Robotics II

Day 9: Dynamics

Chua Tzong Lin

B7TB1703

chuatl@mems.mech.tohoku.ac.jp

1. Derive the equation of motion for the following systems.

The PDF of handwritten working is included together inside the attached folder under the name <RoboticsIIHW_Workings.pdf>.

Following are the final results of the calculation.

* 1. Equation of motion for the 1st System

The python script is implemented under the filename [Exercise\_1.py](Script/Exercise_1.py).

* 1. Equation of motion for the 2nd System

The python script is implemented under the filename [Exercise\_2.py](Script/Exercise_2.py).

* 1. Equation of motion for the 3rd System

The python script is implemented under the filename [Exercise\_3.py](Script/Exercise_3.py).

* 1. Equation of motion for the 4th System

The python script is implemented under the filename [Exercise\_4.py](Script/Exercise_4.py).

In this case the of the python script, only forces can be applied to the system, whereas torques have to be resolved into forces to be applied. Hence in this case, in the python script, the non-restorative force on the 2nd link is assumed to be zero.