ENPM690

Homework #3

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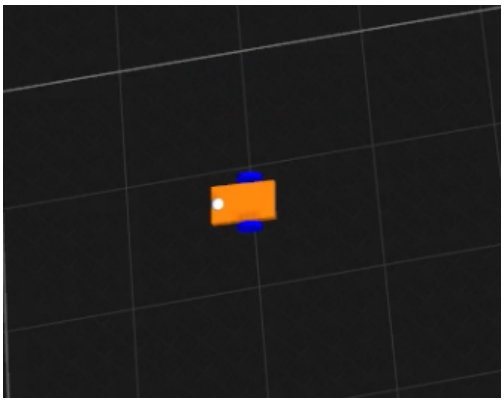
Q1. Program a simple robot vehicle in a simulated environment (robot simulation tools and libraries may be used). Your simulated robot should exhibit at least one sensor input (e.g., forward-looking range sensor that returns the distance to the nearest obstacle) and two control outputs (e.g., left and right wheels, or speed and direction of vehicle motion). Show that you can drive your robot around through mouse or keyboard inputs.

Ans. The robot used is a simple 2 wheeled robot with a lidar scanner. The output can be seen at **/output/teleop_robot.mp4**



Q2 . Add a programmed behavior to your robot, such as following (or avoiding) a light, or wandering, while avoiding collisions with obstacles

Ans. The robot used is a simple 2 wheeled robot with a lidar scanner. The output can be seen at /**output/behaviour_robot.mp4**

References:

1. https://www.theconstructsim.com/ros-projects-exploring-ros-using-2-wheeled-robot-part-1/#part1