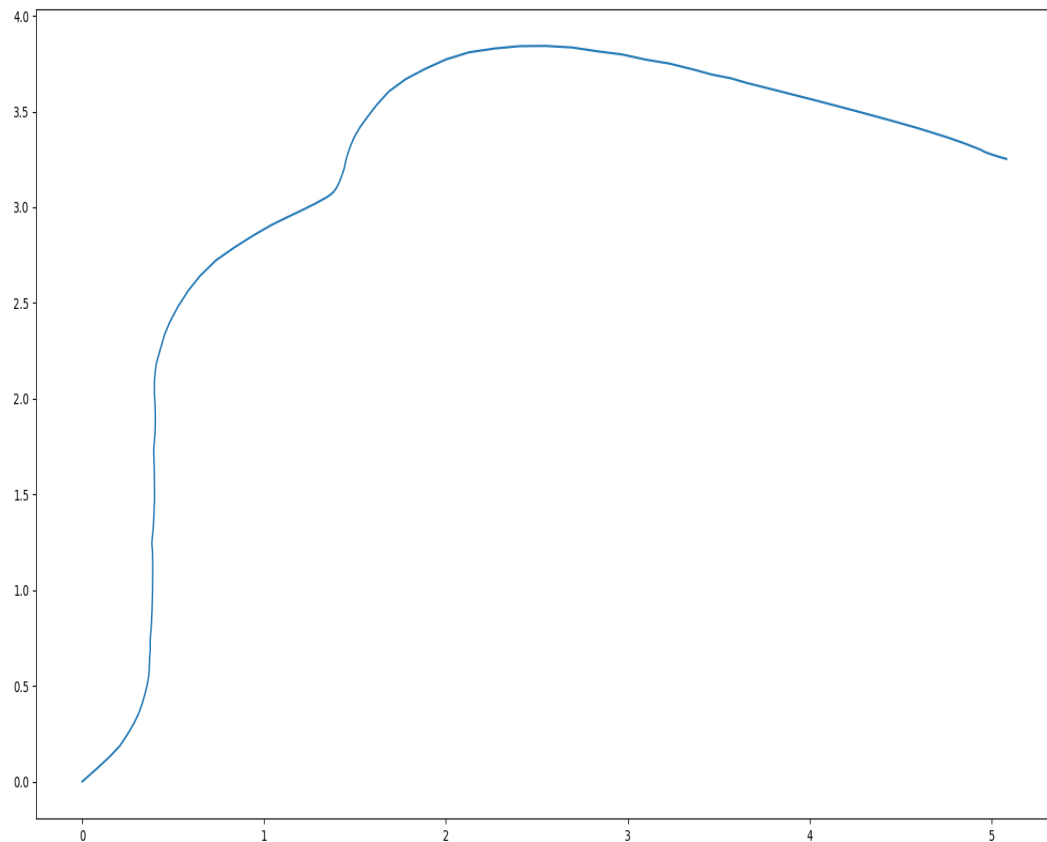


Assignment 2 Report

The path traveled by the bot:



Here, it is a simple implementation of the potential function method as explained in the slides/reference book.

There are two functions for calculating attractive and repulsive potentials respectively, which are in turn added to get the required potential.

The algorithm was getting stuck in ROS at around $x=4.7$ with the `step_size=0.1` (given in `input.txt`) but since it was running fine with python (no ROS) this behavior can possibly be attributed to the noise of the bot. Hence, to overcome that whenever the increment in both x and y coordinates went below a certain threshold (0.001) I increased the `step_size` by multiplying it by 1.1. **(path image has also been uploaded in the git repo)**