Staff Meeting

Topic: Individual Analysis Reports

Tuesday, October 13, 2018- 6:30 pm - 7:00 pm

Location: Room 314

Minutes recorded by: Braden Weiler

Meeting called by: James Seganti

Attendees: Damian Lumm, Angel Montiel, Caleb Hatcher, James Seganti, Braden Weiler

Executive Summary:

The purpose of this staff meeting was to go over the ideas that each of us had for our individual analysis reports. To begin our meeting with Dr. Oman and Amy, each member of our team proposed the idea that they thought we be most beneficial to the project. Caleb proposed the idea of doing the airfoil selection and the amount of lift generated by the wing since he already had code ready for the airfoil selection and lift is important to know if we can takeoff. Damian discussed doing a propeller selection and calculating the amount of thrust that could be generated by the selected propeller. This calculation will be helpful to determine how much thrust will be needed for a plane with an 11 foot wingspan and a weight of around 40 pounds. Angel proposed his idea of locating the center of gravity of the fuselage since Dr. Shafer told our team that finding the center of gravity is essential to designing an aircraft. James discussed his idea of finding the amount of drag over the entire aircraft by using a CAD model to do computational fluid dynamics. Finally, Braden proposed his idea of doing a motor selection by analyzing three different motors and calculating the power output expected from each one. Once all of our ideas were proposed, Dr. Oman and Amy went over any concerns that they had, but for the most part they felt that our calculations sounded reasonable for our aircraft design.

Table 1. Record of meeting.

6:30 pm to 7:00 pm	**Introductions** ● Each member of our team proposed our ideas for the individual analysis by explaining what calculations would benefit the team the most ● The individual analysis that each of us proposed included: ○ Caleb- airfoil selection and the amount of lift from the wings ○ Damian- amount of thrust that we could expect from the propeller ○ Angel- locate the center of gravity of the fuselage both loaded and unloaded ○ James- amount of drag across the aircraft by doing computational fluid dynamics

	○ Braden- motor selection by analyzing three different motors and calculating the expected power output ● Angel proposed that he could talk with Dr. Shafer to get ideas of how he could calculate the location of the center of gravity
	Comments from Amy or Dr. Oman ● Dr. Oman mentioned that we should ensure that our calculations are done in english units since the competition will most likely want them done in that way ● Amy mentioned that James should talk with a professor about doing computational fluid dynamics to ensure that he used it properly