Staff Meeting Minutes

3/1/18

Executive Summary
The main topics discussed in this meeting were the details of each team members individual analysis. Any technical questions were asked and resolved such that the team members can advance their work. Dr. Trevas explained fritzing to Mitchell and Amy expanded on the process she would take to find the vibrations in the beam and create a scale.

5:50pm

- Amy showed Jacob a different way to do meeting minutes
- Zach showed Dr. Trevas and Amy his progress with the Arduino and Accelerometer
    - He downloaded the sketch from the Arduino website
    - Talked about how were are interested in the gyroscope within the accelerometer
    - In order to get less print outs use a check with millis to check amount of time since loop began, then check at the beginning of each loop how much time difference has passed since previous time vs. current time, i.e. millis%1000
    - Zach plans to use excel or MATLAB to analyze the data collected with the accelerometer (FFT in MATLAB (Fast Fourier Transform)
    - Amy gave Zach a few equations to use for the accelerometer
    - Look into the Nyquist frequency (speed of vibration measurement)

6:00pm

- Jacob talked about how he worked on the equation for the tension in the spring
- It can only be done by testing
- He said he will derive a method to actually test and derive data from the netting in Phoenix
- Possibly use a hanger and some weight on the wire and then measure the deflection of the wires
- Possibly go to Aces in Flagstaff and pick up some wiring (talk to Scott Weber)
- Mitchell talked to Dr. Trevas about the Fritzing model and showed what it looks like up to this point
- Dr. Trevas also mentioned to look into the Stepper.h file that comes with Arduino when working on the Arduino code

Action Items

Zachary – Zachary will continue his research on accelerometer data collection

Jacob – Jacob will finish developing an experiment to test wire tension
Mitchell – Mitchell will continue working on ramp speeds and rotary encoder
Danny – Danny will rework CAD model based on new client desires