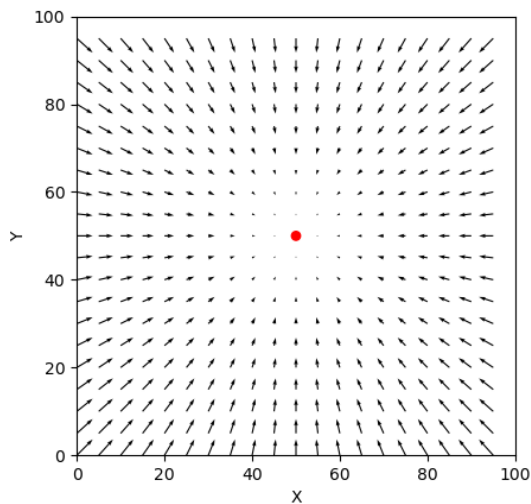


Report for Assignment 1

Nirnay Roy

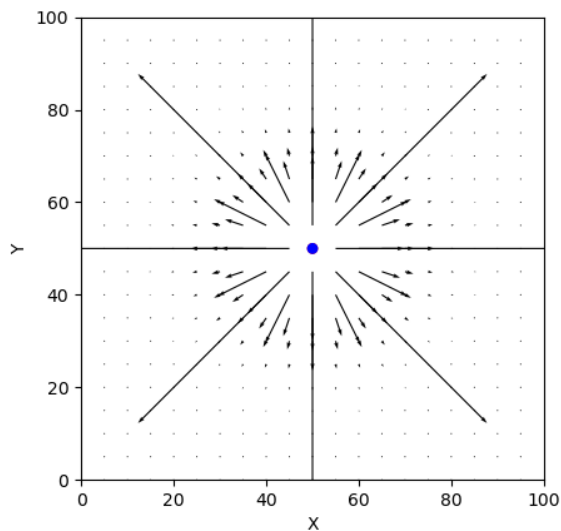
16128

Q1.



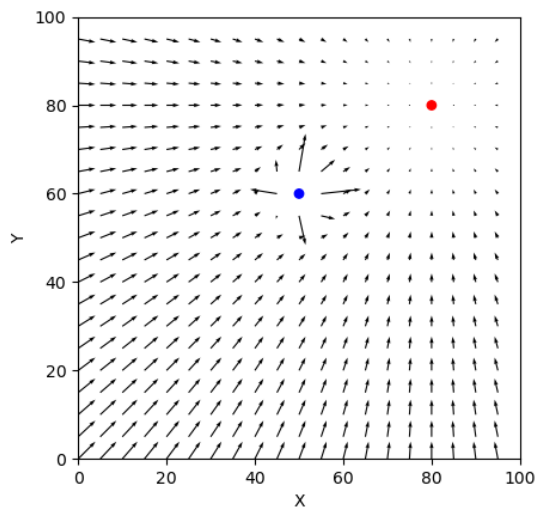
The above image gives the attractive potential field which is proportional to the square of the distance from the goal.

Q2.



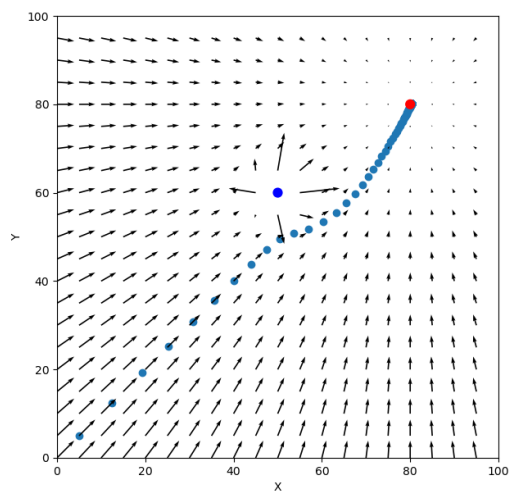
The above image shows the repulsive potential which is proportional to the inverse of the distance from the obstacle.

Q3.



The image above shows the combined attractive and repulsive potential field. The goal is the red circle and the obstacle is the blue circle.

Q4.



The image above shows the path taken by the robot to reach the goal(red). We can see it bypassing the obstacle(blue).

Q5. Below are the paths taken by the robot in an environment with 5 and 10 obstacles respectively.

