# Talking Points

## Deliverables

2 paths to be taken, an educational tool/framework, or an actual innovation in helicopter control.

#### Education

* Non linear model (with documentation) of the helicopter so future mech-eng students can experiment the model and tune controllers
* Write some easy to use packages for FPGA’s, so mech eng students can experiment controlling helicopters using FPGAs.

#### Innovation

* Generate the non linear model of the helicopter on Simulink and in theory. Then find a control system to find the highest setpoint-tracking performance possible. First focusing on the 3 euler angles, then (if time) moving to translational motion
* Use the FPGA to deploy a complex control system onto the helicopter to find the best setpoint tracking potential possible.
* Show through simulation that the model is stable and resists outside pertubations
  + Actually fly it in the helicopter

## Planning

Gaant chart

## Research

Research document