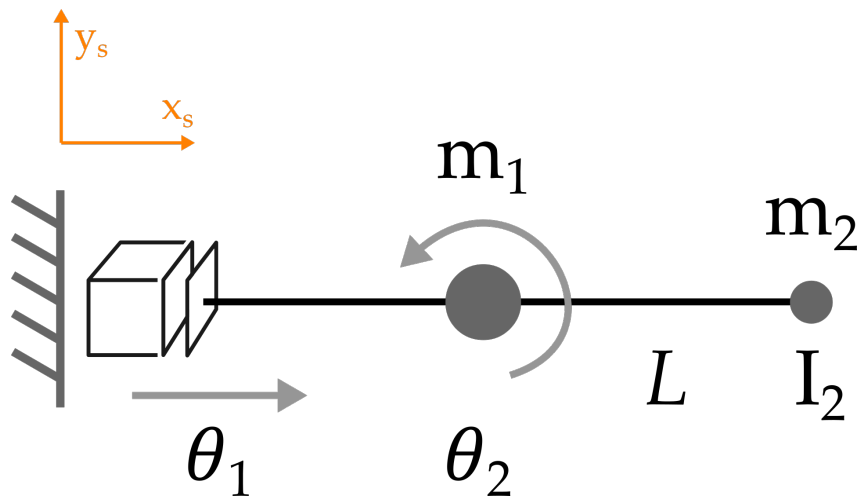# Practice Set 24

Robotics & Automation
Dylan Losey, Virginia Tech

Using your textbook and what we covered in lecture, try solving the following problems. For some problems you may find it convenient to use Matlab (or another programming language of your choice). **We will cover the solutions in the next lecture.**

Problem 1

Find the dynamics for the robot shown above. Your answer should be of the form:

$$\tau = M(\theta)\ddot{\theta} + C(\theta, \dot{\theta})\dot{\theta} + g(\theta) \tag{1}$$

List the mass matrix M, the Coriolis matrix C, and the gravity vector g.