

# Shrini's Crew

Camera platform stability for use in  
UAV remote sensing

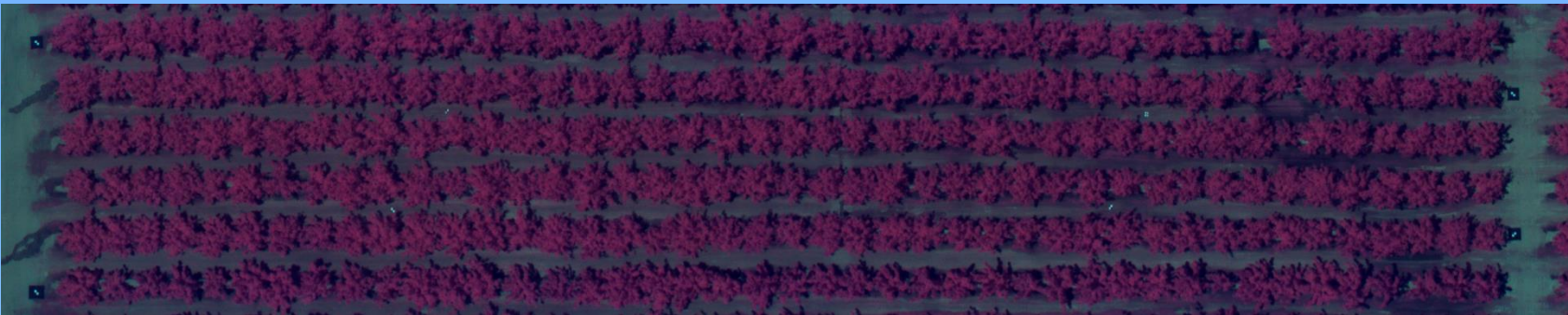
Kellen Crawford

Matt Klein

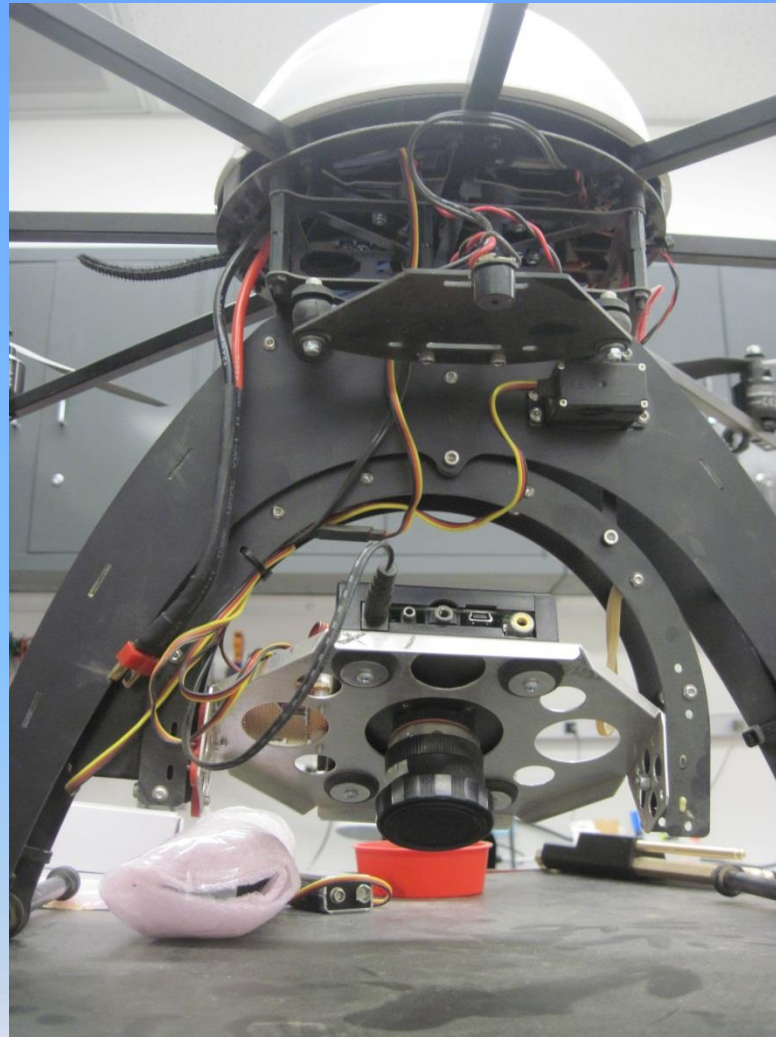
Kevin Brouwers

# UAV





# Camera Platform

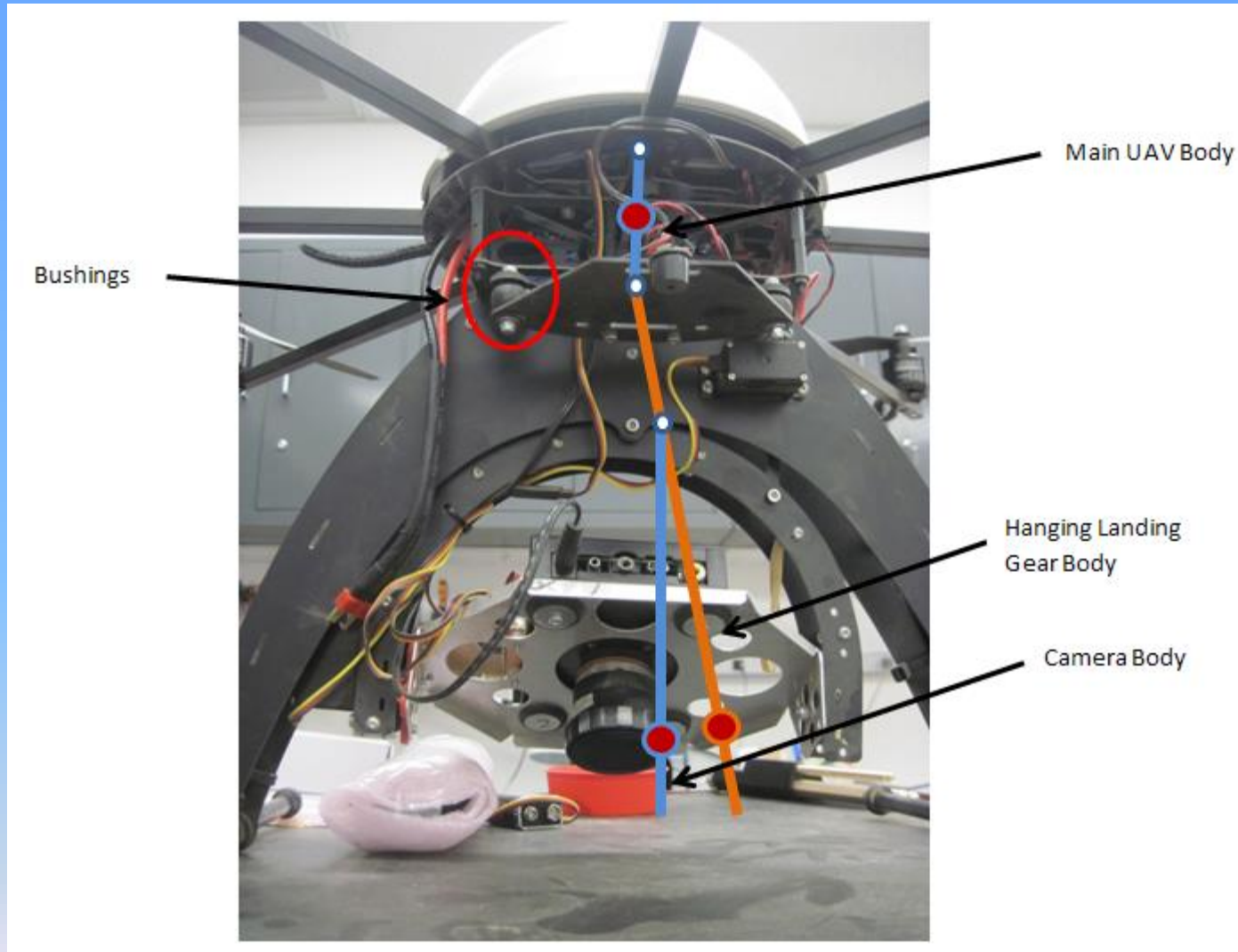




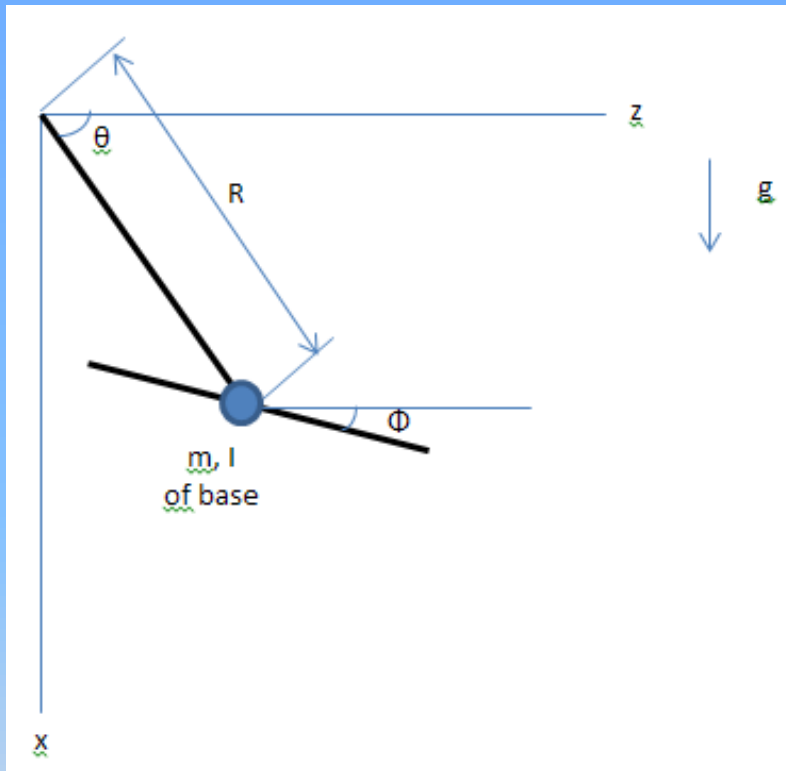
# ArduIMU - V3



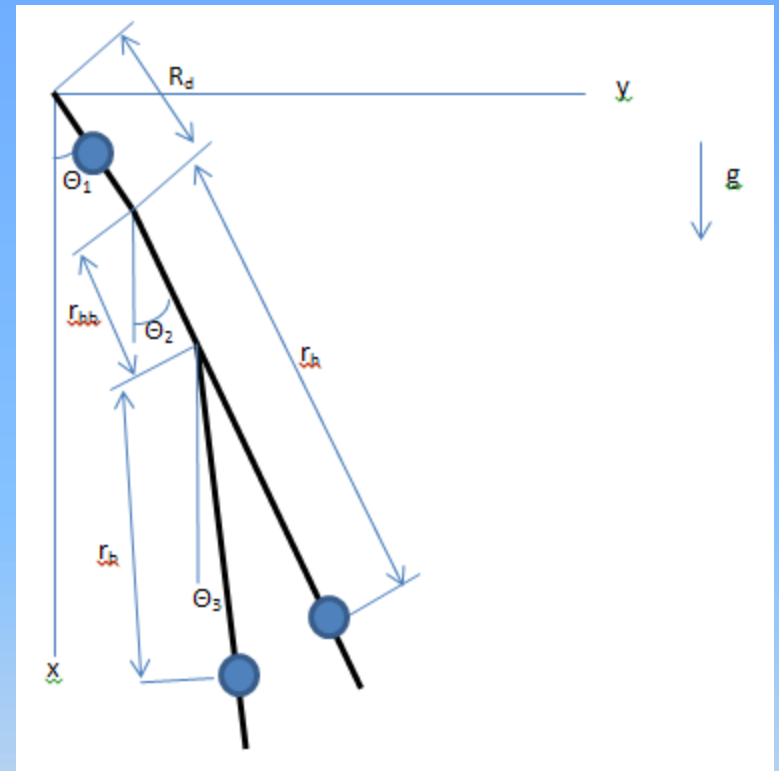
# System Modeling



# System Modeling

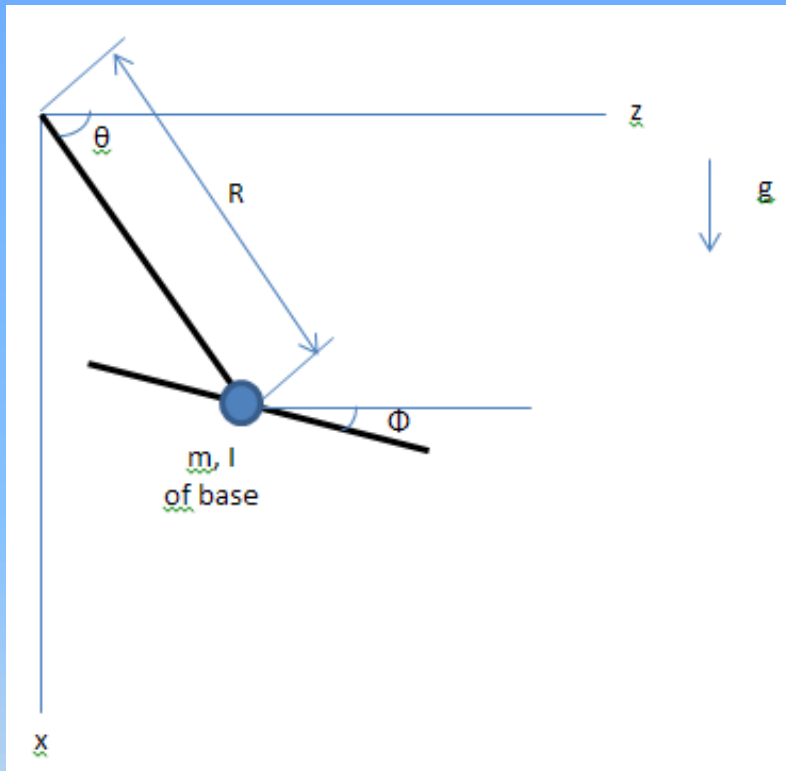


Model 1

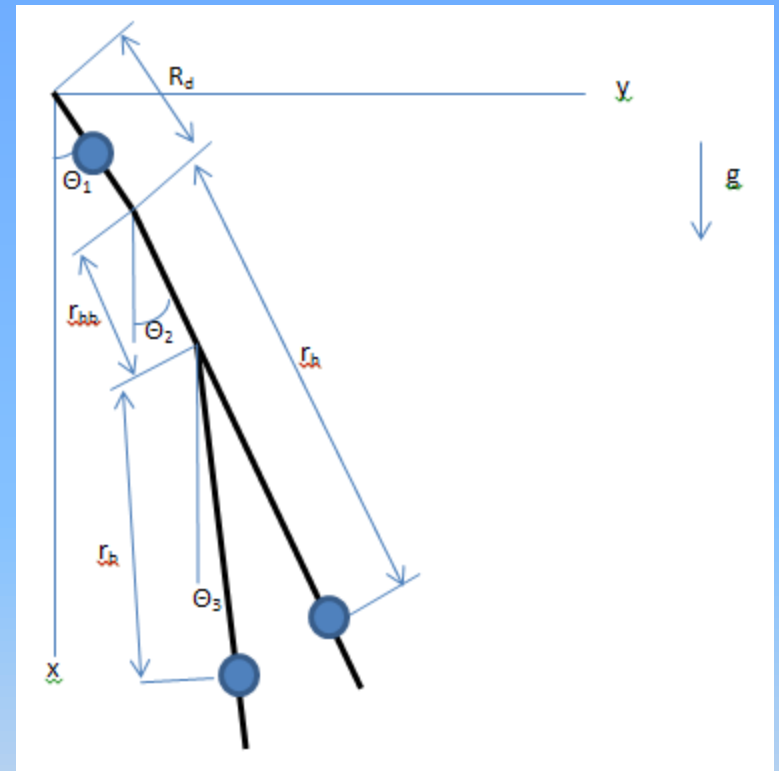


Model 2

# System Modeling



Model 1

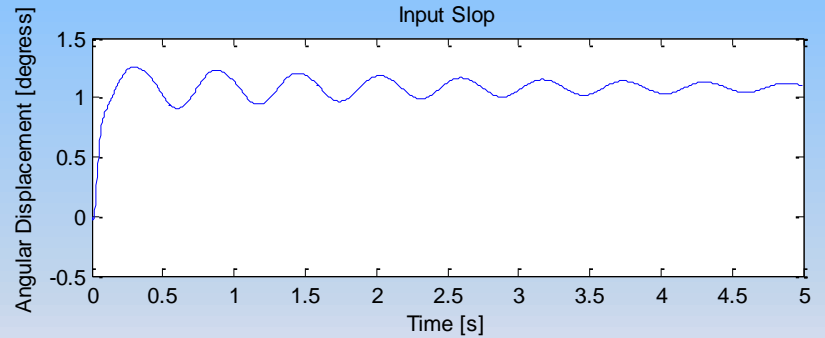
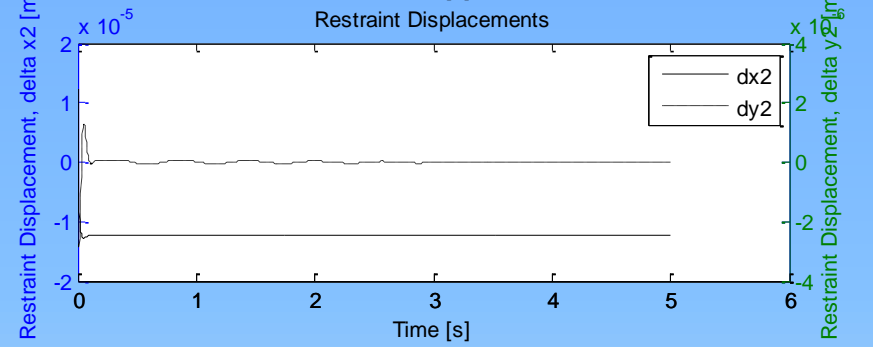
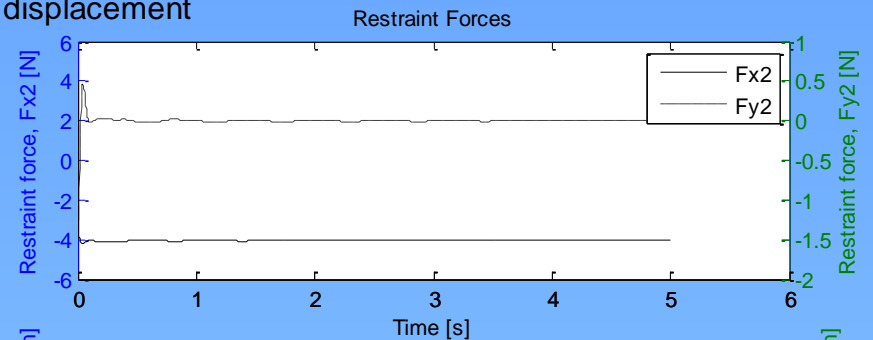
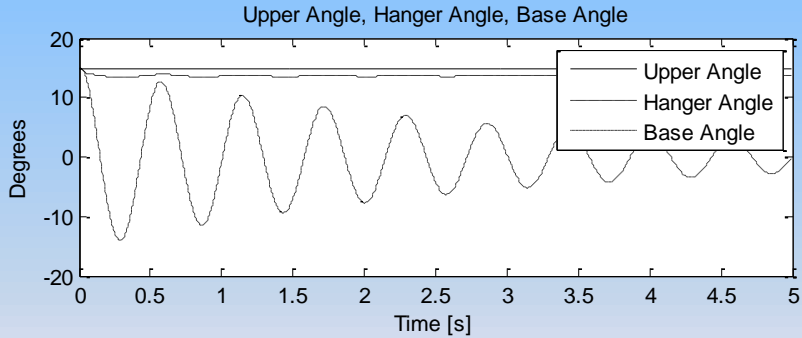
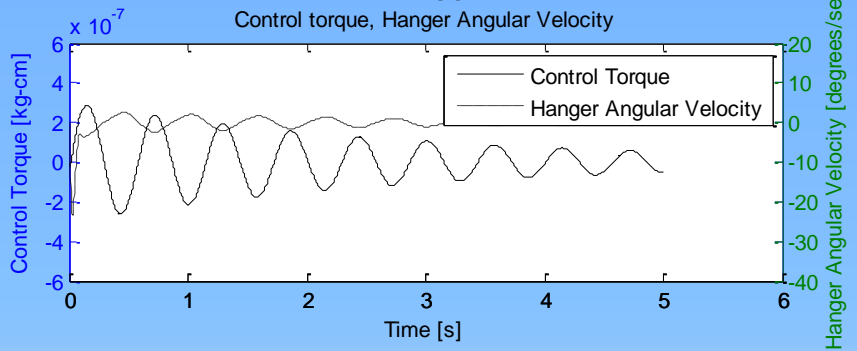
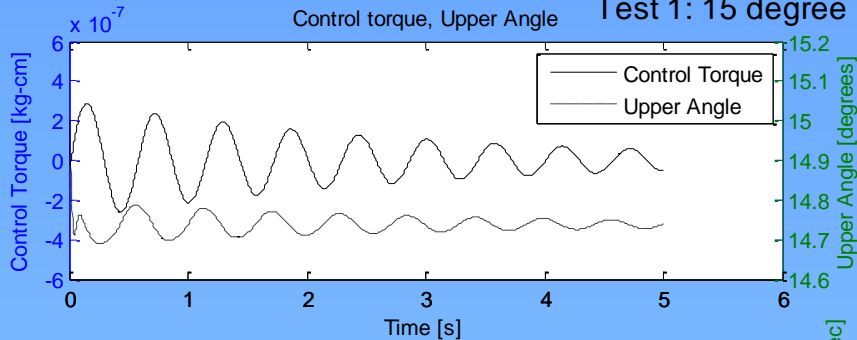


Model 2



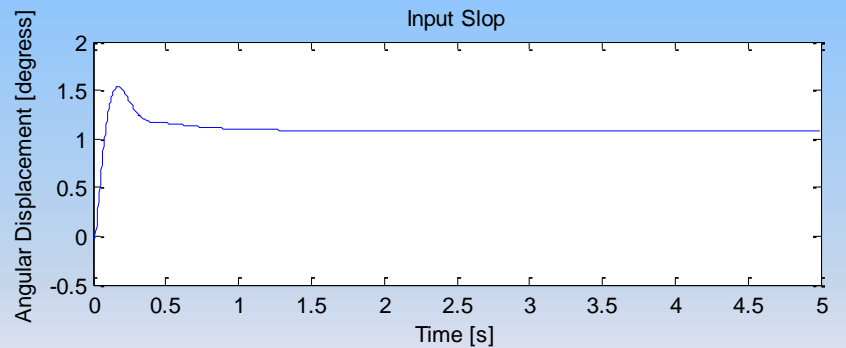
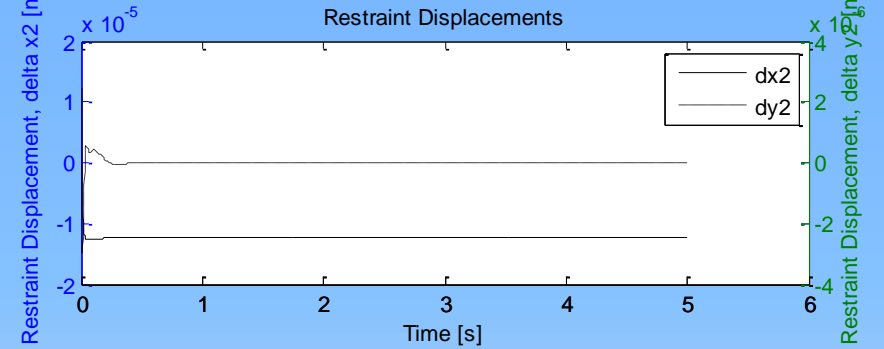
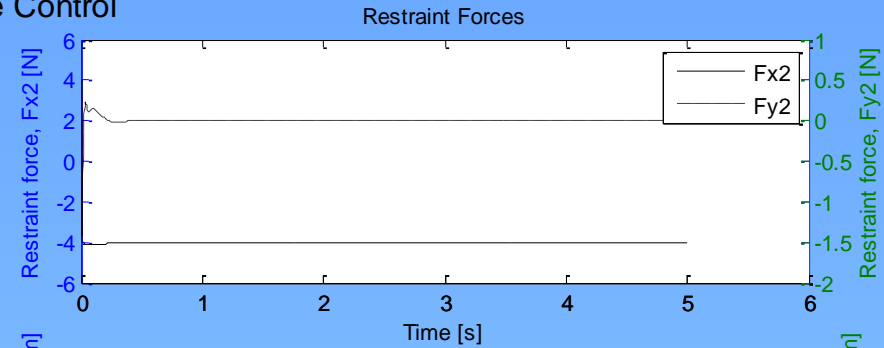
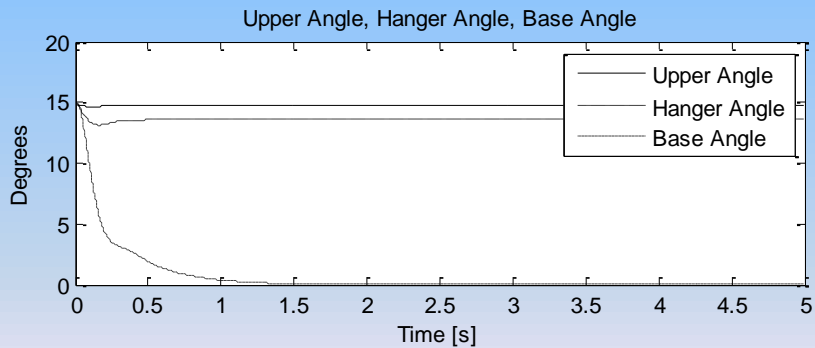
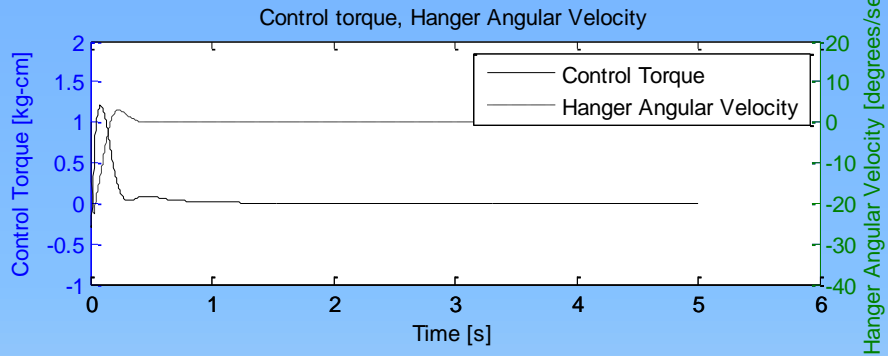
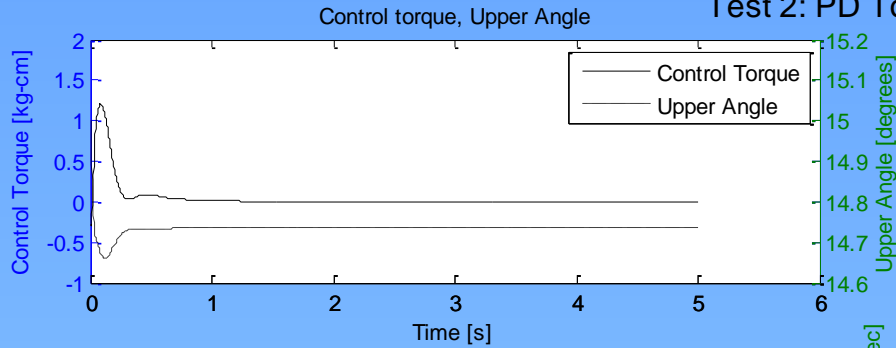
# System Modeling

Test 1: 15 degree initial displacement



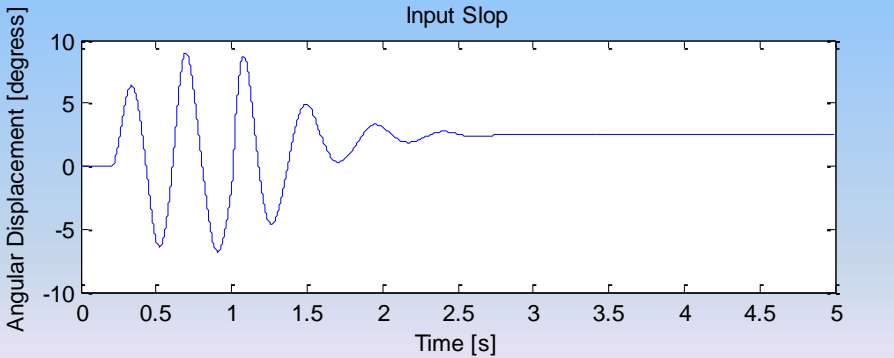
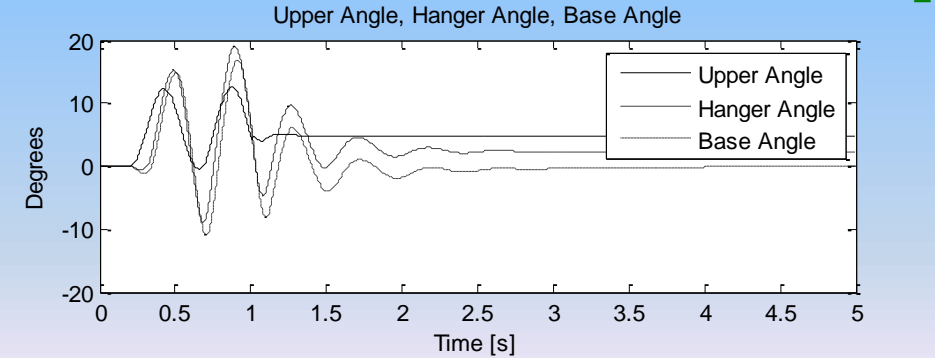
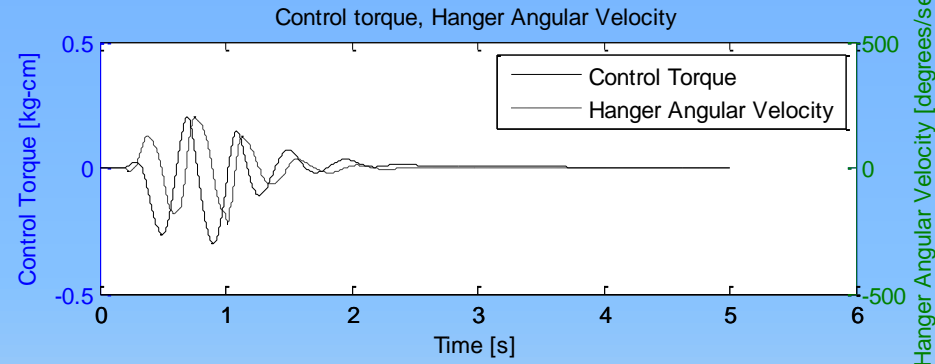
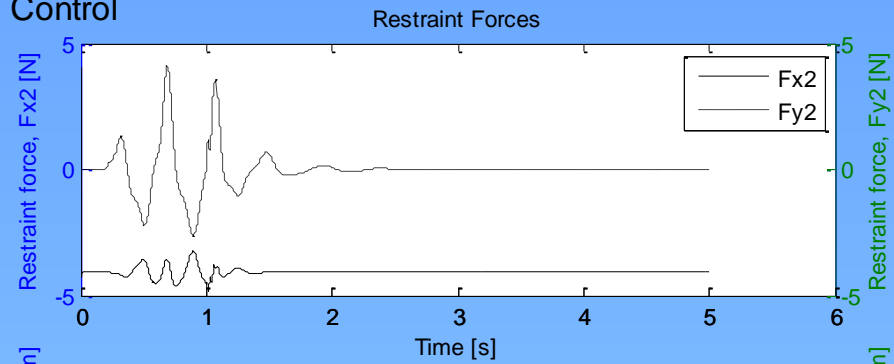
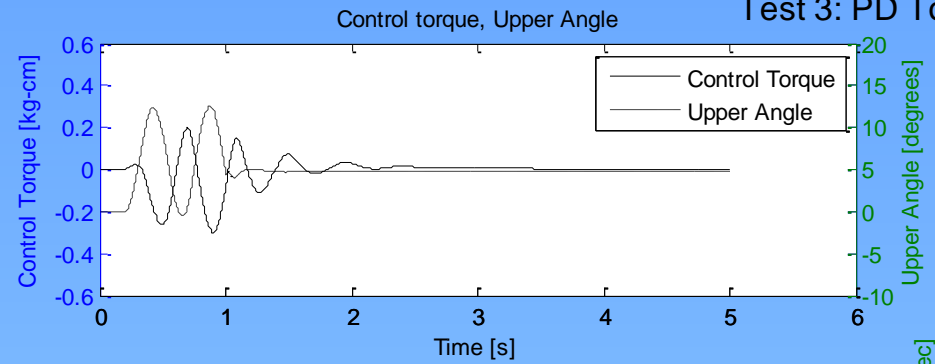
# System Modeling

## Test 2: PD Torque Control



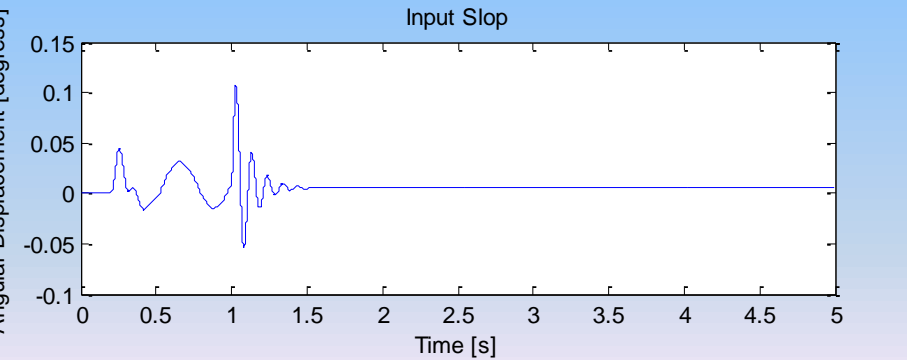
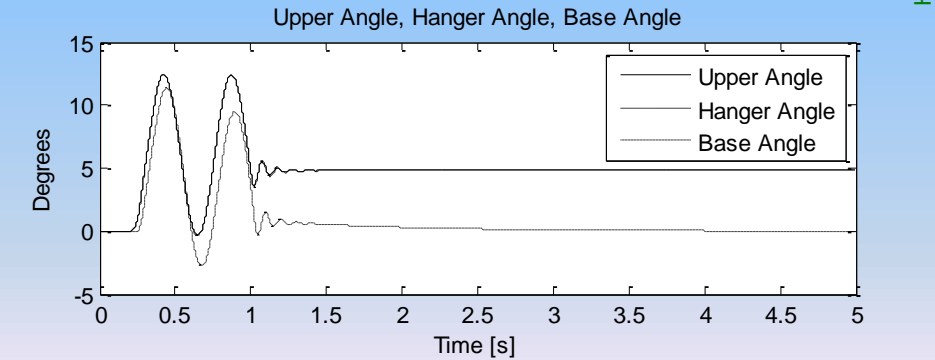
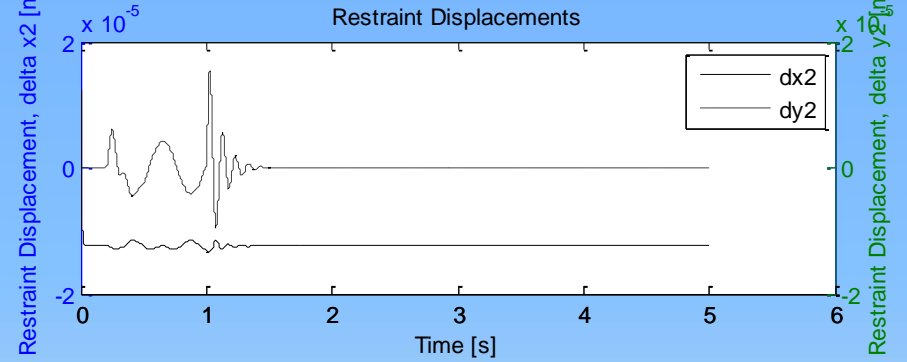
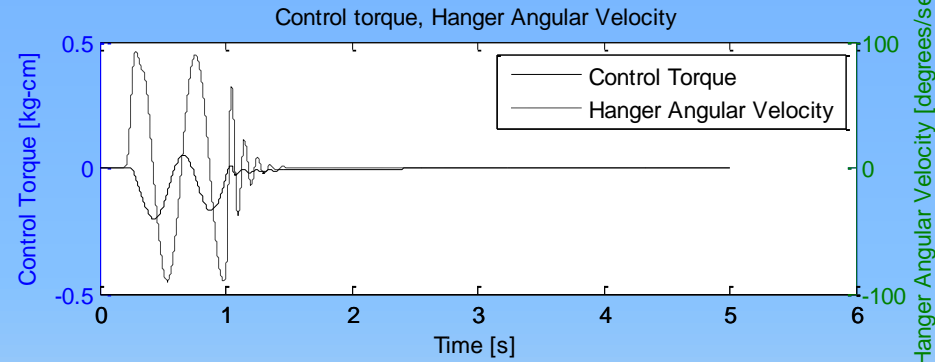
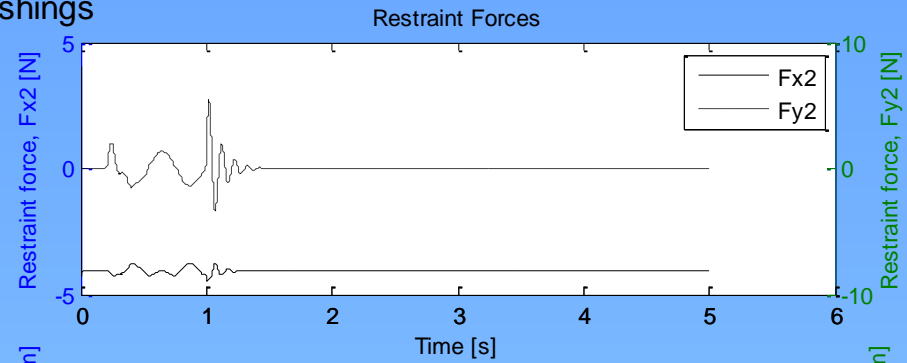
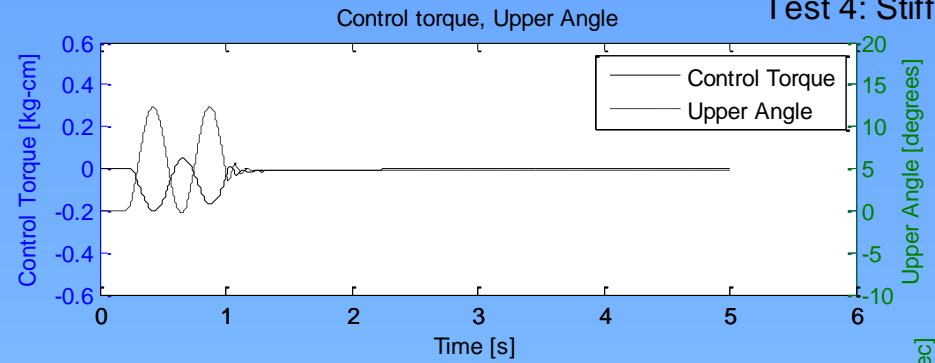
# System Modeling

## Test 3: PD Torque Control



# System Modeling

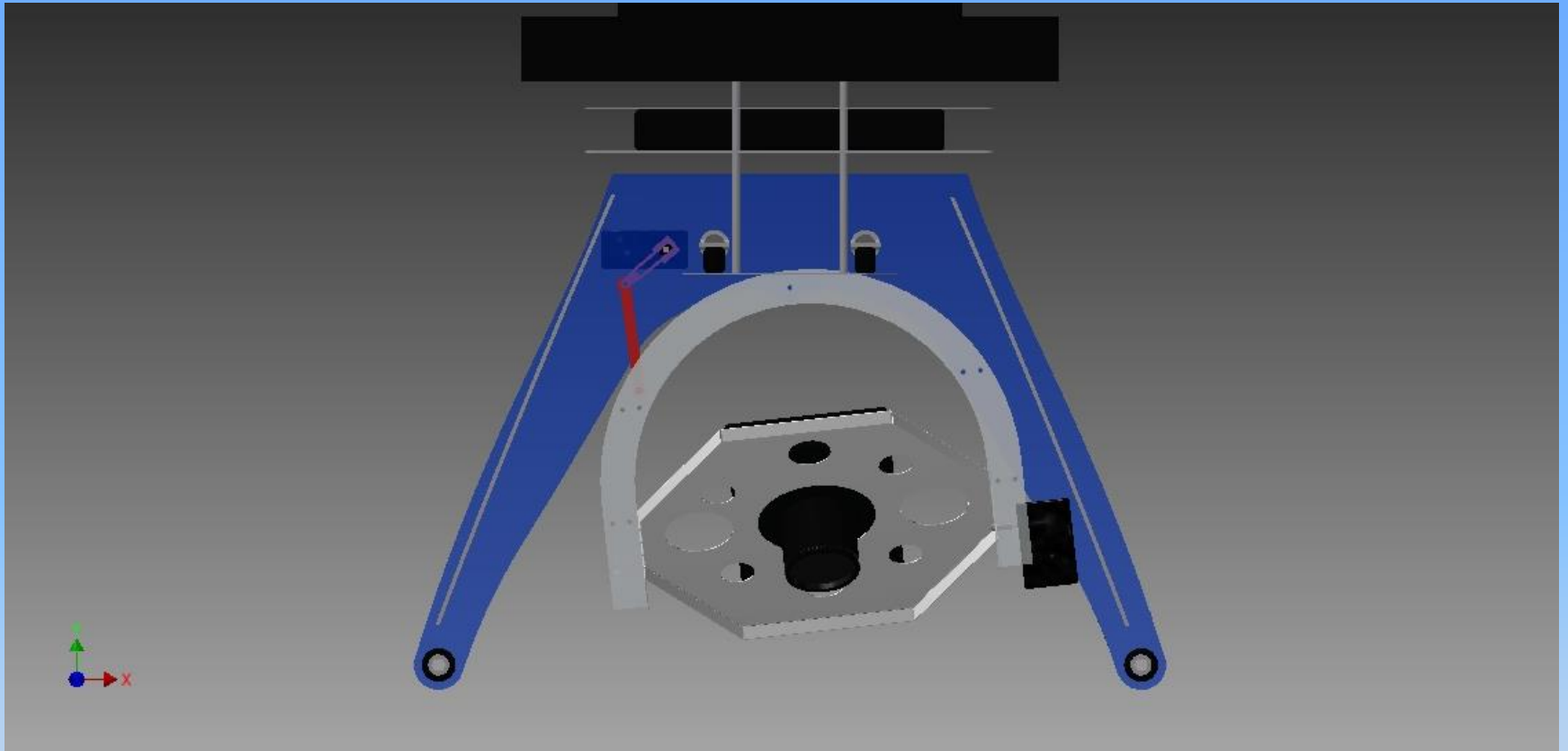
## Test 4: Stiffer bushings



# CAD - Kevin

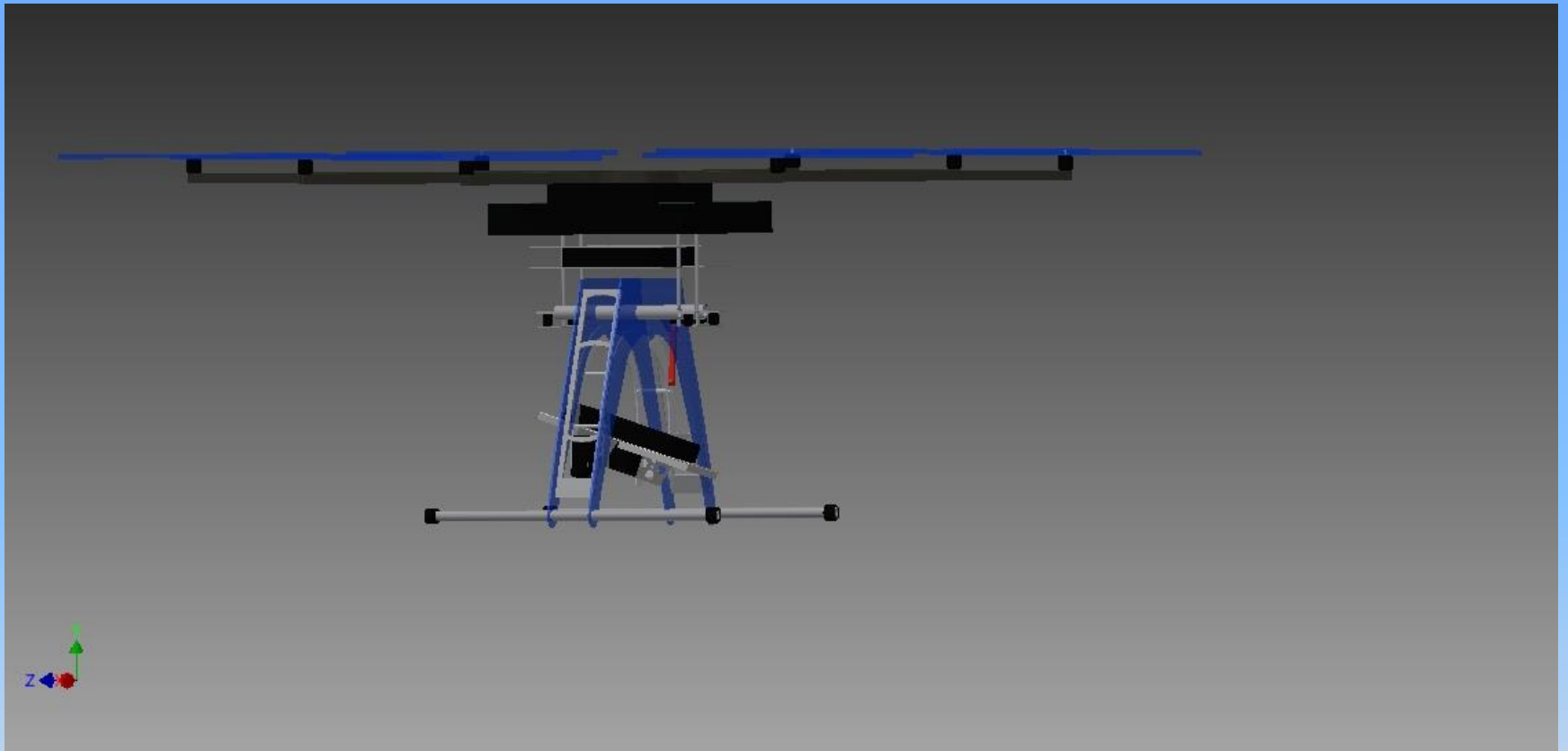


# Front View



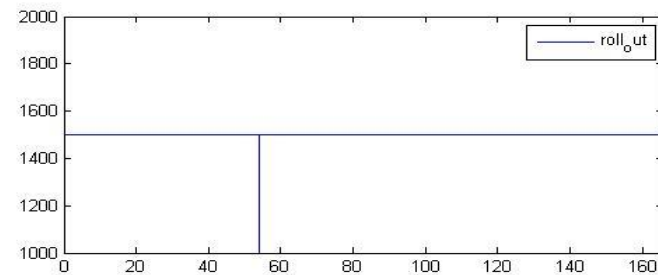
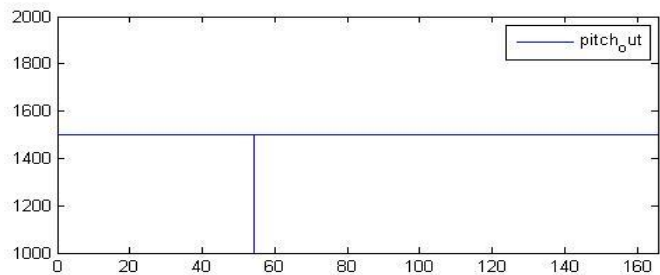
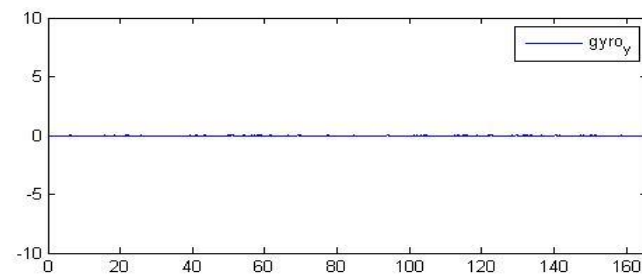
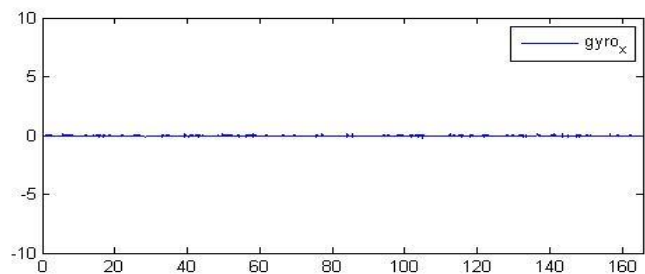
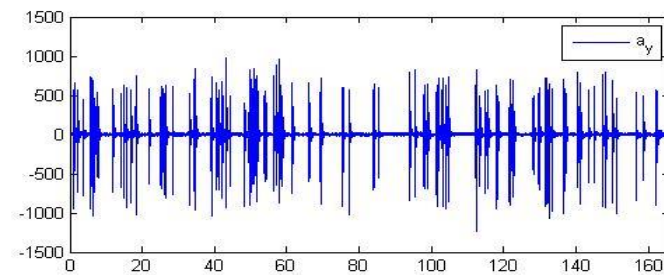
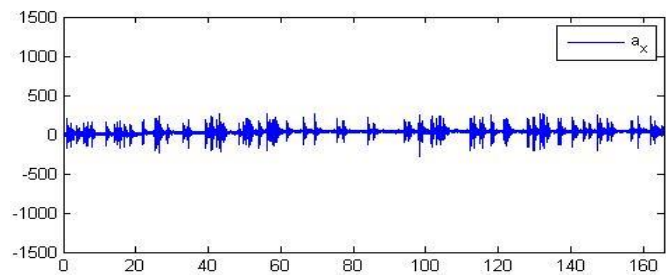


# Side View



# CAD Animation

- [pitch.wmv](#)
- [roll9.wmv](#)

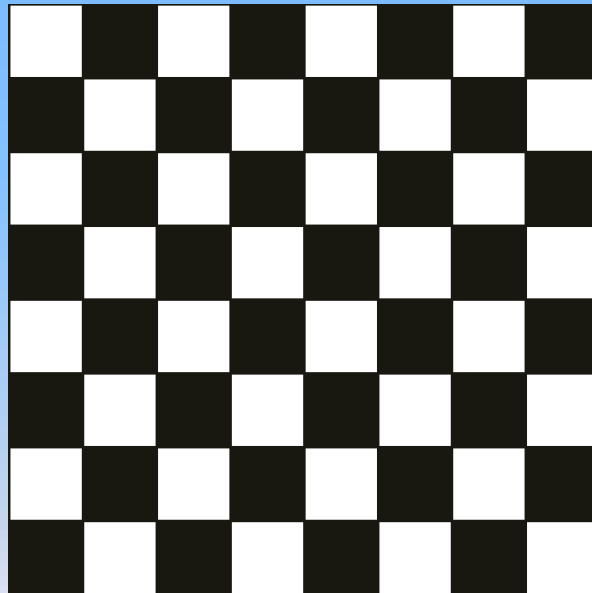


# Current Progress / Status

- Better servos
- Tightening/eliminating bushings for tighter response

# To be done...

- Play around with control code
- Apply model results to system
- Quantify progress through imaging target





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Questions?