**University of Florida**

**Department of Electrical Engineering**

**EEL 5666**

**Intelligent Machines Design Laboratory**

**Weekly Report 8**

**Summary**

Directly mounting the wings to the exterior PVC tubes with a circular metal screw clamp was the original plan going into the week. Initial testing demonstrated that the flapping motion could be achieved, but confirmed that the root of the wing and servo needed to be mounted tightly to the PVC to prevent rotation. After reading various papers that indicated an optimum initial angle of attack existed for thrust production (possibly as high as 20 degrees), the mounting procedure was changed so that the wings could be mounted securely at some desired angle of attack. Wing fabrication continued and should be finalized within 2 weeks as next week I will have substantial research requirements.

The camera has arrived and been integrated into the setup as desired. Initial sonar testing with the voltage changing circuit was unsuccessful. The main electronics through hole was drilled and everything except sonar and solar panel are installed. A very rudimentary obstacle avoidance code was also implemented.

Locating the servos to move the battery packs for pitch control is proving difficult due to space constraints. This will most likely require further fabrication and will be addressed in the upcoming week.