**A\* Algorthim for path planning for the rescue robot**

Given: robot\_pos, goal\_pos, map

robot\_node = Node(robot.get\_pos(), parent\_Node=None);

open\_list = PriorityQueue(robot\_node);

CheckedNodes = List(robot\_node);

while open\_list.!empty() do

currentNode = open\_list.pop();

if currentNode.position == goal.position then

CheckedNode.add(currentNode);

break;

end

foreach aNeighborNode in neighborNodesOf(currentNode, map) do

priority = get\_cost\_of(aNeighborNode);

open\_list.add\_with\_priority(aNeighborNode, priority);

CheckedNodes.add(aNeighborNode);

end

end

path\_to\_follow = calc\_path\_to\_follow(CheckedNodes);

return path\_to\_follow