

Staff/Team Meeting Minutes

Date: Monday October 22, 2017 7:00-7:30pm

Location: NAU DUB Room 011

Lead Person: Dr. Trevas

Minutes Recorder: Hannah Rentschler

In Attendance: Dr. Trevas, Azalea Grant, Ethan Michel, Brandon Begay, Robert Libby, and Hannah Rentschler.

Executive Summary: Discussed the results of the individual analysis and outlined tasks to be completed by next week.

Robert asked about the process of overriding into the ME capstone class next semester since he is an EE. This is something he needs to ask Dr. Omen and registration about.

Robert discussed the results of his analysis which includes a long strip or multiple FSR's along the bottom of the foot, an accelerometer, a potentiometer, and a torque sensor.

Hannah discussed the material properties that are needed for the structural plates supporting the foot. Based on the results of the analysis she determined that titanium, aluminum, and composites are good material options for these plates. Metal or metal composites are probably the best choice since they are easier to machine.

Ethan and Azalea discussed the results of the spring propulsion analysis. The results were that it was not a feasible idea and that it was a good idea to change the design as Dr. Lerner had suggested.

Brandon discussed the analysis of the hinge between the foot plates. The results were that the hinge had to bear a certain amount of stress and that the most suited materials for it are steel or titanium.

Discussed tasks to be completed by the next team meeting

Robert: Determine the placement and mounting of the sensors on the exoskeleton.

Ethan: Do some motor requirement calculations and start some basic CAD files

Hannah: Work toward using Aluminum as the structural material in the foot plates

Azalea: Create a proof of concept

Brandon: Help with the proof of concept and do more work on designing the hinge.