Epsilon Group

Dr. Newman

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Lab 2: Reactive Control

The differences in code between the stdr simulator lidar alarm node and the Kobuki robot lidar alarm node involve changing the topic of the scan name to “scan”, changing the minimum safe distance before the alarm goes off from 0.4 to 1.2. And in the reactive commander node, we had to change the speed and yaw rate to very low values for safety.

The difference in behavior between the stdr simulator actions and the Kobuki robot actions were that the real Kobuki robot turns left accidentally which makes it harder to predict behavior, and that real robot was not as good at detecting small obstacles. This may have been because our real obstacles were peoples legs, and the simulator used a large wall. The real robot also lurches forward abruptly, while the simulated robot motion moves continuously.

Both the robots responded similarly to seeing objects, but the real life robot had slightly poorer motion control.

Youtube Link to Video: https://youtu.be/7MTlex87JAc

Github Link to Code: https://github.com/Trent0881/mr376lab/tree/master/rc