

# 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: MSD Area	Location: MSD Area
Start Time: 11:00am	Start Time: 11:00am
End Time: 2:00pm	End Time: 2:00pm
Meeting Date: Tuesday 10/7/14	Meeting Date: Thursday 10/9/14

## Old Business Items:

- Peer Review
- Three Week Plan
- Risk Updates
- List of Experts
- Subsystem design head start

## New Business Items:

- One pager plan
- Muscle optimization phase 1
- 

## Items Left Outstanding:

- Nazareth discussion
- 

## Action items – Owners / Deadline:

- ❖ Team Tasks
  - 
  - 
  -
- ❖ Adam Podolec
  - Long term (10/21)
  - Bio
  - In Air flow look at flow of air muscle
- ❖ Megan Ehrhart
  - Prepare draft of one pager for Hanzlik Long term (10/21)
  - Research low air alert Always and forever
  - Make EDGE AWESOME

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- ❖ Tyler Leichtenberger
  - Talk to guide about risks
  - Preliminary weight analysis? See Megan or Jared for electronic weights
  - Contact Dr.KLK about meeting w/ Noah
  - Long term (10/21)
  - In Air flow look at flow of air muscle
  - Consider Permanent Elastic in front
  - Consider not using a quick connect / revise design
- ❖ Jared Green
  - Block diagram on Visio
  - Distance sensor prototype
  - Long term (10/21)
  -
- ❖ Geni Giannotti
  - Submit excel notes to EDGE /
  - Prepare lower foot attachment plan
  - Complete report from foot-lift feasibility test
  - Add MIT document to EDGE
  - Long term (10/21)
  -
- ❖ Noah Schadt
  - Get force sensor
  - Add notes
  - Add corrosion test to long term plan (10/9)
  - Visit Performance paintball research regulators
  - Long term (10/21)
  - Refine foot-lift model with angles
  - Complete report from foot-lift feasibility test
  - Consider Permanent Elastic in front

## Meeting Notes:

- Dr.D featured a few teams, the slides are now on mycourses: Table of Contents/Systems Design/Systems Design Slides/SLDR outstanding artifacts
- Phase III is subsystem design or preliminary detailed design or high risk design
  - Adding detail for system level design review
  - Three week plan – vision – owners – priority – work with guides
- It is not a stand up review, seek input
  - When you ask subject matter experts you really want to sum up your project and problem in 1-2minuts
  - Ask targeted questions like
    - “Here’s what I did, does this seem reasonable?”
    - “How could this be better?”
- Experts:

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- Who?
  - Faculty
  - Guides
  - Customers
- What to do?
  - Respect their time
  - Accept their input
  - Report back to team guide
- You will be graded – Work with guide

## Guidelines:

*P15001: Active Ankle Foot Orthotic - Updated on October 8, 2014*

Deliverable Completion Plan					
	Week 7	Week 9	Week 12	Week 15 (End of MSDI)	What made us choose week 9 percentage?
BOM	10%	60%	80%	100%	The following items have already been chosen: 1.) pressure sensor 2.) distance sensor 3.) micro-controller
Schematics	20%	50%	80%	100%	We already have a schematic for the distance sensor
Software Code	20%	40%	60%	70%	We already have the code for the distance sensor
Build/Assy/ Debug Plan	0%	30%	60%	100%	For this, really need to focus on the safety and how we are going to handle safety issues that could go wrong.
Test Plan	10%	20%	40%	100%	This needs to done while we move forward on the testing. How are we proving functionality now and should we do that again later. We have an outline right now
Risk List	40%	60%	80%	100%	We have a really good start on this. We will find more risks as we move forward with the project
Project Plan	0%	10%	40%	100%	We do not have much of a start on this. This will be defined more as we move forward with testing.

- Developed charts
- MechEs need
  - FDBs 3D state of loading
  - State of loading assumptions
  - should look like A level homework
  - Material selection
  - Thermodynamic considerations
  - **Make assumptions and clearly make conclusions**
  - **Honor your commitments** present plan on Thursday
  - Don't make the bar too low
- Writing down logical flow charts
- Inspect our list to see if it is A or B level
- SMEs double negative
  - (-) We don't know how to do it
  - (-) We didn't do anything about it
  - (+) We talked to professor so and so
- Hanzlik spent 5hrs reviewing our individual submissions
- What are we proposing, why?

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- **Engineering “Decisions”**
- 3 cases
  - Conservative Charlie
  - Middle of the road B
  - optimistic A
- Guide will be on vacation all next week
  - He can skype with us
  - Back the following Tuesday
- Prioritized list of work to make engineering decisions
- “Why isn’t it a 6 credit course?”
  - It is the capstone
  - If you are committed to making a working prototype you will work hard
  - Worry less about the grade and more about the prototype

## Notes from Tyler and Noah’s Meeting with Dr.KLK

- Contact Chris at Performance Paintball
  - He’s the one who made the regulator
  - Ask him to lower the pressure if we need to
- CAD drawings are available for various muscle plumbing
  - Most of it can be machined in house
- Force sensor is available for testing (with student data?)
  - Uses labview may be on the BAD Lab computer
  - Dr.KLK to send us info
- Look at past senior design teams data from load cell...
- some teams P08024, P04023, P11029
- Other MechEs still on campus...