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Assignment 8: UR10 Robot Reachability Tests

For this assignment, I changed the baxter reachability code to reflect the UR10 robot and it's interface, and then rewrote the testing code to test one of 6 z-heights depending on a variable in the program. Then I ran the program for all the specified heights, and plotted them on a 2d plot using Octave. In this package there is a plot of the Baxter reachability/approachability (the same test but at 2 different heights), a folder for all 6 pictures of the UR10 reachability, and a folder for the data set corresponding to each pictured plot. The z1 plot (reaching the ground from the UR10 arm base) produced no points because the arm can't reach there at all; the corresponding point file is empty, and there is no plot included. The modified learning\_ros package (ur\_fk\_ik) with my additional node source code file (ur10\_reach.cpp) is also included.