

Robotics II: homework 1

Due 2/15/2018

What to turn in.

- 1) Fill in the table on the HW with the constant values and indicate which parameters are the joint variables.
- 2) Commented code that you wrote. If you created a visualizer and can easily include a screen shot, do that too, but the visualizer is not required.
- 3) 3a) Typeset or neatly written (so I can read it) analytical solution of the WAM IK. Indicate how your formulas represents the multiple solutions possible. 3b) Commented code that you wrote. 3ci) Commented code that you wrote. One plot of joint angles over the trajectory. All 7 should be in one plot. 3cii) Commented code that you wrote. Another plot of all the joint angles along the trajectory. The path followed for 3ci) and 3cii) must be the same one.
- 4) Commented code that you wrote and the output file of 0's and 1's obtained when using the provided input file of joint angle vectors. (NOT REQUIRED, BUT INTERESTING: Represent the boxes with bounding spheres or unions of spheres and see if you can speed up your collision checking without losing accuracy.)