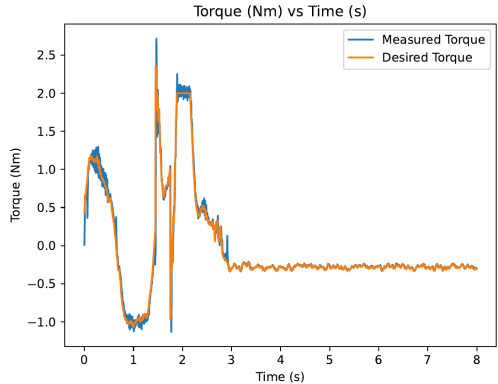# Real Results

Torque-limited Simple Pendulum

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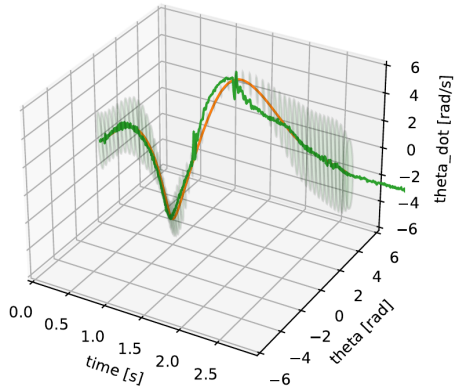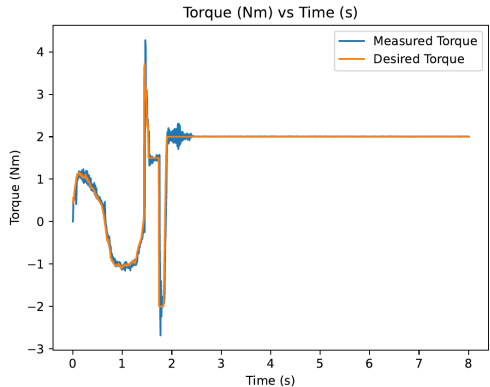Noisy Dynamics

- Initial condition for TVLQR control:
  x = [0, 0]
- Disturbance action:
  t ∈ [1.5,1.7]
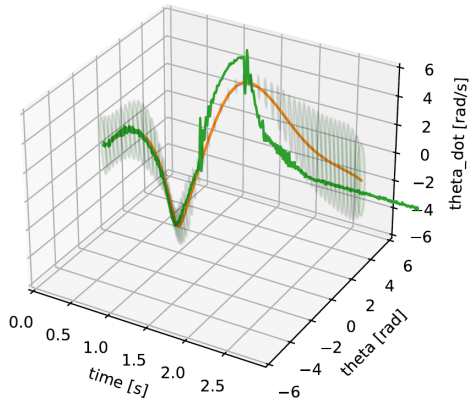- Result swing-up: Successful
- Real Video Demo: rvDist2.mp4

Torque (Nm) vs Time (s)

3d resulting Funnel

DFK

- Initial condition for TVLQR control:
  x = [0, 0]

- Disturbance action:
  t ∈ [1.5,1.7]

- Result swing-up: Failure
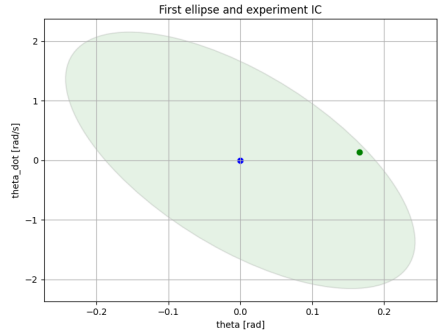 x_f = [2.1,5.5e-03]

- Real Video Demo: rvDIST35.mp4

Torque (Nm) vs Time (s)

3d resulting Funnel

Different Initial Conditions

- Initial condition for TVLQR control:
  x = [1.7e-01,3.2e-01]
- Disturbance action:
  None
- Result swing-up: Successful
- Real Video Demo: rvLQR02.mp4

First ellipse and experiment IC

3d resulting Funnel