

Meeting Minutes with Jeff

11/17/2017

4:00pm Jacob talked to Jeff about his progress. Torsion of the arms and displacement were noted to be the biggest problems to approach. Jacob said he would be using a particular equation of motion to find potential K values (stiffness values) within the design. Lastly, it was mentioned that Jacob is currently attempting to break down the problem into smaller sub-problems.

4:10pm Mitchell talked to Jeff about his progress. There were no wiring diagrams that could be found online since the Schneider Electric stepper motor was found to be obsolete as of 2010. Lastly, Mitchell showed Jeff the basic skeleton code for the Arduino.

4:20pm Danny talked to Jeff about his progress. He showed Jeff the team's final proposal presentation which was presented in class. In addition, Danny showed Jeff the CAD model as well as the sketches for the final design.

Miscellaneous Notes:

- Jeff approved the team's final design
- Tubes with bearings going through the horizontal 80/20 aluminum bars on the top-back
- Put a notch on the end to allow for rotation if we change the beams to be more in the center
- As for wheels, the front two swivel-locking, the other two are swivel
- Look into laying the boom down
- Have arms lay on top of each other to reduce shipping size
- Have boom fold to opposite side that the arms fold to (also lower it with motors)
- "To get extreme" we can move the bar that stops the arms from being lowered as low as possible (if that still permits stability and lack of vibrations)
 - Use belts in the design to help with this aspect
 - With this design the boom could be folded in the same direction as the arms
- Jacob will finalize whether we are doubling the area of the 80/20 or if we would like to change it to mild steel