

Minutes

Facilitator: Dr. Beyerlein

Date: 9/19/2018

Minutes Recorder: Emily Chambers

Time: 2:30-3:00

Attendees: Emily, Nikki, Davis, Jaime, Dr. Beyerlein

Place: Dr. Beyerlein's Office

Meeting Called to Order at 2:34pm

Time:	Topic:
2:34	Review Task Order <ul style="list-style-type: none">• Approved
2:36	Budget Review <ul style="list-style-type: none">• Check the scale in the design suite - timber group has one<ul style="list-style-type: none">○ Consider orientation - vertical○ Important to get to 40lb• Good to have some buffer
2:38	Testing Apparatus <ul style="list-style-type: none">• Check the scale in the design suite - timber group has one<ul style="list-style-type: none">○ Consider orientation - vertical○ Important to get to 40lb• Way to artificially keep the 40 lb high• Getting experimental apparatus squared away is a great thing to do while working on design generation• Objective and Subjective sub-tests<ul style="list-style-type: none">○ Consider operator kind of view○ Compare time associated with insertion/removal<ul style="list-style-type: none">▪ Initial state▪ What our device can do▪ <i>Might want to come up with some metrics similar to this</i>• Add more time to the testing apparatus development<ul style="list-style-type: none">○ Want proof that we can measure insertion force by snapshot 1 (Oct. 9th)
2:40	Gantt Chart Review <ul style="list-style-type: none">• Complete up until Wiki page draft• Get feedback on ideas and decision matrix before filling it out<ul style="list-style-type: none">○ They might have different ideas for the rating system• "Working" prototype by the end of this semester• A prototype might just illustrate a specific aspect - it doesn't <i>have</i> to be comprehensive<ul style="list-style-type: none">○ Prototype can be small demos• Researching ideas<ul style="list-style-type: none">○ Identify sources

- Searching patents
- What are potential sources that have good ideas
- Inventory what solutions are out there
- As we go along, if we get into parallel features we can create sub-categories
- Project learning might be lumped together for "collapsed view"
 - Makes it easier to view quickly

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Design Requirements

- 3.1 References
 - Research
 - Things we are studying
 - What are sources we are looking at
 - Name mechanisms that get more specific
 - Inventory of where you are going to look
 - Capture pictures of some of the mechanisms we have found
 - Pro/con list of ideas we have researched
 - Include literature review?
 - Take pics
 - Make observations
- 4.1 What it should do
 - 10-15 items
 - Top 5
 - Verbal description
 - Target value
 - Insertion time/ejection time
 - Benchmark for how many times it has to effectively work (10 times suggested)
 - Imagine issues operators might have
- Space requirements
 - How much room is there?
 - SolidWorks analysis
- Some things might not be key issues - we don't need to include those/have as much information
- No bullets
- Appearance
 - Should fit within chassis behind cover plate
- Material requirements
 - Tied up in manufacturability
- No electrical
 - Unless there are some clearance requirements for components/board
 - Not purely electrical necessarily - can be how the mechanism interacts with the electronics

- Add Manufacturing requirements
 - How are you going to produce this at a low cost
- Cost
 - Map into manufacturing
- If we find something that we want to purchase to analyze/"play with" we can allot money to purchase that
 - Valuable to find
- Environmental
 - Temperature and vibration testing
 - Get more specific requirements from Sally/Jonathan
- *Build a lot of project learning into this document*
- *Alphabetize by last name*

2:57

Next week:

- Get Sally on the phone
- More robust design requirements
 - Flesh it out before the next meeting
- Wiki page

Enough to keep things in the portfolio for now

Action Items:

- **Jaime** will continue to work on the Project Deliverables document
- **Jaime** will create an agenda for the meeting on 09/21/18
- **Emily** will format and distribute meeting minutes for this meeting
- **Everyone** will continue to research ideas
- **Everyone** will continue to design ideas to discuss at the next meeting, 09/21/18

Upcoming Important Dates

- Sept 27th – Project requirements due
- Oct 4th – Logbook (w/review form) and Portfolio review
- Oct 9th – Snapshot Day #1

Meeting Adjourned at 3:00pm