

Meeting Minutes

10/27/20

Standard Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

- Tilting Mechanisms: Piyush, Mark, Cameron
- Object stability (tabletop design): Cameron and Keegan
 - Concepts, angle dependent
- Mathematics: Joseph and Cameron
 - Difference between the old and new equations
- Wikipedia: Piyush and Keegan
- Electronics
 - **Dependent on other elements**
- Preparations for Client/Instructor meeting
- Goals and Deadlines
 - **Mark will create a decision matrix, create a top 3 choices for lifting table**
 - **Pegboard design in CAD, Friction surface**
 - **Math, final equations written in LaTeX equations**
 - **Each team member send Piyush a photo**

Meeting Minutes

10/22/20

Instructor Team Meeting

Bold items were added during the meeting.

- Design Validation Plan submission
- Update of our team missions
 - Prototype chosen
 - Tilting Mechanisms: Piyush, Mark, Cameron
 - Object stability (tabletop design): Cameron and Keegan
 - Magtable, pegboard,
 - Mathematics: Joseph and Cameron
 - **We need to know what's different between the old one and new**
 - Wikipedia: Piyush and Keegan
- Data updates (if any):
 - Looking error source
- Other items Dr. Maughan would like to address
- **Next Thursday move all these items forward**

Below is an unorganized chronological list of items discussed.

Meeting Minutes

10/20/20

Standard Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

- Upcoming due dates
 - Design Validation Plan: October 22th
 - Value Proposition: October 29th
- Items from previous meeting - **Compression**
 - Team to figure out how to adjust the angle - Creating a way to lift the table without taking up counter space, reduction of previous Capstone Team's design
 - Team to figure out how to hold the object in place
 - Example: Build tabletop with a vacuum top
 - Pegboard design (series of holes)
 - Team to finalize math model (z-calculation error)
 - Cameron will finalize math for Tension
 - Team will decide prototype: **Compression**
 - **Team Wiki, Piyush, Cameron and Keegan**
 - **Team Hold it, Cameron and Keegan**
 - **Team Lift it, Piyush, Mark, Cameron**
 - **Team Math it, Joseph and Cameron**
 - **Each member will add two items to DVP**

Meeting Minutes

10/15/20

Standard Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

- Snapshot 1 Discussion
 - Dr. Maughan's thoughts
 - Ideas learned from visitors
 - Closing thoughts
- State of our prototypes
- Upcoming due dates
 - Design Validation Plan: October 22th
 - Value Proposition: October 29th
- Any additional items Dr. Maughan would like to address.
- Comments:
 - **Team to figure out how to adjust the angle**
 - **Team to figure out how to hold the object in place**
 - **Build tabletop as a vacuum table**
 - **Cameron will finalize math for Tension**
 - **Team will decide prototype.**

Meeting Minutes

10/08/20

Instructor Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

Try the z-axis tests with only two tests

Meeting Minutes

10/06/20

Standard Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

- Reminders:
 - DUE Today: Project [Schedule](#) for both Fall & Spring (to lead instructor)
 - Joseph – Ghant chart **Due Thursday**
 - DUE Thursday: [Logbook](#) (w/review form) & [Portfolio](#) (to lead instructor)
 - Our file system is our portfolio
 - Email pdf logbook. **Due Thursday**
- Updates from the Compression tests (Joseph, Mark, Piyush)
 - Next steps?
 - **Joseph will create a topographical map for error**
 - **Piyush will run more tests**
- Updates from the Tension test (Joseph, Cameron, Keegan)
 - X and Y Accuracy
 - Z possibilities
 - 50 g accuracy
 - Next steps?
 - **50 by Thursday**
 - **Wednesday evening perform tests**
 -
- Schedule Shop Orientation with Max.
 - **1:50 pm**
- Identify tasks for each member to complete by the next meeting.

Meeting Minutes

10/01/20

Instructor - Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

Items to review with Dr. Maughan:

- DUE: Project [Schedule](#) for both Fall & Spring (to lead instructor)
 - Joseph – Ghant chart
 - Next thursday
- DUE: [Logbook](#) (w/review form) & [Portfolio](#) (to lead instructor)
 - **Our file system is our portfolio**
 - **Email pdf logbook.**
- Our status
 - COG Team Prototype picked up
 - Two measurement methods
- Any additional items Dr. Maughan would like to address.
 - **Start simple, try 2 scales**

Items for the core team:

- Updates from Compression tests (Joseph, Mark, Piyush)
 - Next step?
 - Recommendations for tension test meeting
- The date for the Tension test meeting (Joseph, Cameron, Keegan)
 - Senior design suite
- Schedule Shop Orientation with Max.
 - Waiting for a reply about Friday at 3:30
- Identify tasks for each member to complete by the next meeting.
 - **5:00 pm tension meeting**

Meeting Minutes

09/29/20

Standard Team Meeting

Bold items were added during the meeting.

Here are items for discussion at the meeting later today, 09/29/20 at 3:30 pm.

- COG Team Prototype picked up
 - **Working with our purchases first. Get measurements, then look at theirs**
- Update on purchasing
 - **Compression has arrived**
 - **Tension coming tomorrow**
- Our Prototyping strategy
 - Dates to meet up?
 - COVID Considerations
- Schedule Shop Orientation with Max.
 - Information from our last meeting:
 - Max sets up a time for safety training. (~20 minutes)
 - 3:30 Friday, Cameron will send an email.
- Identify tasks for each member to complete by the next meeting.
 - Tension team: Joseph, Cameron, Keegan
 - **Cameron will pick up device.**
 - Compression team: Mark, Piyush, Joseph (after thermal systems).
 - **Piyush will pick up device.**
- Joseph will alert Maughan of the gphant chart (Project Schedule)
- Next Thursday, log book due.

Meeting Minutes

09/24/20

Standard Team Meeting

Bold items were added during the meeting.

Below is an unorganized chronological list of items discussed.

Here are items for discussion at the meeting later today, [09/24/20] at [3:00] pm.

Items with Dr. Maughan:

- Product Requirement Documents Due today.
 - Located in our share folder
- Table has been reserved in the Design Suite.
- Review the Budget document.
 - We want to purchase:
 - 3 Tension scales
 - 3 compressions scales
 - Craft supplies (tape, glue, scissors, ect)
- Our Prototyping strategy
 - Team Compression
 - Team Tension
- Schedule Shop Orientation with Max.
 - Information from our last meeting:
 - Max sets up a time for safety training. (~20 minutes)
 - Email
- Status of picking up the previous team's prototype.
 - Sally Mei
- Any additional items Dr. Maughan would like to address.
 - Make requirements completable objectives

Items for team:

- Identify tasks for each member to complete by the next meeting.
 - Cameron
 - Joseph
 - Keegan
 - Mark
 - Piyush

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Meeting Minutes

09/22/20

Standard Team Meeting

Bold items were added during the meeting.

Here are items for discussion at the meeting later today, [09/22/20] at [2:45] pm.

- Reserving a table in the Design Suite.
 - Bill Magney – Table Check out form
 - **Piyush will do it.**
- Review the Product Requirement document.
 -
- Review the Budget document.
 - **\$40 for each scale and tape**
 - **Still waiting for real purchases**
- Discussion of Shop orientation
 - Information from our last meeting:
 - Max sets up a time for safety training. (~20 minutes)
 - 3d printer room access:
 - Laser cutter: only person needs training, needs basis. One-person contact is best.
 - Watch a video on laser cutting
 - Northwest end, wood prototype.
 - **Schedule at next meeting**
- **Meeting at capstone class time or right after**
- Status of picking up the prototype.
 - Should Cameron send the email to pick it up or wait for our tabling location so we can include an address for shipping/drop off
 - **Yes, wait on table location**
- Discuss each member's prototype ideas
 - Joseph
 - Keegan - **ATAT idea**
 - Piyush -
 - Cameron
 - Dr. Hrdlicka - All of the scales are high quality (super expensive), but he said we can use his lab anytime :D (I don't think we will need to).
 - Ideas: Marionette flipping, Reaction force method, balance CG Meter - link 2, crane tipping
 - Statics review: 3D Centroid 1, 3D Centroid 2, 3D Cg calculation, demonstration (lots of interesting ideas)
 - Maxx -

Meeting Minutes

- **3 Tension scales and 3 compressions scales for prototyping**
- Other upcoming due dates?
- Identify tasks for each member to complete by the next meeting.
 - **Keegan with purchasing**
 - **Piyush tabling**
 - **After Piyush gets tabling, Cameron will send email to Jonathen**
 - **Keegan and Cameron will do Tension test.**
 - **7 after scales arrive, to make a measurement of CG using the two methods.**
 - **Piyush and Cameron will finalize PRD**

Meeting Minutes

09/17/20

Here are items for discussion at the meeting later today, [09/17/20] at [3:00] pm.

- Review these items with Dr. Maughan
 - Discuss the client meeting (how it went, etc)
 - Budget. - yes
 - Jonathan wanted to join all weekly meetings with Dr. Maughan. - every other week.
 - Reserving a table in the Design Suite. - Bill Magney –Table Check out form
 - Review Product Requirement Documents -wait when it's finished.
 - Shop orientation, individually with a team. Max sets up time for safety training. (~20 minutes)
 - 3d printer room access:
 - Laser cutter: only person needs training, needs basis. One-person contact is best.
 - Watch a video on laser cutting
 - Northwest end, wood prototype.
 - Purchasing >\$100, do we buy it ourselves?
 - Fill out the form, digitally approved by Maughan, let him order it with university credit card, he doesn't want to spend all his time being a buyer, so send him a list once it is curated.
 - Form may be will be in the ME office, near window. Fill it out best we can.
 - Johnathan about picking up the prototype.
 - Any additional items Dr. Maughan would like to address.
- Review these items with regular team
 - Budget document.
 - Date to create 0th-prototype (demonstrate the ability to take Cg measurements asap as Jonathan recommended).
 - Upcoming due dates?
 - Set tasks for each member to complete by next Tuesday.
 - Each member come up with a method for prototype
 - Dr. Hrdlicka -

Meeting Minutes

09/16/20

Client Meeting #1

Below is an unorganized chronological list of items discussed.

- Yes, they have the device, Sally.
- Feel free to invest in new sensors.
- Find a single egg in an egg carton.
- 1% of cellphone size – 1% of 19”
- Take a measurement as soon as possible. - Get the math done, start with food scales, do not assume we know how to take a measurement.
- 20x20x20 is the largest but keep scalability an option.
- Don't plan on the vibration test, *super stretch goal*. He likes the idea; we should keep it in mind and not block ourselves out from accomplishing it (measurement during vibration).
- Need to be shelved for long periods of time. So, the device will need to be able to deconstructed and reconstructed and still be able to take accurate measurements.
- Calibrate the machine by hitting a bottom.
- Be able to take out effects of temperature.
- Temperature ranges of standard room temperature.
- He's comfortable about extending the budget, but we should check with Maughan, he seemed very against the idea of going over budget; he described overbudget as *failure*
- Don't rely on electronic measurements, do it first my hand, get tons of measurements done, prove you have a handle on it.
- Lots of Control Schemes to make this work, you can download them. Less about electronics, more about the measurements, he likes the marionet idea.
- Brain storming, after taking measurements. He says its fun to watch that.
- We can tour later.
- He is willing to meet in person.
- Don't wait to ask questions. We can get into a zoom meeting in 5 minutes
- Don't let machining be a roadblock. Wood, legos, get the stuff done. Don't build anything we can buy. (let him buy it).
- He wants to join the Maughan meetings.
- Emergency stop is completely additional.

Meeting Minutes

09/15/20

- Joseph has meeting link.
- Discuss the 2018/19 Capstone Project's work
 - What items should we build on?
 - Invest high quality load cells (strain gauge)
 - Can we trust the value from the linear actuator?
 - Should we keep their design?
 - Can we access their design, does the product still exist somewhere?
 - Ask about the device, can we pick it up.
 - Having the device would be helpful for testing
 - Do the measurements need to be done under vibration?
 - We should try to use their code and electric engineering work
 - What items should we discard?
 - Should we eliminate the two bars on top, so we can test other size SEL products.
- Prepare for meeting Joseph scheduled with SEL Jonathan (Wednesday, 09/16/20 @ 3:30 pm)
 - Review Client Meeting document from previous zoom class
 - What questions we should ask?
 - What are the smallest size objects we will be required to measure
 - How much larger than the 20x20x20
- Prepare for meeting Cameron scheduled with Dr. Maughan (Thursday's, @ 3:00 pm)
 - What is the zoom location?
 - Review Instructor Meeting document from previous zoom class
 - What questions we should ask?
- Review the budget that Keegan created
- Discuss how to submit the things we need to access: CAD lab, Senior Design Sweet, Laser Cutter, and Machine Shop
 - Ask graduate student/ian about getting training
- Discuss what should be completed by each team member for upcoming meetings
 - Meeting with SEL
 - Meeting with Instructor
- Dr. Maughan's advice
 - Stay in budget
 - Utilize prior teams work – do not start from scratch – but be opened minded

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- Do our own research about COG devices. (review *concepts considered*)
- Eventually, ask about budget flexibility

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09/09/20

- Determined meeting time Tuesdays at 2:30
- Joseph will:
 - will run gantt chart.
 - will reach out to SEL Contact
 -
- Cameron will:
 - Maintain meeting notes and send meeting agendas
- *Teams* will be our message app
- Group will review documents of COG 18/19
- Things we will need to access: CAD lab, Senior Design Sweet, Laser Cutter, Machine Shop
- Keegan will:
 - Create a budget

Meeting Minutes

09/08/20

- Introductions
- Graduate Student Introduction: Max Johnson
 - John9051@vandals.uidaho.edu
 - GJ113
- Professor Introduction: Dr. Maughan
 - maughan@uidaho.edu
 - Office Hours: M/W 2:30-3:30
- Established team meeting with Dr. Maughan
 - Thursdays 3:00pm
- Established Team name:
 - MASSPOINT
- Established team meetings:
 - Wednesday 4:00-5:00
- Piyush will checks with Becky about meeting room reservation
- Team Contract info given:
 - Jonathan Richards
 - jonathan_richards@selinc.com
- Remember to ask for prior project work
- Established Shared Drive folder
 -
- Established Teams Chat
- Dr. Maughan gave advice:
 - Agendas should help teammates prepare for meetings.
 - Keep pushing hard to meet deadlines or you are behind.
- Piyush will print documents found in share drive for next meeting
- Cameron will email Dr. Maughan team name and ask for prior capstone's work.