Andrew Tarnoff

Mobile Robot Programming Problem Set #6

CODE LINK:
https://github.com/art81/EECS373/tree/master/MobileRobotics/PS6_baxter_variations

Changes Made to enable the control of baxter arms:

In order to gain control over the Baxter arms, it did not actually require any changes to the robot urdf, or xacro files. Instead, the baxter_tools package already includes a function that enables the robot to be controlled. To run this function just type "rosrun baxter_tools enable_robot.py -e" into the command line and now you have control over the arms. The baxter_tools package also provides a python script that will command a joint trajectory to the arms and to run that just type "rosrun baxter_tools tuck_arms.py -u" into the command line to test if you actually have control over robot joint positions. In my video, I also show that after running the "enable_robot" command you can command joint positions through the command line using "rostopic pub" which also means it would be easy to write our own node that commands joint trajectories.

Note: Initially I tried making changes to the urdf, xacro, and yaml files but was unsuccessful in getting the robot to move its joints. The code that was changed is in the baxter_variations_2 folder inside of the git link above. I tried getting this to work for a while but was unsuccessful and was then notified about the above solution and so I went with that one and immediately gained complete control over the arms.