

Modifications made:

Currently, test_map4.txt did not find a goal. This is because of a timestep mismatch.

The hw1 readme PDF mentioned that whatever time the planner takes will be 'rounded up' to the nearest integer, and the target will be moved those many steps before the plan starts. I assumed that in every run, atleast 1 timestep will be skipped (since it is being rounded up), i.e. I always assumed that the target will start from timestep 1 when the plan starts to implement instead of timestep 0. I wrote the code under this assumption, and I subtracted 1 from the timestep of each of my goal states.

In the current setup for test_map4.txt, the timesteps are 0, 1, 2, 3, and 4. Based on my assumption, if 1 timestep is always skipped, the robot only has 3 remaining timesteps to cover a distance of 4 cells, which is not possible, hence it was not able to find the goal.

I have now changed my goal setup where I do not subtract 1 timestep from each of my goal states. The planner runs as expected and is able to catch the target, including in test_map4.txt