RBE 500 – Group Assignment – Part 2

This assignment is about controlling the robot joints.

1) First fix the all the joints except the last joint by changing the joint type field of the corresponding joints to “fixed” in your robot description file.
2) Write a position controller node.
    a. This node will get the joint positions from Gazebo and will be able to send joint efforts by “/gazebo/apply_joint_effort” topic.
    b. Design a PD controller for the last joint (tune the parameters; you do not need to calculate).
    c. Implement a service that gets a reference position for the last joint, and makes it go there.
    d. Record the reference position and current position of the joint in a text file, and plot it via Matlab.

Write a report about your implementation. The report does not have to be long, but it should explain all the steps of the implementation. Copy-pasting the code and the results is not enough. Submit your report together your node.