

# Meeting Activity Agenda

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 11/3/14	Meeting Date: Tuesday 11/4/14

## Meeting Agenda:

1. Team Dynamics Discussion
  - a. Discuss Guide document submissions
  - b. Past week +  $\Delta$
  - c. Any new scheduling conflicts or concerns?
  - d. Check if any pet peeves or conflicts arose
  - e. Does any member believe they are overworked or underworked?
  - f. Does any team member need additional help with anything?
  - g. Open the floor to anyone for general comments/concerns
2. Planning/Tracking discussion
  - a. Where are we at vs. where do we need to be
3. Review individual tasks and confirm appropriate task distribution
4. Skittles?

## Old Business Items:

-

## New Business Items:

-

## Items Left Outstanding:

- Will need a table of flow down from ER all the way to components (flow chart?)
- Ask Guide about what is expected for an assembly drawing
- Talk to guide about component housing

## Action items – Owners / Deadline:

- ❖ Team Tasks - All
  - Keep track of action items from the review
- ❖ Adam Podolec
  - Prepare MSD II plan template for team to populate
  - Add video for dorsiflexion
  - Schedule meeting with Guide
  - Email Geni about solenoid
  - Looking into power options

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- Purchasing Solenoid hardware
- Long term
- Bio
- ❖ Megan Ehrhart
  - Finish Layout PCB/SD distance sensing function
  - Test with Adam
  - Talk with Jared
  - Power ratings
  - Budget feasibility
  - MSD II (not sure what this means)
  - Long term
  -
- ❖ Tyler Leichtenberger
  - Design attachment
  - Continue Muscle optimization
  - Iterate upper attachment
  - Help Geni with test
  - Increase severity of fishing line risk
  - Long term
  - Color code risk table changes
- ❖ Jared Green
  - PCB Sensors / Schematic (almost done)
  - SD card selection (micro SD)
  - Power source (assist Megan)
  - MSD II project plan
  - Update Detailed design project plan on a weekly basis
  - Distance sensing – (Ideal position)
  - Long term
  -
- ❖ Geni Giannotti
  - Update drawings (11/11)
  - Complete lower attachment test
  - Write test report
  - Long term
  - Purchasing
  - BOM
  - Budget
- ❖ Noah Schadt
  - Test plan for strain test / add details to prioritized tasks
  - Continue Muscle optimization
  - Consider Permanent Elastic in front
  - Long term
  - Refine foot-lift model / report

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- Read Adam's email and discuss
- Type questions for Dr.D
- Notes
- Type report about # of steps based on research

## Meeting Notes:

- Scheduling:
  - Geni may be busy Mon/Tue next week
  - Jared feels underworked
  - Noah is busy this week until Thursday
- EE's seem to be in very good shape
  - They found that the muscle need to be off/on for 60%/40% of the time respectively
- Decided to meet with Guide the Tuesday before the review 11/11
- Team held a discussion about the budget
- NS to work with JG about 3 week plan

Week 10 Performance	
+ (sustain)	Δ (opportunities)
Good start on muscle optimization	Documentation on EDGE
Brainstorming session	Adam to renew weekend tasks emails
PCB schematic draft	
Keep calling the sketches GAD models	

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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