

KAIST ME553 Robot Dynamics

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Exercise 3

You will be using the A1 robot model for this exercise. You should download or clone the exercise repo here: https://github.com/jhwangbo/ME553_2022. If you already have the project, pull (using git) or download it again.

Your goal is to compute the mass matrix and nonlinearities (the rest of the terms in PNE) of the A1 robot. You can find the description of the robot in “resource/a1/urdf/a1.urdf”. You can find about the URDF convention here: <http://wiki.ros.org/urdf/XML>. **You should use the Projected Newton Euler equation for this exercise. No other methods are allowed.**

Deliverable: A single header file named “exercise3_STUDENTID.hpp”. Use the provided template. You should replace “STUDENTID” with your real student id number. Submit it on KLMS.

Deadline: 5pm, 18th of April