

Quality Tugs

Team Meeting 3 Agenda/Minutes

Date: Monday 24th

Time: 12:30 pm

Location: Senior Design Suite

- Review trip expense/budget with Chase
Roughly \$55, Swenson will email Chase final expense. Chase updated budget as well.
- Thoughts on trip to CDA
Chase - "Focus on one thing, and don't have to worry about the pallet jack anymore."
Nick - "Great that we don't have to work with the pallet jack anymore."
Josh - "Learned some things, got some good ideas."
Max - "Best part was when he showed us his ideas."
- Requirements Documentation
Max will cover requirement documentation.
- Initial Brainstorm
Lots of initial ideas that are wrote in our logbooks.
- Other topics or suggestions
Start 3-D printing wheels/tires with wheel pants.
Josh will measure wheel pants.
- Recap/Review Minutes

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Team Meeting 17 Agenda

Date: Thursday 7th

Time: 4:30 pm

Location: Catia Lab

- How close is the model?
 - Pretty close, fasteners and fix tabs

- Deadline for part drawings
 - February 19th

- Schedule design review and send Jeff an email
 - Thursday 21st?

- Next steps?
 - Spreadsheet/bill of material/manufacturing plan

- Individual Action Items
 - Chase- Update Budget/Schedule
 - Max-Add Fasteners to model
 - Josh-Contact Jeff/Drawing sheets
 - Nick-Tab-Model/Drawing sheets

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Team Meeting 21 Agenda

Date: Thursday 7th

Time: 4:30 pm

Location: Catia Lab

- What parts have we ordered?
 - All laser cut parts have been ordered
 - Tube steel has been ordered.
 - Bar stock has been ordered
 - All 80/20 parts have been ordered

- What parts do we still need to order?
 - Torsional Springs
 - Fasteners if Bill does not have any

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Team Meeting 2 Agenda/**Minutes**

Date: Monday 17th

Time: 12:30 pm

Location: Senior Design Suite

- Jeff proposed 2pm on Thursday. Does that work for everyone? Transportation?
Works great for everyone, departing at 12 from steam plant lot. Dr. Swenson is responsible for acquiring the truck for the pallet jack.
- Other action items?
N/A
- Review/revise rough budget written by Chase
Chase will be updating budget for a whole year plan.
- Initial ideas for design
Design will begin once we see the pallet jack on Friday.
- Other topics or suggestions
The next step is requirement page for the project, and be prepared for a list of questions for Jeff on Friday.
- Recap/Review Minutes

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Team Meeting 16 Agenda

Date: Thursday 31th

Time: 4:30 pm

Location: Catia Lab

- Review Model/make modifications

- What actuator do we need?
 - We need an actuator with at least a 12 in stroke to account for the closing and latching of the gate.

- 3D print things?
 - No need right now

- Brainstorm simpler ideas for gate hinge/latch
 - ¼ in steel using the tab-slot idea Swenson detailed.
 - Use torsional spring to keep gate and latch open.

- Individual Action Items
 - Chase- Update Budget/Schedule
 - Max-Tab-Slot Model
 - Josh-Tab-Slot Model
 - Nick-Tab-Slot Model, Spring research

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Team Meeting 10 Agenda

Date: Monday 12th

Time: 12:30 pm

Location: Senior Design Suite

- Thursday at 4:00pm is our design review with Jeff
 - What do we need to get ready for that?
 - Preparation meeting time?
 - Meet Tuesday and Thursday at 2:00 PM to prepare slides for design review on Thursday.
- Review ideas/progress
 - Do more research on latches, and gate ideas.
 - Linear actuators: Nick has prices and ratings in logbook.
- Other topics or suggestions
 - Create Skype Tuesday, and email to Jeff.
 - Josh will contact Molly about getting 3D filament.
- Recap/Review Minutes

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Team Meeting 6 Agenda

Date: Monday 15th

Time: 12:30 pm

Location: Senior Design Suite

- Update portfolio
Max will update portfolio, and requirement pages.
- Nosewheel with pant is modeled
Josh finished modeling wheel pant.
- Everyone's initial idea (from each person)
Start modeling ideas.
Use a linear actuator instead of hydraulic ram.
- Other topics or suggestions
Everybody is going to meet at 4:30pm on Wednesday to finish design validation.
Josh will research linear actuators.
- Recap/Review Minutes
N/A

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Team Meeting 5 Agenda

Date: Monday 8th

Time: 12:30 pm

Location: Senior Design Suite

- Revise requirements documentation as per Jeff's instructions
 - Calculate weight on nose wheel.

Josh will calculate static force.

Max will revise requirements document for snapshot.

- Snapshot preparation
 - We will meet tonight at 4 P.M.
 - Less words more pictures.
 - Snapshot is at 3:30 tomorrow.
- Start modeling tires and forks
 - Chase already modeled tires.
- Other topics or suggestions
 - Everybody come with a few designs next Monday.
- Recap/Review Minutes

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Team Meeting 20 Agenda

Date: Thursday 28th

Time: 4:30 pm

Location: Catia Lab

- Design review tomorrow
 - Get slides prepped to a tee so that design review goes swell.
 - Bring drawing package

- All drawings are finished but need to be put together in a drawing package.
 - Josh will put the package together

- Review and finish slides
 - Swenson liked the slides, and only a few things need to be changed

- Individual Action Items
 - Chase- Modify Schedule and Budget
 - Max-BOM/slides
 - Josh-Drawing Package
 - Nick-Finish Model

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Team Meeting 7 Agenda

Date: Monday 22nd

Time: 12:30 pm

Location: Senior Design Suite

- Start Modeling Ideas this Week?
Wednesday 2:30 P.M. in design lab.
- Contact Jeff about ideas before design review
Will be sending Jeff an email with our ideas so we don't get shut down at review.
Swenson will look over draft before sending it off to him.
Will talk about it on Wednesday in design lab.
- Wikimaster
Chase will be the man!
- Value Proposition
Basically, a document that explains why our project is important.
Wednesday at 2:30pm
- Other topics or suggestions
Use UHMW for low resistance spots, instead of bearings.
Research UHMW, and cost.
- Recap/Review Minutes
Nov 15th @ 3pm Design Concept review

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Team Meeting 19 Agenda

Date: Thursday 21th

Time: 4:30 pm

Location: Catia Lab

- Design review Friday March 1st @ 10am
 - YEP

- Draft Email for Jeff. Contents?
 - NOPE

- Individual action items for Design Review
 - Josh- Reserve Room
 - Max- Drawings
 - Josh- Drawing Package
 - Chase- Schedule and budget in slideshow
 - Meet next Tuesday @ 5:30pm

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Team Meeting 15 Agenda

Date: Thursday 24th

Time: 4:30 pm

Location: CAD Lab

- Updates on Modeling
 - Everybody met in cad lab, and went over updated model.
 - Weld as much as we can, and no machining.
 - CDA metals will be our supplier.
 - DXF files for laser cutting.

- Email to Jeff
 - Hold off for a week or so, until we have a fool proof design.

- Design Review with Jeff
 - We need to send Jeff an email to set up design review time.

- Deadlines and Due dates
 - Nothing due in the upcoming week.

- Need to Order anything?
 - Nothing needs to be ordered.

- Individual Action Items
 - Chase-Nothing
 - Max-Create email for Jeff, Model
 - Josh-Model
 - Nick-Model

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Team Meeting 13 Agenda

Date: Thursday 10th

Time: 4:30 pm

Location: Senior Design Suite

- New meeting time for spring semester
 - Keep Thursday at 4:30pm for now.
- Review Jeff's idea and sketch
 - Start modeling together and 3d print by end of next week.
 - Shoot for ordering material for prototype by March
- Fresh Ideas from over break
 - Nick ski binding thing
- Other issues/concerns
 - Ask Brandon when we need to use machine shop
- Individual Action Items
 - Max, Josh, and Nick – Model Model Model
 - Chase- Let Brandon know times to use machine shop.

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Team Meeting 11 Agenda

Date: Monday 26th

Time: 12:30 pm

Location: Senior Design Suite

- Recap of design review with Jeff
 - Thought it went great, and we think that we have a well understanding of what we need to do know.
- Look at Jeff's Email
 - Jeff's Design looked great, and we think that it will help manufacturing everything out of 8020.
- Snapshot day Friday morning
 - Basic Design
 - Linear actuator
 - Budget

 - Meet Wednesday at 2:30pm and Thursday at 2pm
- Recap/Review Minutes
 - N/a

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Team Meeting 8 Agenda

Date: Monday 29th

Time: 12:30 pm

Location: Senior Design Suite

- Update on schedule and wiki page from Chase
 - Wiki page: very rough draft, requirements, sketches/models, snapshot of where we are at.
- Review initial ideas from each person
 - Josh brought pictures of design that will be uploaded to OneDrive.
 - Nick uploaded animation to OneDrive of an idea.
- Discuss what/when we are going to send to Jeff
 - Will meet on Wednesday 3:30 P.M.
- Research linear actuators
 - N/a
- Other topics or suggestions
- Recap/Review Minutes

- **Quality Tugs**

Team Meeting 12 Agenda

Date: Monday 3rd

Time: 12:30 pm

Location: Senior Design Suite

- Recap of Snapshot
 - Snapshot went great we didn't have a lot of traffic being in the corner.
 - No new ideas or thoughts
- Brainstorm 8020 ideas
 - Josh will do research on 8020 and find the best prices, and best material
 - Other components need to be researched.
 - Meet at 2:00 PM in senior design suite.
- Order materials?
 - Chase order 3D print material.
- Recap/Review Minutes

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Team Meeting 22 Agenda

Date: Thursday 21th

Time: 4:30 pm

Location: Senior Design Suite

- Discuss Progress
 - Max will be welding the clamp this weekend
 - All parts are in besides torsional springs.

- Devise plan for moving forward
 - Just keep working hard!

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Team Meeting 25 Agenda

Date: Thursday 11th

Time: 4:30 pm

Location: Senior Design Suite

- What is left to finish?
- Final Paper
- What else do we need to get ready for expo?

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Team Meeting 18 Agenda

Date: Thursday 14th

Time: 4:30 pm

Location: Catia Lab

- What is left on the model?
 - Fasteners

- Preparing for design review, on Thursday at 11am
 - Get the ME conference room-Josh
 - Bill of Materials-Max
 - Drawings- Everyone
 - Schedule-Chase
 - Budget-Chase
 - Finish Model-Nick
 - Rough draft of slides-Chase

- What new things do we need for the portfolio?
 - Mar 5th

- Meet next Tuesday to prepare for design review
 - Tuesday 5:30pm
- Individual Action Items
 - Chase- Update Budget/Schedule/rough draft slides
 - Max-BOM/Drawings
 - Josh-Contact Jeff/Drawing sheets
 - Nick-Tab-Model/Drawing sheets/Finish Model

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Team Meeting 4 Agenda

Date: Monday 1th

Time: 12:30 pm

Location: Senior Design Suite

- Review and revise Requirements document

Max will update, and send to Jeff, and Dr. Swenson for review before snapshot.

- Brainstorm new ideas

All ideas are logged in personal logbooks.

- Start modeling tires and forks

Solid Models will be nice to show how the apparatus interacts with the tire.

- Other topics or suggestions

Chase will complete schedule/Gantt Chart.

We will all meet Thursday after senior lab to discuss Snapshot on Tuesday.

- Recap/Review Minutes

N/A

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Team Meeting 1 Agenda/Minutes

- Decide when to go to CDA to discuss with Jeff
 - Josh will be contacting Jeff on some possible dates to meet (Friday Morning, Sept. 21st, or Thursday Afternoon, Sept. 20th)

- Discuss Portfolio requirements and organization
 - 3 in. Binder needed
 - Purchase Dividers
 - Review Capstone Portfolio Form

- Discuss budget
 - Budget of Roughly \$2,500
 - Graduate students: \$519
 - Shop: \$500
 - Travel: \$170
 - University: \$119
 - Materials: \$1,192
 - Chase will rough the budget of materials out more in Excel spreadsheet.

- Brainstorm logo design
 - Nothing thought of yet.

- Other topics or suggestions
 - N/A

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Team Meeting 14 Agenda

Date: Thursday 17th

Time: 4:30 pm

Location: Senior Design Suite

- Registration for Design Expo
 - Chase will handle registration.

- Possible Gate Options
 - Carabiner design seems to be the one to run with right now, but it is not set in stone.

- Fresh Ideas
 - None

- Modeling Update/Projected Date to Have Everything Modeled
 - February 15th is design release review.
 - Everything needs to be modeled, and drawing sheets need to be done.

- Need to Order anything?
 - Nothing

- Individual Action Items
 - Chase- Register for design expo
 - Max-Model
 - Josh-Model
 - Nick-Model, and Research latch

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Team Meeting 9 Agenda

Date: Monday 5th

Time: 12:30 pm

Location: Senior Design Suite

- Date and Time for meeting with Jeff
Thursday, Nov 15th at 4:00 in ME conference room.
- Discuss what/when we are going to send to Jeff
Send him an email with brief ideas, and time for design review.
- Review initial ideas from each person
Ideas were reviewed, and new ideas will be implemented.
- Start building small scale models/3D printing
Josh will talk to Molly about purchasing filament.
- Other topics or suggestions
N/a
- Recap/Review Minutes