David Casente, Jerray Dewa, Ross Kasal, and Toshiki Nazikian

Professor Newman

Mobile Robotics

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Beta Group Lab 2 Report

There were a few differences in the code and behavior of the turtle bot and the STDR. While the logic of the lidar alarm did not change at all between the two, we needed to decrease the speed of the physical robot's translation and rotation in an effort to not damage the robot. In addition, the physical robot subscribes to different topics than the STDR and so we adapted the code accordingly for both the lidar alarm and the reactive commander. The Robot's scan was at a certain height, meaning that the robot would run into low obstacles, so we needed to use large objects, which was not a problem in the 2D world of the STDR. In addition, because the physical robot uses a camera to scan its surroundings, the scan did not cover the full 180 degrees that the STDR had access to and so the physical robot could not detect adjacent obstacles as well as the simulation.

Youtube Link: https://www.youtube.com/watch?v=2egVtU3ACSQ

Github Link: https://github.com/RossKasal/EECS476