

# 6ELEN018W - Tutorial 7 Exercises

## Revision for the In-class Test

Attempt as many as possible from the questions found at the following URL. Sample answers are provided for the majority of the questions, but if you have any questions ask your tutor.

[https://ddracopo.github.io/DOCUM/courses/6elen018w/sample\\_in\\_class\\_questions\\_all\\_2023.pdf](https://ddracopo.github.io/DOCUM/courses/6elen018w/sample_in_class_questions_all_2023.pdf)

## Payload and Gravity Load (Lecture 7)

Create a Panda robot based on the Python Robotics toolbox (see Lecture 4).

1. Calculate the torques required for the joint motors so that the robot will not be moving ( $\dot{\mathbf{q}} = 0, \ddot{\mathbf{q}} = 0$ ). You should calculate this for its *qr* configuration (see Lecture 4). Use the `rne` method.
2. Do the same calculation when the robot operates in the moon. Use the `gravload` method.