Andrew Tarnoff

Mobile Robot Programming Problem Set #1

CODE LINK: https://github.com/art81/EECS373/tree/master/my_stdr_control/src
Then click on "my_stdr_open_loop_commander.cpp"

Approach/Observations:

In order to complete this assignment I first wrote two functions, one that would move the robot forward and certain amount of meters ("moveForward") and another that was to rotate the robot a certain amount while keep the x and y coordinates the same ("turn"). I then made a series of calls to these functions to make the robot (theoretically) move to the top left of the map by looking at the map with the 1mx1m grid overlay. I soon found that it was not as easy as that because the robot did not move the exact distance nor rotate the exact amount that I was commanding. For example, I would command 1m/s for 3 seconds and the robot would not move exactly 3m and something similar to this also happened in the angular direction but commanding time and angular velocity. I assume this was because of issues with timing of commands and stuff of this sort but I fixed the errors by tweaking the commanded numbers until the robot successfully made it to the desired location.