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Last login: Wed Jul 20 10:31:50 on ttys000
krisdeMacBook-Pro-2:~ kris$ cd Desktop/smartcab/
krisdeMacBook-Pro-2:smartcab kris$ python -m smartcab.agent
Reporter.__init__(): Initialized with metrics: ['net_reward',
'avg_net_reward', 'final_deadline', 'success']
Simulator.run(): Trial 0
Environment.reset(): Trial set up with start = (6, 6), destination = (2,
5), deadline = 25
RoutePlanner.route_to(): destination = (2, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'forward', 'reward': -0.5, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
-1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'right', 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
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LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': 'right', 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 1
Environment.reset(): Trial set up with start = (4, 2), destination = (7, 1), deadline = 20
RoutePlanner.route_to(): destination = (7, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'left', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'forward', 'reward': -1.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 2
Environment.reset(): Trial set up with start = (8, 5), destination = (4,
4), deadline = 25
RoutePlanner.route_to(): destination = (4, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'left', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
-1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
-1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
'forward', 'reward': -1.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action':
'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
12.0
Simulator.run(): Trial 3
Environment.reset(): Trial set up with start = (4, 4), destination = (8,
4), deadline = 20
RoutePlanner.route_to(): destination = (8, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action':
'left', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
-1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
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Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': -0.5, 'waypoint': 'right'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'forward', 'reward': -1.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'forward', 'reward': -1.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action': 'left', 'reward': -0.5, 'waypoint': 'right'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 13, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, 'deadline': 6, 't': 14, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 15, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 4, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 4, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 3, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 3, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 2, 't': 18, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 2, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 1, 't': 19, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 1, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 0, 't': 20, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 0, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.step(): Primary agent ran out of time! Trial aborted.
Simulator.run(): Trial 4
Environment.reset(): Trial set up with start = (8, 5), destination = (4, 5), deadline = 20
RoutePlanner.route_to(): destination = (4, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'left', 'reward': −1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = −1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'forward', 'reward': −1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = −1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'right', 'reward': −0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'left', 'reward': −1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = −1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action': 'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action': 'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 13, 'action': 'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 6, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 4, 't': 16, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 4, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 3, 't': 17, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 3, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 2, 't': 18, 'action': 'left', 'reward': -1.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 2, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 1, 't': 19, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 1, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 0, 't': 20, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 0, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.step(): Primary agent ran out of time! Trial aborted.
Simulator.run(): Trial 5
Environment.reset(): Trial set up with start = (4, 4), destination = (8, 2), deadline = 30
RoutePlanner.route_to(): destination = (8, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'forward', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': 'left', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = left, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': 'right', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = right, reward = -1.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': 'right', 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'forward', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': 'right', 'right': None, 'left': None}, action = forward, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 15, 't': 15, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 17, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 18, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 19, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 20, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 21, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 8, 't': 22, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 7, 't': 23, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 6, 't': 24, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'forward', 'right': None, 'left': None}, 'deadline': 5, 't': 25,
'action': 'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'red',
'oncoming': 'forward', 'right': None, 'left': None}, action = forward,
reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'forward', 'right': None, 'left': None}, 'deadline': 4, 't': 26,
'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 4, inputs = {'light': 'red',
'oncoming': 'forward', 'right': None, 'left': None}, action = right,
reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 3, 't': 27, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 3, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 2, 't': 28, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 2, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 1, 't': 29, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 1, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 0, 't': 30, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 0, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.step(): Primary agent ran out of time! Trial aborted.
Simulator.run(): Trial 6

```
Environment.reset(): Trial set up with start = (6, 6), destination = (2,
4), deadline = 30
RoutePlanner.route_to(): destination = (2, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'forward', 'right': None, 'left': None}, 'deadline': 30, 't': 0,
'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': 'forward', 'right': None, 'left': None}, action = right,
reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
12.0
Simulator.run(): Trial 7
Environment.reset(): Trial set up with start = (5, 4), destination = (2,
2), deadline = 25
RoutePlanner.route_to(): destination = (2, 2)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
```

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'right', 'right': None, 'left': None}, 'deadline': 15, 't': 10,
'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': 'right', 'right': None, 'left': None}, action = forward,
reward = 12.0
Simulator.run(): Trial 8
Environment.reset(): Trial set up with start = (5, 1), destination = (1,
5), deadline = 40
RoutePlanner.route_to(): destination = (1, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': 'right', 'left': None}, 'deadline': 37, 't': 3, 'action':
'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red',
'oncoming': None, 'right': 'right', 'left': None}, action = left, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 13, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, 'deadline': 25, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 18, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 19, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 9
Environment.reset(): Trial set up with start = (6, 1), destination = (2, 2), deadline = 25
RoutePlanner.route_to(): destination = (2, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 16, 'action': 'right', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 6, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 20, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 4, 't': 21, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 4, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 3, 't': 22, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 3, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 2, 't': 23, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 2, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 1, 't': 24, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 1, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 0, 't': 25, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 0, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 10
Environment.reset(): Trial set up with start = (2, 5), destination = (4, 2), deadline = 25
RoutePlanner.route_to(): destination = (4, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 11
Environment.reset(): Trial set up with start = (2, 4), destination = (5, 3), deadline = 20
RoutePlanner.route_to(): destination = (5, 3)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'left', 'reward': 12.0, 'waypoint': 'left'}

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LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 12
Environment.reset(): Trial set up with start = (7, 1), destination = (4,
3), deadline = 25
RoutePlanner.route_to(): destination = (4, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
```

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 13
Environment.reset(): Trial set up with start = (7, 2), destination = (2,
3), deadline = 30
RoutePlanner.route_to(): destination = (2, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'left', 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 19, 't': 11, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 17, 't': 13, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}

LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 14
Environment.reset(): Trial set up with start = (4, 4), destination = (8, 3), deadline = 25
RoutePlanner.route_to(): destination = (8, 3)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 15
Environment.reset(): Trial set up with start = (6, 5), destination = (8,
1), deadline = 30
RoutePlanner.route_to(): destination = (8, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'right', 'left': None}, 'deadline': 30, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': 'right', 'left': None}, action = right,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}

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LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
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LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 18, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 16
Environment.reset(): Trial set up with start = (5, 6), destination = (1, 4), deadline = 30
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 17
Environment.reset(): Trial set up with start = (2, 6), destination = (5, 2), deadline = 35
RoutePlanner.route_to(): destination = (5, 2)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 34, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 18
Environment.reset(): Trial set up with start = (8, 6), destination = (4,
5), deadline = 25
RoutePlanner.route_to(): destination = (4, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'forward', 'left': None}, 'deadline': 23, 't': 2,
'action': 'left', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': 'forward', 'left': None}, action = left,
reward = −0.5

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 17, 't': 8, 'action':
'forward', 'reward': −1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'left'}, action = forward,
reward = −1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 15, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 16, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 19
Environment.reset(): Trial set up with start = (2, 6), destination = (3, 1), deadline = 30
RoutePlanner.route_to(): destination = (3, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, 'deadline': 29, 't': 1, 'action': 'right', 'reward': 9.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, action = right, reward = 9.5
Simulator.run(): Trial 20
Environment.reset(): Trial set up with start = (7, 4), destination = (1, 4), deadline = 30
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': 'forward', 'left': None}, 'deadline': 25, 't': 5, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': 'forward', 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 20, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': 'left'}, action = forward,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action':
'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 21
Environment.reset(): Trial set up with start = (4, 4), destination = (7,
6), deadline = 25
RoutePlanner.route_to(): destination = (7, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
```

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 22
Environment.reset(): Trial set up with start = (4, 6), destination = (1, 5), deadline = 20
RoutePlanner.route_to(): destination = (1, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 16, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action':
'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
12.0
Simulator.run(): Trial 23
Environment.reset(): Trial set up with start = (6, 2), destination = (8,
4), deadline = 20
RoutePlanner.route_to(): destination = (8, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
```

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 24
Environment.reset(): Trial set up with start = (2, 1), destination = (6, 6), deadline = 45
RoutePlanner.route_to(): destination = (6, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 45, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 44, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 43, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 42, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 42, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 41, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 41, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 11, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
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LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 20, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 21, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 22, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 23, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 24, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 25, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 25
Environment.reset(): Trial set up with start = (8, 6), destination = (8,
2), deadline = 20
RoutePlanner.route_to(): destination = (8, 2)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
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Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 26
Environment.reset(): Trial set up with start = (7, 4), destination = (6, 1), deadline = 20
RoutePlanner.route_to(): destination = (6, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'forward', 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': 'forward', 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 27
Environment.reset(): Trial set up with start = (6, 6), destination = (5, 3), deadline = 20
RoutePlanner.route_to(): destination = (5, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 20, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': 'right', 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 28
Environment.reset(): Trial set up with start = (4, 5), destination = (1, 6), deadline = 20
RoutePlanner.route_to(): destination = (1, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 12.0
Simulator.run(): Trial 29
Environment.reset(): Trial set up with start = (4, 2), destination = (7, 5), deadline = 30
RoutePlanner.route_to(): destination = (7, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 30
Environment.reset(): Trial set up with start = (2, 4), destination = (7, 5), deadline = 30
RoutePlanner.route_to(): destination = (7, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}

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LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'left', 'left': None}, 'deadline': 29, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': 'left', 'left': None}, action = None, reward
= 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'left', 'left': None}, 'deadline': 28, 't': 2, 'action':
'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green',
'oncoming': None, 'right': 'left', 'left': None}, action = right, reward
= -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': 'right', 'right': None, 'left': 'left'}, 'deadline': 15, 't': 15, 'action': 'right', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': 'right', 'right': None, 'left': 'left'}, action = right, reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'left'}

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LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 19, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 20, 'action':
'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 31
Environment.reset(): Trial set up with start = (2, 4), destination = (7,
6), deadline = 35
RoutePlanner.route_to(): destination = (7, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
```

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 18, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 19, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 20, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 21, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 22, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 23, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 24, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 25, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 26, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 27, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 28, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 6, 't': 29, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 30, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 32
Environment.reset(): Trial set up with start = (5, 4), destination = (1, 4), deadline = 20
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}

LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 12.0
Simulator.run(): Trial 33
Environment.reset(): Trial set up with start = (2, 1), destination = (5, 5), deadline = 35
RoutePlanner.route_to(): destination = (5, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 34

Environment.reset(): Trial set up with start = (8, 6), destination = (6, 3), deadline = 25
RoutePlanner.route_to(): destination = (6, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 19, 't': 6, 'action': 'left', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': 'right', 'left': None}, action = left, reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 35
Environment.reset(): Trial set up with start = (4, 2), destination = (6, 5), deadline = 25
RoutePlanner.route_to(): destination = (6, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 36
Environment.reset(): Trial set up with start = (8, 6), destination = (6, 3), deadline = 25
RoutePlanner.route_to(): destination = (6, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}

LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 37
Environment.reset(): Trial set up with start = (4, 4), destination = (7, 6), deadline = 25
RoutePlanner.route_to(): destination = (7, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 38
Environment.reset(): Trial set up with start = (3, 5), destination = (6, 4), deadline = 20
RoutePlanner.route_to(): destination = (6, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': 'forward', 'left': None}, 'deadline': 18, 't': 2, 'action': 'right', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': 'forward', 'left': None}, action = right, reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 39
Environment.reset(): Trial set up with start = (8, 6), destination = (2,
4), deadline = 40
RoutePlanner.route_to(): destination = (2, 4)

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 15, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 16, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 20, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 21, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 22, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 23, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 24, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 25, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 40
Environment.reset(): Trial set up with start = (8, 5), destination = (1, 4), deadline = 40
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'forward', 'right': None, 'left': None}, 'deadline': 35, 't': 5,
'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': 'forward', 'right': None, 'left': None}, action = right,
reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

```
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 15, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 16, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 17, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 18, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 20, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 21, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 41
Environment.reset(): Trial set up with start = (6, 4), destination = (8, 6), deadline = 20
RoutePlanner.route_to(): destination = (8, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'right', 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': 'right', 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

```
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 8, 't': 12, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 42
Environment.reset(): Trial set up with start = (8, 1), destination = (7,
6), deadline = 30
RoutePlanner.route_to(): destination = (7, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
```

```
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'forward', 'right': None, 'left': None}, 'deadline': 21, 't': 9,
'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': 'forward', 'right': None, 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 43
Environment.reset(): Trial set up with start = (3, 2), destination = (3, 6), deadline = 20
RoutePlanner.route_to(): destination = (3, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'right'}, 'deadline': 16, 't': 4, 'action':
'left', 'reward': -1.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'right'}, action = left, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 44
Environment.reset(): Trial set up with start = (3, 3), destination = (6,
1), deadline = 25
RoutePlanner.route_to(): destination = (6, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

```
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 45
Environment.reset(): Trial set up with start = (1, 6), destination = (5,
5), deadline = 25
RoutePlanner.route_to(): destination = (5, 5)
```

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 12.0
Simulator.run(): Trial 46
Environment.reset(): Trial set up with start = (1, 3), destination = (4, 2), deadline = 20
RoutePlanner.route_to(): destination = (4, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action': 'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 12.0
Simulator.run(): Trial 47
Environment.reset(): Trial set up with start = (2, 5), destination = (5, 4), deadline = 20
RoutePlanner.route_to(): destination = (5, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 48
Environment.reset(): Trial set up with start = (2, 6), destination = (7,
1), deadline = 50
RoutePlanner.route_to(): destination = (7, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 50, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 50, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 49, 't': 1, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 49, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 48, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 48, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 47, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 47, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 46, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 46, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 45, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 44, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 43, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 42, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 42, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': 'left'}, 'deadline': 41, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 41, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': 'left'}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, 'deadline': 40, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'left'}

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LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 15, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 16, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 18, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 19, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'right', 'left': None}, 'deadline': 30, 't': 20,
'action': 'left', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': 'right', 'left': None}, action = left, reward
= −0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 29, 't': 21, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
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LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'left'}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 22, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 27, 't': 23, 'action': 'forward', 'reward': -0.5, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = forward, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 24, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 25, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 26, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 27, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 28, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 29, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 30, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 31, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 32, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 33, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 34, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 49
Environment.reset(): Trial set up with start = (3, 1), destination = (7, 5), deadline = 40
RoutePlanner.route_to(): destination = (7, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 13, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 15, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 50
Environment.reset(): Trial set up with start = (8, 4), destination = (1,
4), deadline = 35
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 28, 't': 7, 'action':
'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'left'}, action = left, reward
= -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 27, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': 'left'}, action = forward,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
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LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 17, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 15, 't': 20, 'action': 'forward', 'reward': −1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = −1.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 14, 't': 21, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = 12.0
Simulator.run(): Trial 51
Environment.reset(): Trial set up with start = (6, 6), destination = (2, 3), deadline = 35
RoutePlanner.route_to(): destination = (2, 3)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 52
Environment.reset(): Trial set up with start = (1, 5), destination = (3, 2), deadline = 25
RoutePlanner.route_to(): destination = (3, 2)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 11, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 15, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 53
Environment.reset(): Trial set up with start = (1, 3), destination = (5, 2), deadline = 25
RoutePlanner.route_to(): destination = (5, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 54
Environment.reset(): Trial set up with start = (5, 2), destination = (4, 6), deadline = 25
RoutePlanner.route_to(): destination = (4, 6)

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'right', 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': 'right', 'right': None, 'left': None}, action = None, reward
= 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 55
Environment.reset(): Trial set up with start = (4, 2), destination = (2, 4), deadline = 20
RoutePlanner.route_to(): destination = (2, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 15, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 14, 't': 6, 'action': 'left', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = left, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}

LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': 'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 12.0
Simulator.run(): Trial 56
Environment.reset(): Trial set up with start = (7, 1), destination = (1, 5), deadline = 50
RoutePlanner.route_to(): destination = (1, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 50, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 50, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 49, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 49, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 48, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 48, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 47, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 47, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 46, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 46, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 45, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 44, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 43, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 42, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 42, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 41, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 41, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 10, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 20, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 57
Environment.reset(): Trial set up with start = (1, 3), destination = (5, 3), deadline = 20
RoutePlanner.route_to(): destination = (5, 3)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 58
Environment.reset(): Trial set up with start = (3, 1), destination = (7, 5), deadline = 40
RoutePlanner.route_to(): destination = (7, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 59
Environment.reset(): Trial set up with start = (8, 2), destination = (4, 2), deadline = 20
RoutePlanner.route_to(): destination = (4, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 60
Environment.reset(): Trial set up with start = (2, 3), destination = (8, 5), deadline = 40
RoutePlanner.route_to(): destination = (8, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 61
Environment.reset(): Trial set up with start = (1, 1), destination = (8, 1), deadline = 35
RoutePlanner.route_to(): destination = (8, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, 'deadline': 34, 't': 1, 'action': 'left', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, action = left, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': 'right', 'left': None}, 'deadline': 23, 't': 12, 'action': 'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': 'right', 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 18, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 19, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 20, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 21, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 22, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 23, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'right'}, 'deadline': 11, 't': 24, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'right'}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 25, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 26, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 27, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 28, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 6, 't': 29, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 30, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 4, 't': 31, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 4, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 3, 't': 32, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 3, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 2, 't': 33, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 2, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 62
Environment.reset(): Trial set up with start = (2, 5), destination = (8, 5), deadline = 30
RoutePlanner.route_to(): destination = (8, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 17, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 18, 'action': 'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 12.0
Simulator.run(): Trial 63
Environment.reset(): Trial set up with start = (5, 2), destination = (2, 5), deadline = 30
RoutePlanner.route_to(): destination = (2, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'forward'}, 'deadline': 27, 't': 3,
'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'forward'}, action = None,
reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 64
Environment.reset(): Trial set up with start = (2, 3), destination = (8, 4), deadline = 35
RoutePlanner.route_to(): destination = (8, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

```
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

```
LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 18, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 19, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 20, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 21, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 22, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 23, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

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LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 24, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 25, 'action':
'right', 'reward': 12.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
12.0
Simulator.run(): Trial 65
Environment.reset(): Trial set up with start = (6, 2), destination = (3,
4), deadline = 25
RoutePlanner.route_to(): destination = (3, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'left', 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': 'left', 'right': None, 'left': None}, action = forward,
reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 66
Environment.reset(): Trial set up with start = (3, 5), destination = (8,
3), deadline = 35
RoutePlanner.route_to(): destination = (8, 3)
```

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 23, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = left, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 67
Environment.reset(): Trial set up with start = (4, 6), destination = (2, 1), deadline = 35
RoutePlanner.route_to(): destination = (2, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 68
Environment.reset(): Trial set up with start = (7, 4), destination = (2, 2), deadline = 35
RoutePlanner.route_to(): destination = (2, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 18, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 19, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 20, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 21, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 22, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 69
Environment.reset(): Trial set up with start = (1, 2), destination = (8,
5), deadline = 50
RoutePlanner.route_to(): destination = (8, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 50, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}

```
LearningAgent.update(): deadline = 50, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 49, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 49, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 48, 't': 2, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 48, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 47, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 47, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 46, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 46, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 45, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 44, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 43, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 42, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 42, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 41, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

```
LearningAgent.update(): deadline = 41, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 13, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 15, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 16, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 17, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 70
Environment.reset(): Trial set up with start = (3, 1), destination = (5,
6), deadline = 35
RoutePlanner.route_to(): destination = (5, 6)
```

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'right'}, 'deadline': 31, 't': 4, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'right'}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 71
Environment.reset(): Trial set up with start = (7, 1), destination = (5,
5), deadline = 30
RoutePlanner.route_to(): destination = (5, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 72
Environment.reset(): Trial set up with start = (1, 3), destination = (4, 1), deadline = 25
RoutePlanner.route_to(): destination = (4, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 73
Environment.reset(): Trial set up with start = (1, 3), destination = (3, 1), deadline = 20
RoutePlanner.route_to(): destination = (3, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 74
Environment.reset(): Trial set up with start = (5, 3), destination = (2,
1), deadline = 25
RoutePlanner.route_to(): destination = (2, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 75
Environment.reset(): Trial set up with start = (6, 6), destination = (2, 3), deadline = 35
RoutePlanner.route_to(): destination = (2, 3)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, 'deadline': 32, 't': 3, 'action': 'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': 'forward', 'left': None}, action = right, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 76
Environment.reset(): Trial set up with start = (7, 4), destination = (5, 6), deadline = 20
RoutePlanner.route_to(): destination = (5, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 77
Environment.reset(): Trial set up with start = (6, 5), destination = (3, 4), deadline = 20
RoutePlanner.route_to(): destination = (3, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 9, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
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LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 78
Environment.reset(): Trial set up with start = (2, 6), destination = (5, 4), deadline = 25
RoutePlanner.route_to(): destination = (5, 4)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 13, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 12, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 11, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 10, 't': 15, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 18, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 79
Environment.reset(): Trial set up with start = (8, 3), destination = (3, 4), deadline = 30
RoutePlanner.route_to(): destination = (3, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 27, 't': 3, 'action': 'left', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = left, reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 80
Environment.reset(): Trial set up with start = (8, 6), destination = (3, 4), deadline = 35
RoutePlanner.route_to(): destination = (3, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 81
Environment.reset(): Trial set up with start = (5, 2), destination = (4, 6), deadline = 25
RoutePlanner.route_to(): destination = (4, 6)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 82
Environment.reset(): Trial set up with start = (3, 1), destination = (5, 5), deadline = 30
RoutePlanner.route_to(): destination = (5, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': 'right', 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': 'right', 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 83
Environment.reset(): Trial set up with start = (8, 1), destination = (1, 6), deadline = 60
RoutePlanner.route_to(): destination = (1, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 60, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 60, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 59, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 59, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 58, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 58, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 57, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 57, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 56, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 56, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 55, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 55, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 54, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 54, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 53, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 53, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 52, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 52, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 51, 't': 9, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 51, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 50, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 50, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 49, 't': 11, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 49, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 48, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
```

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LearningAgent.update(): deadline = 48, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': 'forward', 'left': None}, 'deadline': 47, 't': 13,
'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 47, inputs = {'light': 'green',
'oncoming': None, 'right': 'forward', 'left': None}, action = forward,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 46, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 46, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 45, 't': 15, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 44, 't': 16, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 43, 't': 17, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 42, 't': 18, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 42, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 41, 't': 19, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 41, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 20, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 21, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 39, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 22, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 23, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 24, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 84
Environment.reset(): Trial set up with start = (8, 1), destination = (5, 6), deadline = 40
RoutePlanner.route_to(): destination = (5, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 13, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 16, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 18, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 19, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 85
Environment.reset(): Trial set up with start = (8, 4), destination = (1, 4), deadline = 35
RoutePlanner.route_to(): destination = (1, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 33, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 31, 't': 4, 'action':
'right', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'left'}, action = right, reward
= -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': 'left'}, 'deadline': 29, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': 'left'}, action = forward,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'left', 'reward': 12.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
12.0
Simulator.run(): Trial 86
Environment.reset(): Trial set up with start = (4, 1), destination = (8,
5), deadline = 40
RoutePlanner.route_to(): destination = (8, 5)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
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Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': 'right'}, 'deadline': 35, 't': 5, 'action':
'right', 'reward': −0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': 'right'}, action = right,
reward = −0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 11, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 87
Environment.reset(): Trial set up with start = (2, 2), destination = (6, 4), deadline = 30
RoutePlanner.route_to(): destination = (6, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 29, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 88
Environment.reset(): Trial set up with start = (2, 6), destination = (6, 4), deadline = 30
RoutePlanner.route_to(): destination = (6, 4)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'left', 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': 'left', 'right': None, 'left': None}, action = forward,
reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 12, 't': 18, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 89
Environment.reset(): Trial set up with start = (5, 5), destination = (6, 1), deadline = 25
RoutePlanner.route_to(): destination = (6, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 90
Environment.reset(): Trial set up with start = (1, 4), destination = (5, 1), deadline = 35
RoutePlanner.route_to(): destination = (5, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = left, reward =
2.0

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 91
Environment.reset(): Trial set up with start = (1, 1), destination = (7, 5), deadline = 50
RoutePlanner.route_to(): destination = (7, 5)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 50, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 50, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 49, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 49, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 48, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 48, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 47, 't': 3, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 47, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 46, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 46, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 45, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 45, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 44, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 44, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 43, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 43, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 42, 't': 8, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 42, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 41, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 41, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 40, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 40, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 12, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 38, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 13, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 15, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 16, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 17, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 18, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 92
Environment.reset(): Trial set up with start = (5, 3), destination = (1, 5), deadline = 30
RoutePlanner.route_to(): destination = (1, 5)

Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 16, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 93
Environment.reset(): Trial set up with start = (7, 1), destination = (7, 6), deadline = 25
RoutePlanner.route_to(): destination = (7, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 0, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 4, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 5, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 6, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 7, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
'left', 'right': None, 'left': None}, 'deadline': 17, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': 'left', 'right': None, 'left': None}, action = None, reward
= 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
'left', 'right': None, 'left': None}, 'deadline': 16, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 16, inputs = {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 15, 't': 10, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 94
Environment.reset(): Trial set up with start = (5, 5), destination = (8, 1), deadline = 35
RoutePlanner.route_to(): destination = (8, 1)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 95
Environment.reset(): Trial set up with start = (7, 1), destination = (4, 6), deadline = 40
RoutePlanner.route_to(): destination = (4, 6)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 40, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 40, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 39, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 39, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 38, 't': 2, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}

LearningAgent.update(): deadline = 38, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 37, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 37, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 36, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 36, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 35, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 34, 't': 6, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 33, 't': 7, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 32, 't': 8, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 31, 't': 9, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 96
Environment.reset(): Trial set up with start = (2, 6), destination = (1, 1), deadline = 30
RoutePlanner.route_to(): destination = (1, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, 'deadline': 24, 't': 6, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': 'forward'}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
Simulator.run(): Trial 97
Environment.reset(): Trial set up with start = (8, 4), destination = (3,
2), deadline = 35
RoutePlanner.route_to(): destination = (3, 2)
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 35, 't': 0, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 35, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 34, 't': 1, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 34, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 33, 't': 2, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 33, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 32, 't': 3, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 32, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 31, 't': 4, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 31, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 30, 't': 5, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 30, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 29, 't': 6, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 28, 't': 7, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}

```
LearningAgent.update(): deadline = 28, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 27, 't': 8, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 26, 't': 9, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 25, 't': 10, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 24, 't': 11, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 23, 't': 12, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 22, 't': 13, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 21, 't': 14, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 21, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 15, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 16, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
```

LearningAgent.update(): deadline = 19, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 98
Environment.reset(): Trial set up with start = (4, 2), destination = (1, 1), deadline = 20
RoutePlanner.route_to(): destination = (1, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 20, 't': 0, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 19, 't': 1, 'action': 'left', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = left, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 18, 't': 2, 'action': 'right', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = right, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 17, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 16, 't': 4, 'action': 'forward', 'reward': -1.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red', 'oncoming': 'left', 'right': None, 'left': None}, action = forward, reward = -1.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, 'deadline': 15, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green', 'oncoming': 'left', 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 14, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 14, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 13, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 13, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0

Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 12, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 12, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, 'deadline': 11, 't': 9, 'action': 'left', 'reward': -0.5, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 11, inputs = {'light': 'green', 'oncoming': None, 'right': 'left', 'left': None}, action = left, reward = -0.5
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 10, 't': 10, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 10, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 9, 't': 11, 'action': 'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 9, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = right, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 8, 't': 12, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 8, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 7, 't': 13, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 7, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 6, 't': 14, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 6, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 5, 't': 15, 'action': 'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 5, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 12.0
Simulator.run(): Trial 99
Environment.reset(): Trial set up with start = (8, 3), destination = (4, 1), deadline = 30
RoutePlanner.route_to(): destination = (4, 1)
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 30, 't': 0, 'action': 'left', 'reward': 2.0, 'waypoint': 'left'}

LearningAgent.update(): deadline = 30, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = left, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 29, 't': 1, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 29, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 28, 't': 2, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 28, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 27, 't': 3, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 27, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 26, 't': 4, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 26, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 25, 't': 5, 'action': 'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 25, inputs = {'light': 'green', 'oncoming': None, 'right': None, 'left': None}, action = forward, reward = 2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 24, 't': 6, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 24, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 23, 't': 7, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 23, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 22, 't': 8, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 22, inputs = {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, action = None, reward = 0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming': None, 'right': None, 'left': None}, 'deadline': 21, 't': 9, 'action': None, 'reward': 0.0, 'waypoint': 'forward'}

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LearningAgent.update(): deadline = 21, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 20, 't': 10, 'action':
'forward', 'reward': 2.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 20, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 2.0
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 19, 't': 11, 'action':
'right', 'reward': 2.0, 'waypoint': 'right'}
LearningAgent.update(): deadline = 19, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = right, reward =
2.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 18, 't': 12, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 18, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 17, 't': 13, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 17, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Step data: {'inputs': {'light': 'red', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 16, 't': 14, 'action':
None, 'reward': 0.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 16, inputs = {'light': 'red',
'oncoming': None, 'right': None, 'left': None}, action = None, reward =
0.0
Environment.act(): Primary agent has reached destination!
Environment.act(): Step data: {'inputs': {'light': 'green', 'oncoming':
None, 'right': None, 'left': None}, 'deadline': 15, 't': 15, 'action':
'forward', 'reward': 12.0, 'waypoint': 'forward'}
LearningAgent.update(): deadline = 15, inputs = {'light': 'green',
'oncoming': None, 'right': None, 'left': None}, action = forward, reward
= 12.0
krisdeMacBook-Pro-2:smartcab kris$
```