

# Sae Micro Aero Client and Staff Meeting

## 2 10/04/18

**Meeting time:** 3:30 PM

**Meeting Location:** Projects room, 98C building

### **CONCEPT DESIGN DISCUSSION**

1. Military Power
  - a. Not very accurate
  - b. What-if Calculations
    - i. Do we eliminate weight
  - c. Total wattage based on airflow speed and thrust
  - d. Spreadsheet trade offs
    - i. 1 motor vs 2 motors
  - e. Not very controllable with fixed wings
2. Payload
  - a. PVC
  - b. Attaching payload to increase stability
  - c. Control systems are not changed when adding payload
  - d. Harder to pitch backwards with payload added
3. Center of Gravity
  - a. Placement of landing gear with respect to C.G
  - b. Falls backwards after landing instead of forward
4. Materials
  - a. Minimum strength level
  - b. Can bend inwards but not excessively
    - i. Does not exceed yield strength
  - c. Anything that falls off results in immediate disqualifications
  - d. Compare fishing rod material to other materials that may be made
  - e. Can not use fiber-reinforced materials
  - f. Manufacturing
    - i. Wire cut blocks of foam into shapes
    - ii. Casting foam

### **RECAP**

1. Payload location adds structure improvements
2. 2 motors vs 1 and eliminating tail servo
3. Landing gear through of being in unison with design
4. Check registration for Airtel
  - a. See if cancellation fee

5. Talk to regular team about controllers
6. Need to program aircraft into Real Flight
7. Take the time we think it will take to assemble and double it
8. If we have not flown by Spring break, there will be no spring break
  - a. Look at hard deadlines
9. Budget finalized by end of semester
10. Battery, controller, receiver, collection of propellers, matching propellers, motors
  - a. Keep looking ahead for a budget