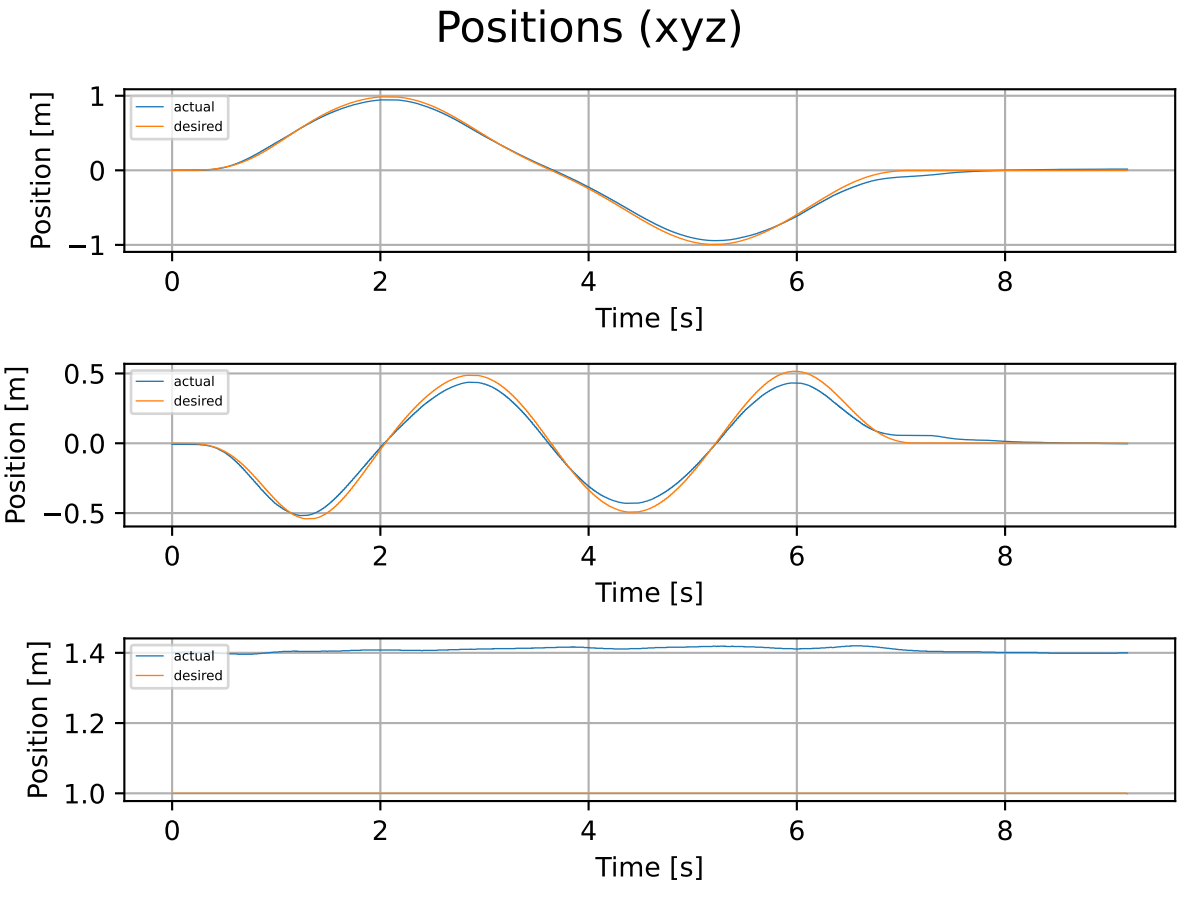
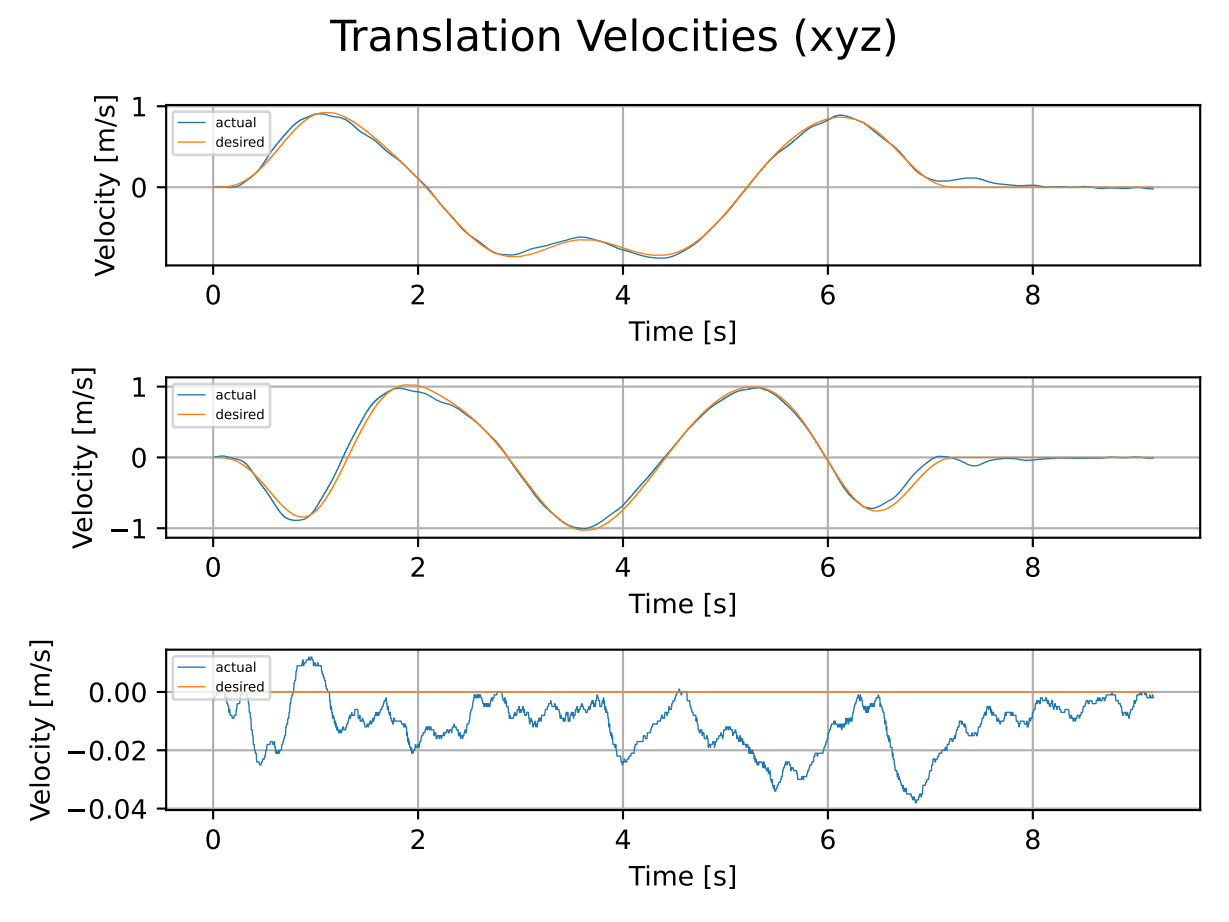
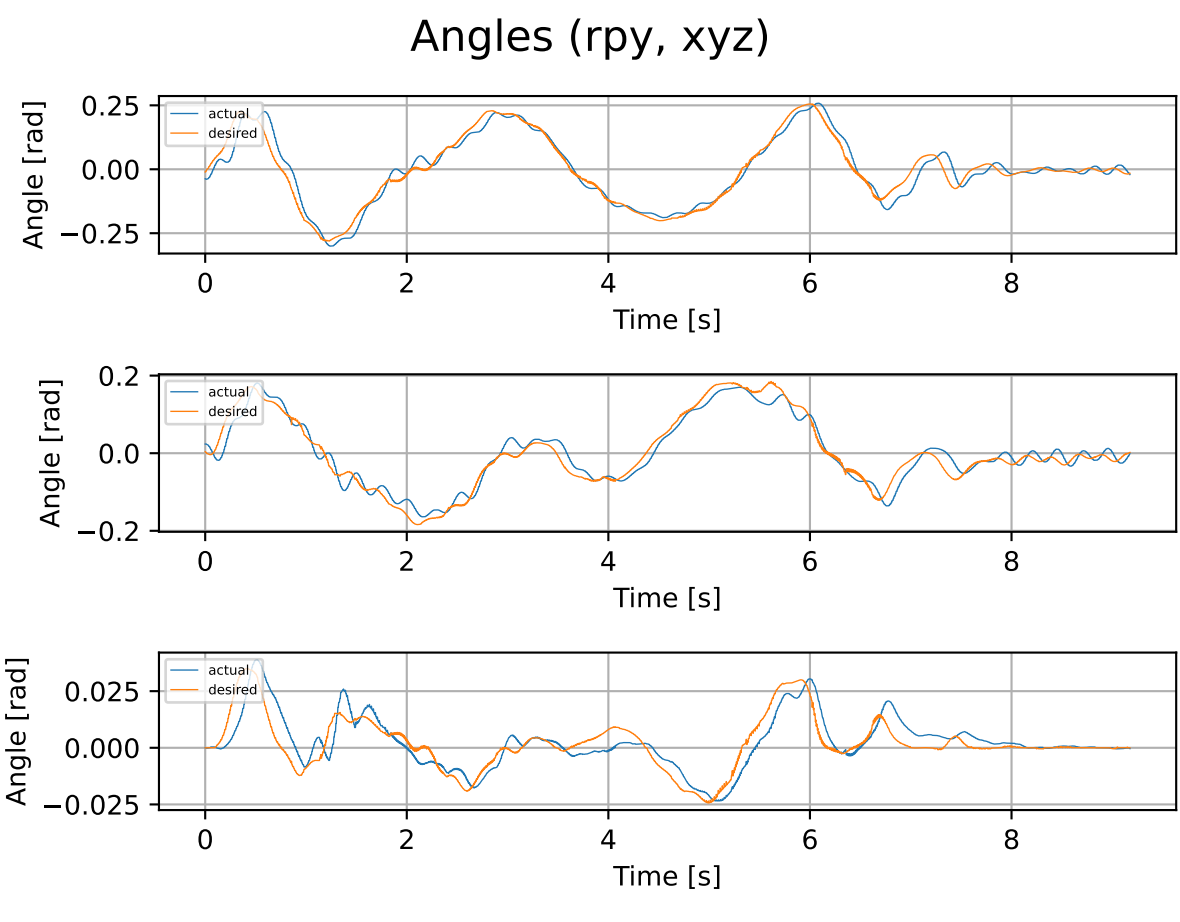
%% Lee controller tuning %%

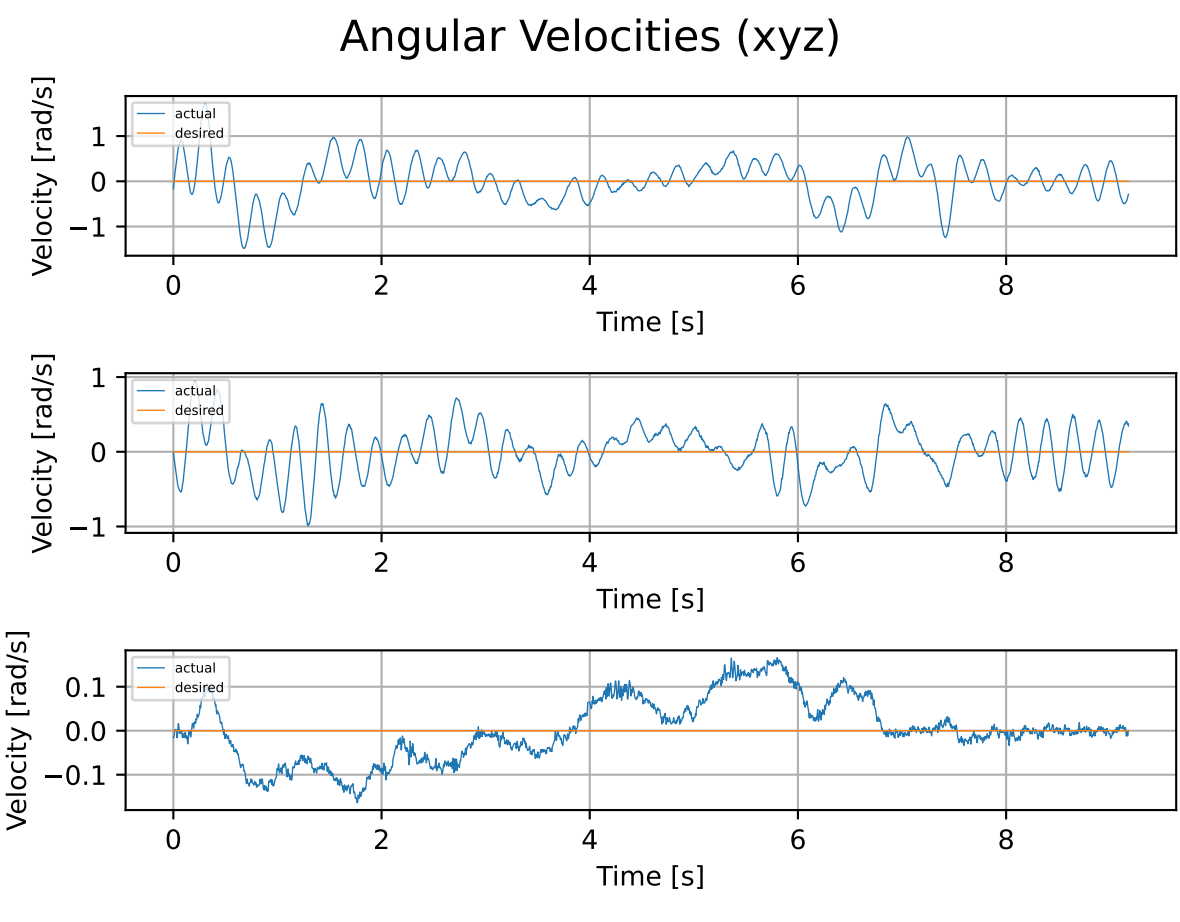
Settings:
    data_dir: logs
    data_file: log16
    start_time: None
    end_time: None

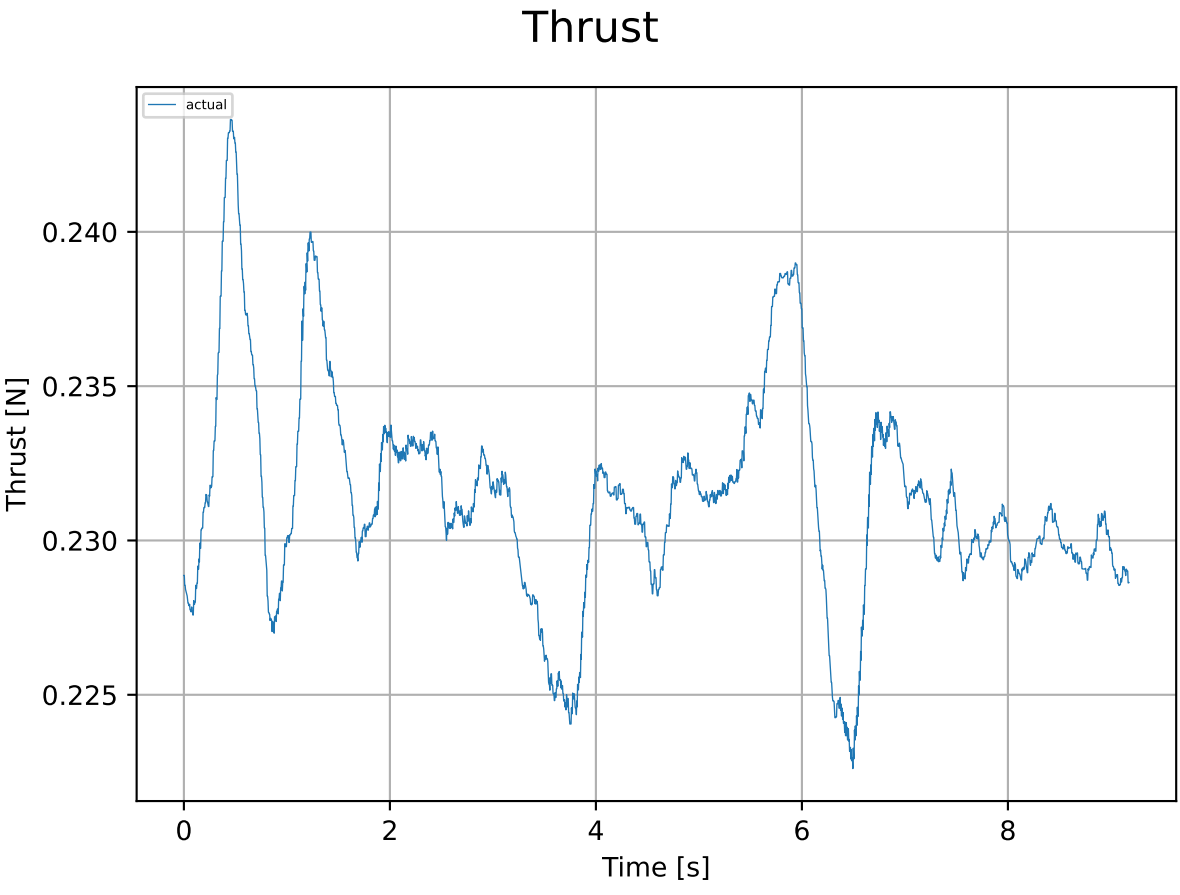
Parameters:
    Kpos_Px: 9.0
    Kpos_Py: 9.0
    Kpos_Pz: 9.0
    Kpos_Dx: 7.0
    Kpos_Dy: 7.0
    Kpos_Dz: 7.0
    Kpos_Ix: 0.0
    Kpos_Iy: 0.0
    Kpos_Iz: 0.0
    KR_x: 0.008
    KR_y: 0.008
    KR_z: 0.008
    Kw_x: 0.001
    Kw_y: 0.001
    Kw_z: 0.001
    KI_x: 0.015
    KI_y: 0.015
    KI_z: 0.02
    mass: 0.0333

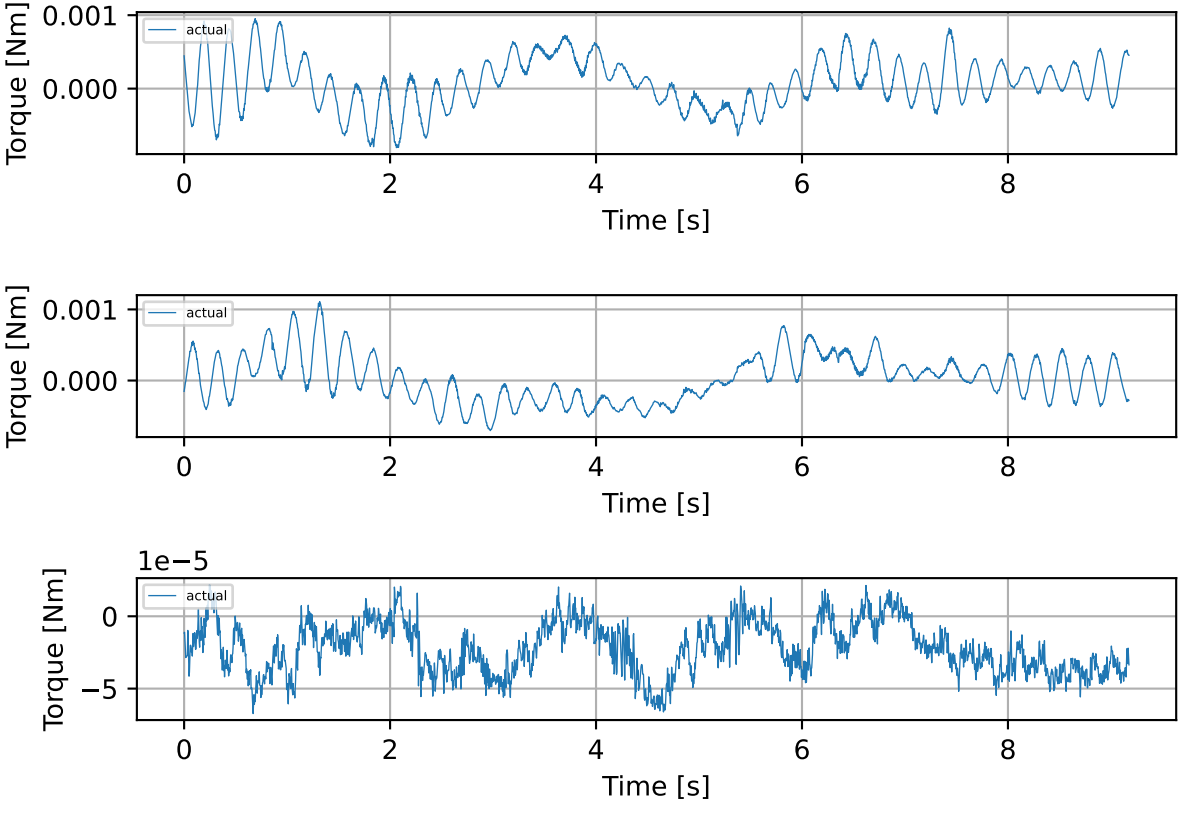

Positions (xyz)
Position [m]
actual
desired
1
0
−1
0
2
4
6
8
Time [s]
Position [m]
actual
desired
0.5
0.0
−0.5
0
2
4
6
8
Time [s]
Position [m]
actual
desired
1.4
1.2
1.0
0
2
4
6
8
Time [s]

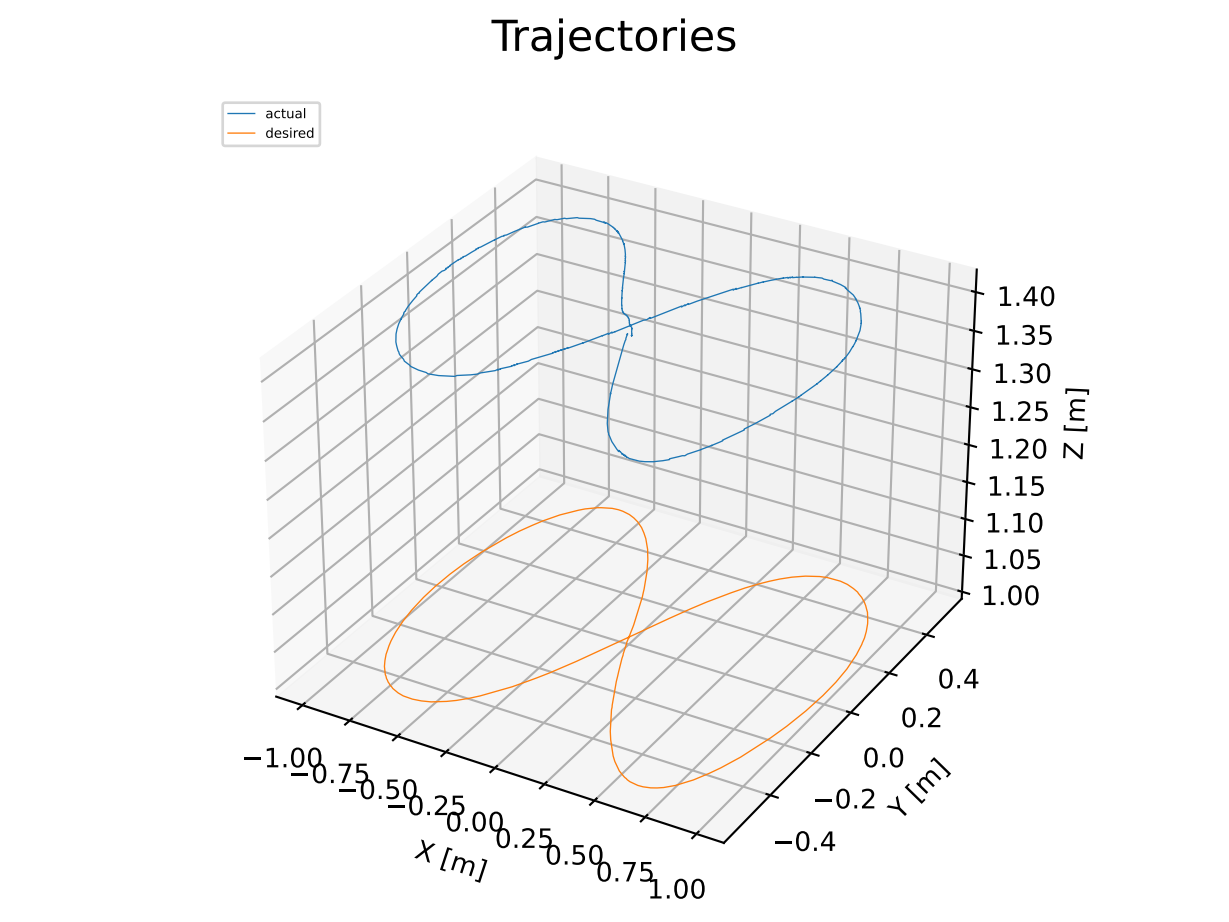

Translation Velocities (xyz)
Velocity [m/s]
actual
desired
1
0
0
2
4
6
8
Time [s]
Velocity [m/s]
actual
desired
1
0
−1
0
2
4
6
8
Time [s]
Velocity [m/s]
actual
desired
0.00
−0.02
−0.04
0
2
4
6
8
Time [s]


Angles (rpy, xyz)
Angle [rad]
0.25
0.00
−0.25
actual
desired
0
2
4
6
8
Time [s]
Angle [rad]
0.2
0.0
−0.2
actual
desired
0
2
4
6
8
Time [s]
Angle [rad]
0.025
0.000
−0.025
actual
desired
0
2
4
6
8
Time [s]


Angular Velocities (xyz)
Velocity [rad/s]
actual
desired
1
0
−1
0
2
4
6
8
Time [s]
Velocity [rad/s]
actual
desired
1
0
−1
0
2
4
6
8
Time [s]
Velocity [rad/s]
actual
desired
0.1
0.0
−0.1
0
2
4
6
8
Time [s]


Thrust
actual
Thrust [N]
0.240
0.235
0.230
0.225
0
2
4
6
8
Time [s]


Torques (xyz)
Torque [Nm]
0.001
0.000
actual
0
2
4
6
8
Time [s]
Torque [Nm]
0.001
0.000
actual
0
2
4
6
8
Time [s]
1e−5
Torque [Nm]
0
−5
actual
0
2
4
6
8
Time [s]


Trajectories
actual
desired
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
Z [m]
0.4
0.2
0.0
−0.2
−0.4
Y [m]
−1.00
−0.75
−0.50
−0.25
0.00
0.25
0.50
0.75
1.00
X [m]