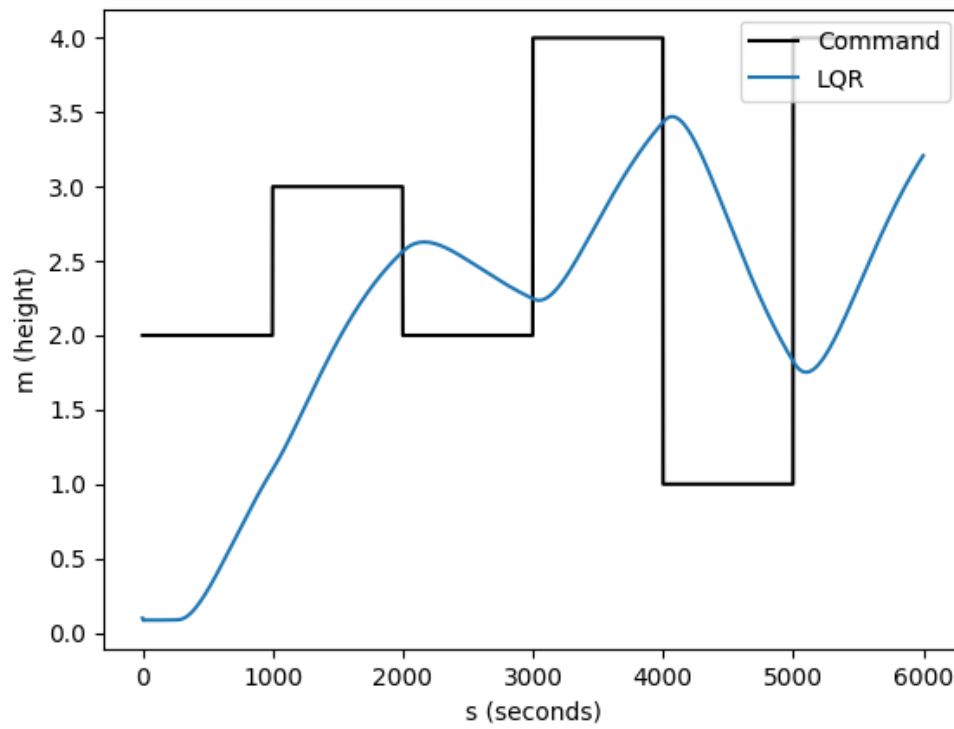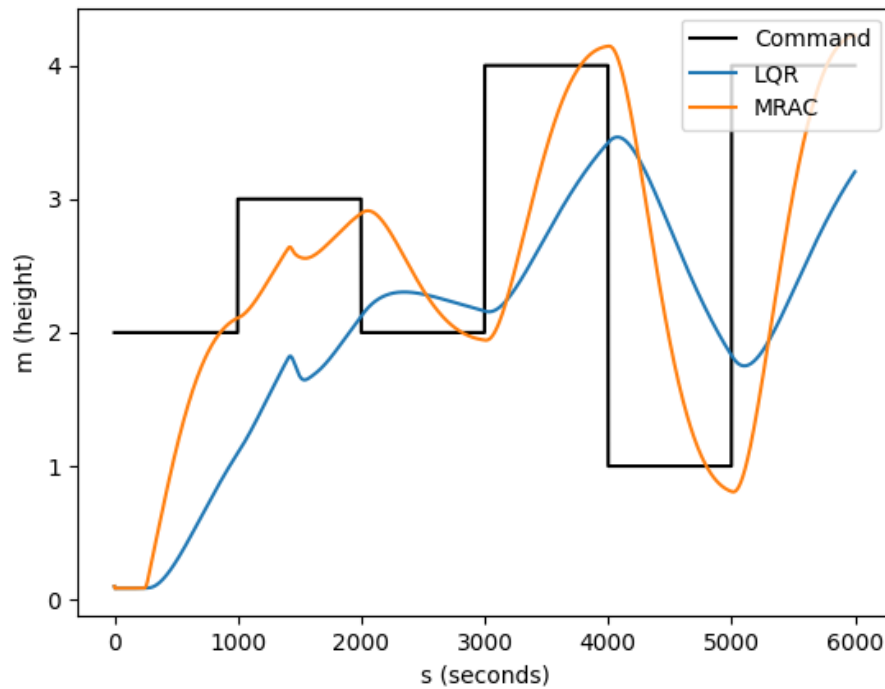# Exercise 1:

This is the final plot of my model. The error of my model is 0.486

Exercise 2:

(1) This is the result of my LQR controller and MRAC controller. My percentage loss of thrust is 50%

(2) I find that when the percentage loss of thrust is 60%, LQR fails but MRAC still works. This is the final plot of my model.