

# Meeting Activity Log

15001

## Attendees:

- Adam Podolec: Electrical Engineer / Project Lead
- Megan Ehrhart: Senior Electrical Engineer
- Tyler Leichtenberger: Mechanical Engineer
- Noah Schadt: Mechanical Engineer / Team Facilitator
- Jared Green: Senior Mechanical Engineer
- Geni Giannotti: Biomedical Engineer / Treasurer

Current Meeting	Next Meeting
Location: BAD Lab	Location: MSD Area
Start Time: 12:45pm	Start Time: 11:00am
End Time: 2:00pm	End Time: 2:00pm
Meeting Date: Monday 11/10/14	Meeting Date: Tuesday 11/11/14

## Old Business Items:

- Fabric integration of upper and lower brace
- Muscle attachment to upper brace

## New Business Items:

- Customer meeting
- Guide meeting

## Items Left Outstanding:

- Will need a table of flow down from ER all the way to components (flow chart?)
- Path of the power line
- Tensioning mechanisms
- Lower tether attachment
- Upper tether attachment
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## Action items – Owners / Deadline:

- ❖ Team Tasks - All
  - Prepare test plans for MSD II (similar to test proposals)
  - Keep track of action items from the review
- ❖ Adam Podolec
  - Ping Guide about meeting
  - Email Geni about solenoid
  - Talk to JG about schematics & power options
  - Prepare agenda for DDR
  - Long term
    - Bio
- ❖ Megan Ehrhart
  - Finish Layout PCB
  - Get budget vendors to Geni
  - MSD II test
  - Electrical system build plan
  - Long term

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- ❖ Tyler Leichtenberger
  - Design attachment in CAD
  - Iterate upper attachment
  - Long term
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- ❖ Jared Green
  - PCB Sensors / Schematic (almost done)
  - Micro SD card selection (space needed)
  - Talk to Adam about power source
  - MSD II project plan
  - Update Detailed design project plan on a weekly basis
  - Long term
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- ❖ Geni Giannotti
  - Update drawings
  - Long term
  - BOM specs
  - Budget
- ❖ Noah Schadt
  - Perform and document strain test / add details to prioritized tasks
  - Prepare sensitivity model for CAIR capacity
  - Refine foot-lift model / report
  - Read Adam's email and discuss
  - Long term
  - Notes

## Meeting Notes:

- Team discussed
  - Risk List (Geni color coded and uploaded)
  - Started shared vision
    - Putting it all together
    - More documentation
    - EE
      - Layout
      - Materials
    - MechE
      - Strain integration
- Items still to complete as a team by Thursday:
  - Shared vision
  - Prioritized tasks
  - MSD II test plan

## Guidelines:

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- Pet peeve identified: **DO NOT MISPELL HIS LAST NAME**
- Do we have a plan/agenda for the upcoming review?
  - Do we have an agenda for time?
  - How much are you planning to talk/listen?
    - *We gave a fraction*
- He mentioned that we are sitting at the overlook, we can see the happy-land
- Discussed the problem identified with the CAIR capacity model
  - Identified SME's
  - Spending \$9 to improve model is not a bad idea
  - The temperature difference could really be the cause
- Integration early on?
- (For the meeting) You guys restrain us
- Concerns (integrated)
- Have you set your team up for a good MSD II?
- Dress like it's a working meeting
- The next phase should really be a mix between documentation and prototype integration (feasibility)
- Documentation is important
- Three week plan is something from industry
  - One of the many Hanzlik-isms
- The evaluation document should really focus on what you as an individual did rather than what your team did; use the word "I"
- Look up Jim Jones 1979 mass suicide <http://en.wikipedia.org/wiki/Jonestown>
- We are encouraged to drink the cool-aid of the cult of senior design - it's a culture
- Worry when no one is coming to talk to you at work
- "you will get to the finish line, but there will be days when you meet an unhappy Ed, but we always get to the finish line"
  - Today an MSD II team made an unhappy Ed
- Talked about our guide's house...
- MSD II
  - There will be project progress demo's every 3 weeks
  - Guide will need to meet with each team once per week
  - We are encouraged to meet in the 8:00 am section
  - There will be four slots available with three teams so we must plan and discuss with the other leaders.
  - We also have the option to meet later in the day since he only has two teams in the 11:00am section

Hanzlik MSD II Scheduling Plan			
Tuesday	Team	Thursday	Team
8:00-9:15		8:00-9:15	P15001
9:30-10:45		9:30-10:45	

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11:00-12:15		11:00-12:15	
12:30-1:45		12:30-1:45	

## Customer Meeting:

- The team meet with Dr. DeBartolo with a couple questions:
  - Walking up/down stairs (ME)
    - This questions was answered sufficiently
  - Budget/tank (GG, NS)
    - Reviewed CAIR capacity model error
      - The leak may be the cause for the big difference
      - It should not make a difference with a bigger tank
    - We don't need to buy a bigger tank if we prove feasibility
    - She would rather have PCB than a bigger tank
  - Brace attachment (TY, NS)
    - Not necessary to be asked
  - Pulley? (NS)
    - Not necessary to be asked
  - A strap may be a good idea for upper attachment

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Action Items					
Item #	Description	Responsible	Due Date	Close Date	Comments
A001	Consider Permanent Elastic in front	Noah & Tyler	11/11		By DDR
A002	Refine foot-lift model with angles	Noah	11/11		By DDR
A003	Consider not using a quick connect	Noah & Tyler	-		Gate Review
A004	BOM: add columns (vendor/shipping)	Geni	11/11		By DDR (long term)
A005	Look into downsizing electrical side	Megan	11/11		By DDR (long term)
A006	Add music to videos	Noah	-		(optional :)
A007	Color correlation on the M-opt plot	Noah	11/11		Make EGDE clearer
A008	Engineering metric for foot attachment	Geni	11/11		Need to quantify things
A009	Ask Dr. C about compression sleeves	Geni & Jared	11/11		Nazareth clinic
A010	Tweak/update sketched	Geni	11/11		GAD models
A011	Color code the risk table with changes	Tyler	11/11		Expect likelihood changes
A012	Test strain of fishing line	Noah	11/11		Hang weights on the line
A013	Increase severity of fishing line risk	Tyler	11/11		See other strain risk
A014	Move pressure alert priority down	Megan	11/11		On prioritized task list

Issues					
Item #	Description	Responsible	Open Date	Close Date	Comments
I001	The AFO could be slippery with socks	Geni	10/23		Relates to A009

Decisions				
Item #	Description	Contributing Individuals	Decision Date	Comments
D001	Testing comfort with different users	Geni - Tyler	10/23	This is an ongoing resolution
D002	Bring Upper-Lower attachment prototype	Geni - Tyler	10/23	Decided as goal for DDR

## **Week 9: Rubric**

### **Deliverables (quantity & quality)**

Phase-specific deliverables:

- Design output (see examples)
- Risk assessment, mitigation plans & triggers
- Test plan (updated)
- Preliminary Detailed Design Review (80%)

Example design output:

- ME: Drawing package (incl. part and assembly drawings, fasteners, and manufacturing processes identified), mechanical simulations, LabView algorithms
- EE / CE: final schematics and parts list, detailed SPICE, Matlab simulations, development tools. For software: UML/use cases, algorithms, state diagrams, AD/DA mapping for controllers, etc.
- ISE: factory layout, process flow diagrams, workflow maps, supply chain maps, ergonomic drawings, lean implementation plan, inventory management plan.
- BOM complete: vendor identified for long lead-time parts, make-buy (or design-buy) decisions clarified, review against budget
- Simulation models

### **Process**

- "- Use of phase-specific tools => outcomes: breadth of tools used, execution, analysis, iteration
- Customer is appropriately engaged
- Requirements flow-down: customer => system => subsystems => components => tests
- Requirements traceability: tests => components => subsystems => system => customer
- Revisit analyses
- Problem solving & risk assessment
- Project planning and tracking
- Use of feedback
- Team functioning
- Documentation
- Execution of review"

### **Contribution to Team**

Quantity & quality of results, adherence to team norms and values, peer reviews, professional behavior, effective communication, use of feedback, project planning and tracking, logbook and other documentation