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ps7

This homework was designed to allow us to get first hand knowledge about feedback control for steering algorithms. The first part was to use open loop controlling to direct a simulated robot from a start pose to an end pose given a set of waypoints. This algorithm was not reliable in getting the robot from the start to the goal because there was no feedback present in the control loop. This had the effect of the robot driving “blind” i.e. not able to react to being off course.

The second algorithm involved cheating i.e. getting direct odometry results from the simulation environment. This had the effect of the robot knowing exactly where it is in the world at all times, and is not realistic of robots in the real world (there is no omnipotent being telling the robot where it is). This algorithm was quite reliable in getting the robot from the start pose to the end pose, and was very adaptable to reaching all waypoints.

Unfortunately, I know these results from my experience working in a robotics lab and using ROS, not from running this code in the assignment. I am having a hardware issue when running gazebo and the mobot, and as such, my mobot does not move in the world. The experience I am talking about is actually with the real life version of the “mobot” that is in the biorobotics lab run by Dr. Quinn.