

COMS4045A/COMS7049A - Robotics - S1 - 2024

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Path Planning

Due: Wednesday, 22 May 2024, 11:59 PM

✓ Done

For this question you are required to navigate between locations in a two dimensional domain with obstacles. You are given as input the current and target coordinates of a robot, as well as the top left and bottom right points of rectangular obstacles. You must produce a feasible path from the starting point to the target point without going through any of the obstacles.

2.1 Input format

starting point;target point
list of obstacle coordinates
-1

Example:
10,10;80,30
20,10;20,50
20,50;90,50
30,30;40,40
-1


2.2 Output format

The output should be a list of waypoints the robot will move through
10,10
10,51
91,51
91,30
80,30

Implement RRT or PRM to solve this problem. In your submission, indicate which algorithm you chose and why.

Submit a zip file containing your code in any language

Submission status

Submission status	Submitted for grading	
Grading status	Not graded	
Time remaining	Assignment was submitted 3 hours 43 mins early	
Last modified	Wednesday, 22 May 2024, 8:15 PM	
File submissions	<div><div> Path-Planning.zip</div><div>22 May 2024, 8:15 PM</div></div>	

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