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Homework 4 - Final Project Outline

**Dynamic Simulation**

* Plant dynamics will be derived by hand (may linearize about a stable point if it radically simplifies physics)
* Will make Simulink model to represent dynamics

**Inner Loop Control**

* More advanced control method than PID (likely FOPID)

**Outer Loop Control**

* Will use an LQR controller to direct quadrotor to a desired point

**Estimation**

* Will attempt to apply a Kalman filter to the system to filter out noise

**Visualization**

* At a minimum will provide numerical data that fully defines quadrotor’s state
* Will attempt to add some sort of visual feedback