

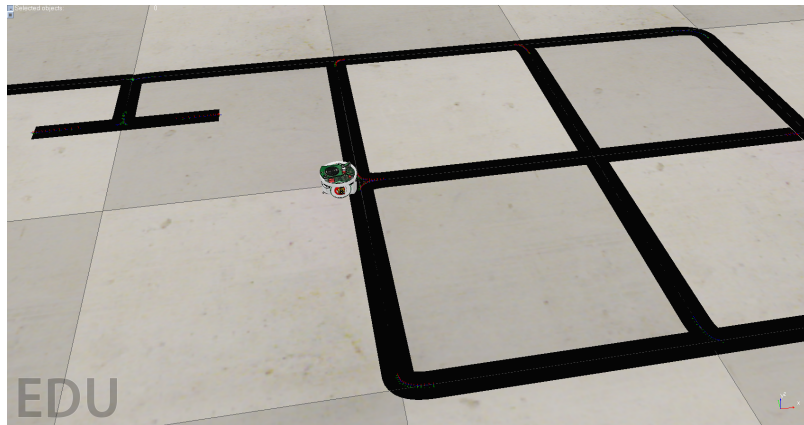
Finding The Shortest Path

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Project Description

Simulation map in Vrep.



Model

State

Crossroads in map.

Detected the road signs by camera.

Action

← → ↑ ↓

Reward

+10 at the destination state and 0 at the other states.

Also at the blind alley it will get a very poor reward such as -100.

Q function

$$Q(S_t, A_t) \leftarrow Q(S_t, A_t) + \alpha [R_{t+1} + \gamma \max_a Q(S_{t+1}, a) - Q(S_t, A_t)]$$