EE368 Robotic Motion and Control

Spring 2024

Group Assignment: Jacobian (5%)

Date: 5.11 24:00

Reference Material:

- Chapter 4 of Robot Modeling and Control
- Chapter 6.2.1 of MODERN ROBOTICS MECHANICS, PLANNING, AND CONTROL
- https://github.com/AtsushiSakai/PythonRobotics/blob/master/ArmNavigation/n_joint_arm_3d/NLinkArm3d.py
- http://wiki.ros.org/rqt_plot

Task:

1. Add comments to code in *jacobian.py*
2. Verify whether the code for calculating the forward kinematics of the manipulator is correct.
3. Move the manipulator and draw the **velocity** curve of the end-effector of the manipulator. Describe the curve. (hint: use rqt_plot)
4. Apply a small force to the end-effector of the manipulator and draw the **force** curve of the end-effector of the manipulator. Describe the curve. (hint: use rqt_plot)

Submission:

Submit code with comments and report on Blackboard system.