

BFS Algorithm

Let fringe be a list containing state

loop:

if fringe is empty return failure

Node \leftarrow remove-first (fringe)

if Node is a goal

then return the path from initial state to node

else generate all successor of Node, and
add generated node back to the fringe

end loop

DFS Algorithm

Let fringe be a list containing state

loop

if fringe is empty return failure

Node \leftarrow remove-first (fringe)

if Node is a goal

then return the path from initial state to node

else generate all successor of node, and
add generated node ^{front} to the fringe

End loop

18/10/21

Vacuum Cleaner

State:

State is determined by both agent and dirty location. Agent is in one of the two locations, each may or may not contain any dirt.

Initial state:

Any state can be ^{assigned} as initial state.

Actions:

Right: the agent moves to the right to find any dirt present

Left: the agent moves to left to find any dirt present

suck: IF dirt is present, the agent suck the operation dirt.

Repeats until all the dirt is sucked

ends when all the squares are cleaned

Gen
18.10