

## **A\* Algorithm 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
```