

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: 12:30pm	Start Time: 11:00am
End Time: 2:00pm	End Time: 2:00pm
Meeting Date: Monday 10/27/14	Meeting Date: Tuesday 10/28/14

Meeting Agenda:

1. Team Dynamics Discussion
 - a. Discuss Guide document submissions
 - b. Peer review / presentation + Δ
 - 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 help with anything?
 - g. Open the floor to anyone for general comments/concerns
2. Review action items from design review
3. Go over phase 4 plan:
 - a. DDR Rubric
 - b. Shared vision
 - c. Prioritized tasks (set deadline goals)
 - d. Week 15 plan (assign owners / deadline goals)
4. Stage 2 test plans
 - a. Plan a MechE brainstorming session during required EE session (attachment/muscles)
5. Review individual tasks; is the work and role distribution manageable?
6. Status of Nazareth visit
7. Homemade Banana Muffins

Old Business Items:

-

New Business Items:

- Action items
- Stage 2 test plans
- Nazareth Visit

Items Left Outstanding:

-

Action items – Owners / Deadline:

- ❖ Team Tasks - All

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- Brainstorm and test plan for MSD II
- Submit individual phase documents to guide with proper labeling
- Keep track of action items from the review
- ❖ Adam Podolec
 - Calling the solenoid company
 - Looking into power options
 - Purchasing Solenoid hardware
 - Long term
 - Bio
- ❖ Megan Ehrhart
 - Identify stairs
 - New schematic
 - Layout PCB/SD distance sensing function
 - Long term
 - LED
 - High limit test (distance sensing)
 - Order parts
 - Make EDGE magnificent
- ❖ Tyler Leichtenberger
 - Design attachment
 - Muscle optimization
 - Increase severity of fishing line risk
 - Long term
 - Color code risk table changes
 - In Air flow test look at flow of air muscle
- ❖ Jared Green
 - PCB Sensors
 - SD card selection
 - Power source
 - Schematic for the PCB
 - MSD II project plan
 - Update Detailed design project plan on a weekly basis
 - Distance sensing
 - Prepare for Nazareth
 - Long term
 -
- ❖ Geni Giannotti
 - Update drawings
 - Update BOM
 - Update Budget
 - Turn in receipts
 - Draft test plan
 - Prepare for Nazareth email

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Long term

○

❖ Noah Schadt

- Test plan for strain test / add to prioritized tasks
- Muscle optimization
- Consider Permanent Elastic in front

Long term

- Refine foot-lift model / report
- Notes

Meeting Notes:

- Megan has a busy week 12
- Megan has been feeling overworked with documentation
 - Debug analysis
 - Presentation work
 - **Adam to step up more**
- Reports to go to pdfs, keep excel worksheets as excel
- **Will need a table of flow down from ER all the way to components (flow chart maybe)**
- Gait lifting time sequence will be important
- Team had a discussion about a software vs hardware low battery alert
 - The team plans on making the decision later on
- Solenoid test by next week
- Noah to perform strain test
- Jared to learn Eagle
- **Ask Hanzlik about what is expected for an assembly drawing**
- Megan to look into soldering equipment in CIMS
- Touched on test plan, risk list color coating
- Going over the risk list as a team was a plus
- Jared to update the project plan on a weekly basis for the detailed design phase

Phase 3 Performance	
+ (sustain)	Δ (opportunities)
Very prepared, everyone answered quickly	Time may be a concern next time
Solid	EDGE site was not in order
Return to top buttons	
Going over the risk list as a team	

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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