Epsilon Group

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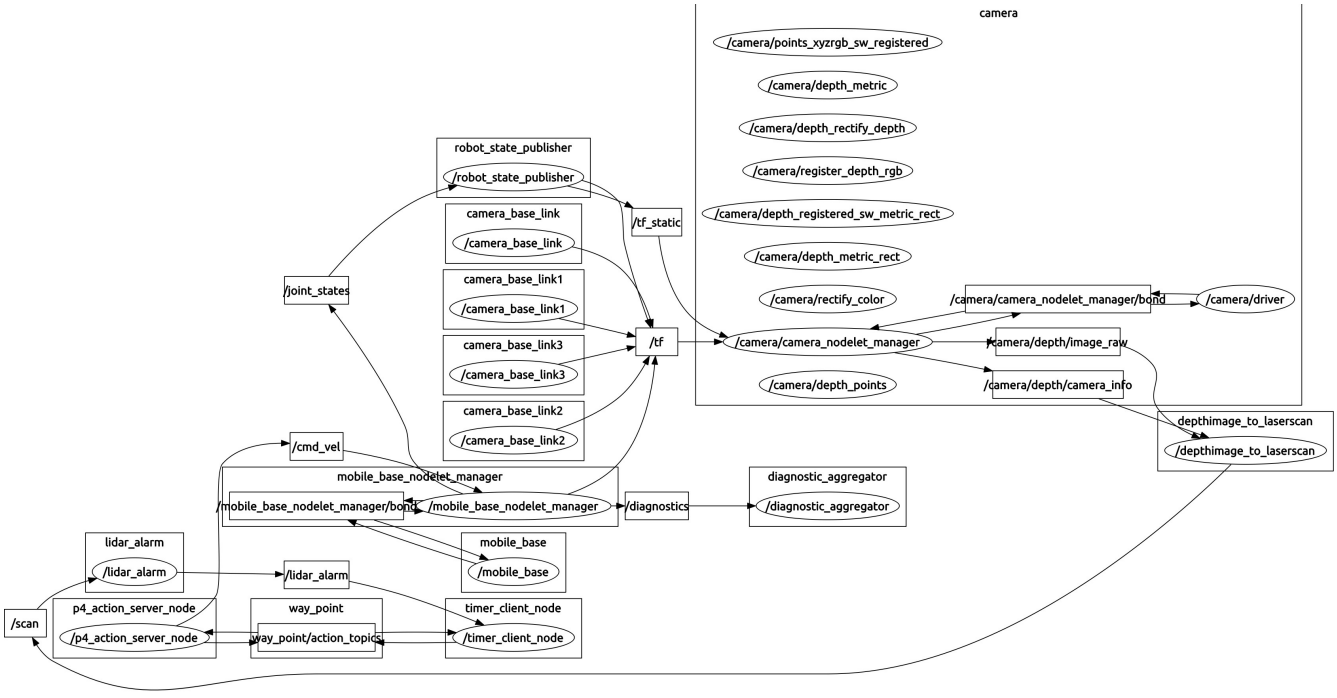
Lab 4: Kobuki Action Path Server

The server executes commands from the client over the action sever called “way_point”. The server will check to see if the lidar alarm turns on. If it has, it stops executes by halting the current goal, and saving both the loop argument (for the goal) and the current timer count. When the lidar alarm turns off, the loop argument and the timer count are resumed from what they were. This allows the robot to start off with the same goal after an alarm as before the alarm turned on. The action server and client operate over a ROS action server.

As seen below in a graph of the nodes and topics (generated by rqt_graph during the robot operation), with our nodes in the bottom left.



One behavior that the robot does is that it spins between moving laterally. The robot is not stopped (because the lidar alarm hasn't gone off), it is just slowly spinning in place as intended. As seen in the video, our robot does stop when an object is in front of it as we expected. We commanded the robot to move in an octagon pattern repeatedly, which the robot does faithfully.

Also, the code on Github is in the zip file called lab4.zip.

Github link: https://github.com/Trent0881/mr376lab/blob/master/lab4.zip

Youtube link: https://youtu.be/18CB6HlXIAg