Date: Thursday, April 19, 2018

Members: All present Start time: 3:30 pm End time: 4:00 pm

# **Instructor and Team Meeting**

### **Key ideas:**

- Poster for Expo
  - Increase font size
  - o Add Cole's name and Todd's name
  - o Order Poster by Monday, April 23, 2018
- Presentation for Expo
  - Overview should be changed to show every slide heading
  - Rename various slides
  - Add a Bill of Materials for Scale Models slide
- Wiki-Page
  - Update photos
  - Archive section
    - Final Report Posted
    - Appendix data tables not graphs
    - Include poster
- Final Report
  - Show fuel consumption equations before giving plots
  - Appendix
    - Include extra plots in this section

- Submit poster
- Finish presentation slides
- Work on final report

Date: Thursday, April 12, 2018

Members: All present Start time: 3:30 pm End time: 4:00 pm

### **Instructor and Team Meeting**

#### **Key ideas:**

- Expo Presentation
  - High Priority
  - Send around via email to get feedback
- Poster board
  - Finish and send around to get opinions
  - o Show error propagation on one set of data
  - Submit by Monday, April 23, 2018
- Wiki-Page
  - o Do this first, then base Final Report off of Wiki-page
  - Archive section
    - Final Report Posted
    - Appendix data tables not graphs
- Final Report
  - Show fuel consumption equations before giving plots
  - Appendix
    - Include extra plots in this section
- Error Propagation Analysis
  - Error Propagation was further explained

- Submit poster
- Finish presentation slides
- Work on final report

Date: Thursday, April 5, 2018

Members: All present Start time: 1:30 pm End time: 3:30 pm

### **Instructor and Team Meeting**

#### **Key ideas:**

- Expo Presentation
  - About a dozen or so slides for the presentation
  - o 20 minutes start to finish, including transitions
    - Strive for no more than 13 minutes
  - Prepare the booth design
- Poster board
  - Try and design this quickly
  - Use standard size
- Wiki-Page
  - Archive section
  - Final Report Posted
  - o Reflect final report
  - Appendix data tables not graphs
- Final Report
  - Show fuel consumption equations before giving
- New meeting 3:30 on every Thursday
  - Not meeting the Thursday before expo
- Error Propagation Analysis
  - Error bars on each point
  - Dashed line
- Final Report
  - o Cole sent us documents to work on our final report
  - Documents also give more details about emissions
- Questions/Responses from Cole
  - Measuring at different angles (not needed)
  - No bull nose on hopper trailers
  - o Always will have the bins on the lead trailer and pup trailer

- Work on final report
- Get information clarified from Cole
- Plot data and document data

Date: Tuesday, April 3, 2018

Members: All present Start time: 1:30 pm End time: 3:30 pm

# **Instructor and Team Meeting**

#### **Key ideas:**

- Modeling
  - o All models completed
  - Reprinted front attachments for 48' trailer (to match colors)
- Wind Tunnel Recap
  - Using display values instead of LabView
  - o Performed 9 different trials for the 48' foot trailer
- Final Report
  - Cole sent us documents to work on our final report
  - Documents also give more details about emissions
- Questions/Responses from Cole
  - Measuring at different angles (not needed)
  - No bull nose on hopper trailers
  - o Always will have the bins on the lead trailer and pup trailer

- Work on final report
- Wind tunnel test most days
- Get information clarified from Cole
- Plot data and document data

Date: Tuesday, March 27, 2018

Members: All present Start time: 1:30 pm End time: 3:30 pm

# **Instructor and Team Meeting**

#### **Key ideas:**

- Modeling
  - All models completed
  - o Create a possible magnetic holder for the bottle glass of wind tunnel
- Wind Tunnel Recap
  - The set up for the wind tunnel went correctly
  - LabView wasn't working correctly since the display got changed
  - Can still record data from the display
- Wind Tunnel Troubleshooting
  - Brandon worked with the senior lab class to trouble shoot the display
  - Next Thursday is needed for further trouble shooting
- Final Report
  - Cole sent us documents to work on our final report
  - Documents also give more details about emissions

- Work on final report
- Schedule further wind tunnel testing for Friday, March 30
- Troubleshoot the wind tunnel with the senior lab class on Thursday, March 29
- Possibly print out a magnetic holder support

Date: Tuesday, March 20, 2018

Members: All present Start time: 1:30 pm End time: 3:30 pm

### **Team Meeting**

#### **Key ideas:**

- Modeling
  - Last of the models have been 3-D printed
  - o Lengths of rods for long tongue have been measured
  - o Long tongue rods need to be cut to the correct dimension
- Wind Tunnel
  - Need to conduct our wind tunnel testing
  - Schedule use for the wind tunnel on Friday, March 23, 2018
- Budget
  - Possibly will have to buy more 3-D printing material to make up for the material that we borrowed
- Schedule
  - o Project seems on schedule
  - Final testing needs to commence and be documented
- Final Report
  - o Begin final report and receive more information from Cole

- Work on final report
- Schedule further wind tunnel testing for Friday, March 23
- Cut out correct lengths for the long tongue rods
- Possibly print out a magnetic holder support or just tape the magnetics onto the underside of the wind tunnel

Date: Tuesday, March 6, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

### **Instructor Meeting**

### **Key ideas:**

- 3-D printing
  - o All main attachments have been printed
- Modeling
  - o All modeling completed
- Wind Tunnel Use
  - Testing to commence regularly on Friday mornings
- Tongue lengths have been measured and need to be cut to the correct dimensions
- Design Review II recap
  - o Making sure to use a nose cone on the lead trailer as well as the pup trailer
  - Distances to test
    - Roughly 7 feet to 20 feet
  - Use bull nose on the base model and the possum belly
  - Standards for the trailers are always on the lighter side (refer to slide 10 of regulations PowerPoint)
  - A full-scale trailer will be brought to be displayed at EXPO

- Test trailers
- Finish and wrap up project
- Begin writing final report
- Continue updating the wikipage for our current progress

Date: Wednesday, February 28, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

### **Instructor Meeting**

### **Key ideas:**

- Cole's Information
  - o Placing a tandem in front of the trailers instead of placing a truck
    - We went with an airfoil shaped structure
  - Tarp use
    - 6 inches higher that top of trailer
    - Decided on most likely not implementing the tarp design
  - Bull nose is ready for printing
  - Cole provided drawings for tongue lengths
- 3-D printing
  - o Bull nose attachment is ready for printing
- Modeling
  - All modeling completed
- Wind Tunnel Use
  - Need to let Kumar know when we want to test
- A-train trailers have been glued
- Design Review II scheduled for today
  - o Recap on information received

- Recap on information received from Design Review II
- Test trailers
- Finish and wrap up project

Date: Tuesday, February 20, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

### **Instructor Meeting**

### **Key ideas:**

- Cole's Information
  - o Placing a tandem in front of the trailers instead of placing a truck
    - We went with an airfoil shaped structure
  - Tarp use (If we have time)
    - 6 inches higher that top of trailer
  - Bull nose is ready for printing
  - Cole sent over drawings
- 3-D printing
  - Tongue attachment printed
- Modeling
  - All modeling completed
- Wind Tunnel Use
  - O Need to let Kumar know when we want to test
- A-train trailers have been glued
- Design Review II Date
  - o Changed to Wednesday, February 28, 2018
  - Prepare for that

- Prepare for Design Review
- Sand trailers
- Recap information based on Snapshot #3

Date: Tuesday, February 13, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

# **Instructor Meeting**

### **Key ideas:**

- Cole's Information
  - o Placing a tandem in front of the trailers instead of placing a truck
  - Tarp use (If we have time)
    - 6 inches higher that top of trailer
  - Bull nose drawing is correct
  - Cole will send over drawings
- 3-D printing
  - Hopper bins and possum belly completed
- Modeling
  - Tongue attachment ready for printing
- Wind Tunnel Use
  - Kumar has been contacted about wind tunnel use
- A-train trailers have been laser cut
- Design Review II Date
  - o Changed to Wednesday, February 28, 2018

- Finish 3-D printing
- Glue trailers
- Discuss with Dr. Kumar & Dr. Budwig about airfoil safety

Date: Tuesday, February 6, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

### **Instructor Meeting**

### **Key ideas:**

- Phone call with Cole
  - o Placing a tandem in front of the trailers instead of placing a truck
  - o Tarp use
    - 6 inches higher that top of trailer
  - o Bull nose
  - Cole will send over drawings
  - Project goals
- 3-D printing
  - Hopper bins and possum belly printing
  - o Further printing
- Modeling
  - Modeling tongue attachment
- Wind Tunnel Use
  - Talked to Kumar about using the wind tunnel
- Laser cut trailers on Wednesday, February 7, 2018
- Design Review II Date
  - Wait for the correct time
  - Tuesday, February 20, 2018 for everyone's availability

- Finish 3-D printing
- Laser cut trailers on Wednesday, February 7, 2018
- Finish modeling all parts
- Discuss with Dr. Kumar & Dr. Budwig about airfoil safety

Date: Tuesday, January 30, 2018

Members: All present Start time: 1:00 pm End time: 3:00 pm

# **Team Meeting**

#### **Key ideas:**

- 3-D printing
  - Try to print out all the parts at once
  - Need to make lots of new attachments
- Communication with Cole
  - Clarification for all types of modeling
- Modeling
  - o Laser cut multiple models
- Wind Tunnel Use
  - Schedule days for wind tunnel testing
- Purchasing wood
- New team portfolio tabs

- Start 3-D printing parts
- Complete a list of attachments
- Purchase wood
- Label the team portfolio according

Date: Thursday, January 23, 2018

Members: All present Start time: 1:30 pm End time: 3:00 pm

# **Team Meeting**

### **Key ideas:**

- 3-D printing
  - o Red material selected
  - o Order form filled out
- Design Review Recap
  - Responding to Cole
    - Clarification for all types of modeling
    - Give him a to do list/Questions
- Modeling
  - Get working on printing all attachments
- Wind Tunnel Use
  - Talked to Kumar about using the wind tunnel
  - o Contact him via email works best
- Signed up for Expo

- Turn in order form for 3-D printed material
- Perform more 3-D printing
- Email Cole

Date: Thursday, January 23, 2018

Members: All present Start time: 3:00 pm End time: 3:30 pm

# **Instructor Meeting**

### **Key ideas:**

- 3-D printing
  - o Printing a part for the tarp
- Responding to Cole
  - Clarification for all types of modeling
  - Give him a to do list/Questions
- Modeling
  - o Get working on printing all attachments
- Wind Tunnel Use
  - o Talked to Kumar about using the wind tunnel
- Create a week plan of attack
- Purchasing wood
- Labeling team portfolio

- Perform more 3-D printing
- Complete a list of attachments
- Create a weekly plan
- Purchase wood
- Label the team portfolio according

Date: Thursday, January 18, 2018

Members: All present Start time: 4:30 pm End time: 5:00 pm

### **Instructor Meeting**

#### **Key ideas:**

- New Meeting time
  - 3 o'clock Tuesdays
- Design Review Recap
  - Cole's Information
  - Responding to Cole
    - Clarification for all types of modeling
    - Give him a to do list
- Modeling
  - Easy way to switch between tarped and un-tarped
  - o Get all accessories done before any perfected modeling
- Wind Tunnel Use
  - Talk to Kumar about using the wind tunnel
  - Ahmad is authorized as well
- Technical Presentation for Western Trailer
  - Expo presentation as well
- 2<sup>nd</sup> Design Review could be done over the phone

- Buy some 3-D printed material
- Talk to Kumar about wind tunnel use
- Sign up for project fair

Date: Thursday, December 7, 2017

Members: All present Start time: 3:30 pm End time: 4:00 pm

### **Instructor Meeting**

#### **Key ideas:**

- Design Review Recap
  - SAE.org website for publication
    - Looking at which conference we should be
  - Further Model Designs
    - Open top on bulk commodity
    - Bull nose modification (very similar to nose cone attachment)
      - Ask Cole for more drawings
    - Tongue lengths to be tested
      - Standard distance is 4 feet apart in Canada
      - Standard distance can be 15 feet apart
      - Test with a nose cone
    - Tandem under the front of the trailer
  - Study some exaggerations
    - Rib affects
  - Supporting the truck in front of the trailer

- Put together a list of things we could study
- Turn in logbooks, profile, and wiki page tomorrow
- Research into SAE.org publication items
- Next steps of project

Date: November 30, 2017 Members: All present

Start time: 3:30 pm End time: 4:00 pm

# **Instructor Meeting**

#### **Key ideas:**

- Design review
  - Monday, December 4<sup>th</sup>
  - Tour of facility
  - o Talk to Cole and possibly Nathan Peterson and Todd Swanson
    - Ask about projector screen
  - Allow an hour for design review and Q/A
  - o 20-30 slides for presentation
- Travel
  - Leaving 11 am Sunday
  - Staying at the Holiday Inn
- Testing
  - Layout
  - Picture structure
  - Wind tunnel testing with the flat-floor base model and nose cone attachment was performed
- Modeling
  - o Finished gluing and assembling model

- Design review
- Write down lessons learned from wind tunnel testing
- Analyze data collected from the wind tunnel
- Finish Snapshot slides

Date: Tuesday, November 28, 2017

Members: All present Start time: 11 am End time: 12:30 pm

# **Team Meeting**

### **Key ideas:**

- Client and design interview date
  - o Wait until dead week December 4<sup>th</sup>
- Sting
- Machine shop
  - Axle cutting
  - Sting cutting
- Magnetics
- 3D printing

- Glue base model together
- Analyze data collected from the wind tunnel
- Get ready for snapshot day
- Prepare for design review

Date: November 16, 2017

Members: All present Start time: 3:30 pm End time: 4:00 pm

# **Team Meeting**

### **Key ideas:**

- Client and design interview date
  - Wait until dead week December 4<sup>th</sup>
- Wiki page
  - Layout
  - o Picture structure
- Model material
  - Made from wood
  - o Have sting attachment below the trailer
  - o Floor could be thicker. Walls thinner.
  - o Using wood comes in .25 in
  - o Wall thickness compared to overall width of trailer
- Purchasing 3-D print material

- Glue base model together
- Analyze data collected from the wind tunnel
- Get ready for snapshot day
- Prepare for design review

Date: November 14, 2017 Members: All present

Start time: 2pm End time: 3 pm

# **Team Meeting**

#### **Key ideas:**

- Watching a design review
  - o Keep it clean
    - Jake and Liam attended
  - Sled team
    - Brandon attended
  - Took notes to apply to our design review
- Prepare for instructor meeting Thursday

- Glue laser-cutted base model together
- Analyze data collected from the wind tunnel
- Get ready for snapshot day
- Prepare for design review

Date: November 9, 2017 Members: All present Start time: 3:30 pm

End time: 4:00 pm

# **Team Meeting**

#### Key ideas:

- Client and design interview date
  - Wait until dead week December 4<sup>th</sup>
- Wiki page
  - Layout
  - o Picture structure
- Model material
  - Made from wood
  - o Have sting attachment below the trailer
  - o Floor could be thicker. Walls thinner.
  - o Using wood comes in .25 in
  - o Wall thickness compared to overall width of trailer
- Purchasing 3-D print material

- Schedule laser cutting for the base model
- Analyze data collected from the wind tunnel
- Plot data
- Further assemble model

Date: Tuesday, November 7, 2017

Members: All present

Start time: 2 pm End time: 5 pm

### **Team Meeting**

#### **Key ideas:**

- Finishing up on manufacturing wheels
  - o 3-D printing of old wheels failed
  - Cutting out our own wheels
  - Using HAAS Lathe to drill center hole
  - Then using the band saw to cut them
  - o Need 16 wheels
  - Material is limited
  - o Further sanding of edges was needed
  - All wheels ended up being completed
- Wiki page
  - Was completed
  - Needs to be updated throughout the project
  - Need table of contents
  - Wiki page review is today

- Continue to update and add to the wiki page throughout the project
- Discuss how the wiki page review went
- Create a scaled down SW model for a couple more designs
- Create agenda for instructor meeting

Date: Monday, November 6, 2017

Members: All present Start time: 2:30 pm End time: 5 pm

# **Team Meeting**

#### **Key ideas:**

- Manufacturing wheels
  - o 3-D printing of old wheels failed
  - Cutting out our own wheels
  - Using HAAS Lathe to drill center hole
  - o Then using the band saw to cut them
  - o Need 16 wheels
  - Material is limited
- Wiki page
  - Was completed
  - Needs to be updated throughout the project
  - Need table of contents
  - Wiki page review tomorrow Tuesday 7, 2017

- Continue to update and add to the wiki page throughout the project
- Create a scaled down SW model for a couple more designs
- Create agenda for instructor meeting

Date: Thursday, November 2, 2017

Members: All present Start time: 3:30 pm End time: 4 pm

# **Team Meeting**

### **Key ideas:**

- Phone interview with Cole Lewis
  - Wind tunnel testing data reduction
  - 3-D printing progress
  - Wiki page review
  - Design review date
  - Future plans
- Wiki page
  - Draft due tomorrow
  - o Layout
    - Title, Problem Definition, Project learning
    - More information and pictures were added
  - Cole approved use of company photos/logo

- Continue to update and add to the wiki page by Friday (11/3)
- Create a scaled down SW model for a couple more designs
- Create agenda for instructor meeting
- Use shop to create the wheels on the lathe

Date: Tuesday, October 31, 2017

Members: All present

Start time: 2 pm End time: 3 pm

# **Team Meeting**

### **Key ideas:**

- Wiki page
  - Draft due Friday, November 3
  - Layout
    - Title, Problem Definition, Project learning
    - Layout was added, need information added
    - More information and pictures were added
- More math modeling commenced
  - o Jacob compared some of the wind tunnel data to that of his own
- Modifications for actual prototypes commenced
  - o Further planning for the construction of the wheels happened

- Continue to update and add to the wiki page by Friday (11/3)
- Create a scaled down SW model for a couple more designs
- Create agenda for instructor meeting

Date: October 26, 2017 Members: All present Start time: 9:30 am End time: 11:30 am

# **Team Meeting**

### **Key ideas:**

- Wind Tunnel Testing
  - Testing commenced
  - Our design for our test block needs work
    - It spins on the sting
    - Possible set screw needed
    - Adding a square or hexagonal shape internally
  - Data was collected
- Wiki page
  - o Draft due Friday, November 3
  - Layout
    - Title, Problem Definition, Project learning
    - Layout was added, need information added
- Further discussion
  - Sending progress report

- Continue to update and add to the wiki page
- Create a scaled down SW model for a couple more designs
- Discuss progress with instructor
- Send progress report to Cole

Date: October 24, 2017 Members: All present Start time: 2:00 pm End time: 4:00 pm

### **Team Meeting**

#### **Key ideas:**

- Box prototype
  - Hole size increased slightly to fit on the sting of the wind tunnel
  - Ready for testing and collecting data
- Budget
  - Metal for scale model ordered
  - o Transactions for purchasing items have been authorized
- Wiki page
  - Wiki page has been created
  - o Details, layout, and images need to be added
  - Username: john2420
  - Password: Canada20
- Communication with Rick
  - Possible wind tunnel testing Thursday or Friday morning

- Schedule an official time for wind tunnel testing
- Continue to update and add to the wiki page
- Create a scaled down SW model for a couple more designs
- Create an agenda for Thursday's meeting
- Create a progress report for Thursday's meeting
- Gather information from wind tunnel testing to finalize model designs

Date: October 19, 2017

Members: All present

Start time: 3:30 pm

End time: 4:00 pm

### **Instructor Meeting**

#### **Key ideas:**

- Prototype
  - o Check with personal whether our model is okay to use on the sting
  - Paying for the material (not needed, just recording how much material was used)
- Drawings of Assembly
  - Sending them to Cole
- Purchase shaft and 3-D print wheels
- Don't worry about little details on wheels
- Client visit
  - o Tentatively plan to have a visit around the same time as Design review
- Wind Tunnel testing
  - Modify the hole on the box prototype to fit on the sting
  - Start data collection

- Modify 3-D printed part for testing
- Schedule a time for wind tunnel testing
- Further develop model for trailer
  - o Parts order for model trailer
    - Metal for axle
  - o 3-D print wheels
  - Laser cut base (future)
- Create a wiki page

Date: October 17, 2017

Members: All present

Start time: 2 pm

End time: 3:15 pm

### **Team Meeting**

#### **Key ideas:**

- SOLIDWORKS modeling
  - Scaled-down model of a flatbed trailer created
    - Designed to fit on the sting in the wind tunnel
    - Will be created later after further prototyping
  - Early prototype
    - Generic cube model trailer cube
    - Has same sting mounting design as the model flatbed trailer
    - Will be used for practice testing within the wind tunnel
- 3-D printing
  - Email sent to Sarah with our prototype to be printed
- Continued similitude calculations
  - o Geometric similitude has been finalized
  - Dynamic similitude is still being looked into

- Phone call to Cole Lewis during instructor meeting
- Set up a tentative site visit date
- Discuss Model Drawings
- Discuss progress with testing the model trailer cube
- Talk more about dynamic similitude
- 3-D print and test generic cube model of trailer for wind tunnel use

Date: October 12, 2017

Members: All present

Start time: 1:45 pm

End time: 2:15 pm

# **Team Meeting**

#### **Key ideas:**

- Created Agenda for Today's Instructor Meeting
  - o Discuss refined Project Description
  - Similitude Calculations
    - Geometric similitude
    - Dynamic similitude
  - Graduate student meetings
    - Rick Leathers
    - Ahmad
- Math modeling
- Budgeting
- Progress report update

- Attend instructor meeting in an hour
- Continue working with similitude calculations
- Create math models in MATLAB or another related program
- Decide on a scale model so 3-D printing can commence

Date: October 12, 2017 Members: All present Start time: 3:30 pm End time: 4:00 pm

#### **Instructor Meeting**

#### **Key ideas:**

- Review project description and specifications
  - Sending current one to Cole and Todd
  - o Possibly merging previous descriptions with current ones (check email)
- Similitude
  - o Geometric ratios (multiple ones)
    - L truck/L model
    - L\_ribs/L\_model
    - f(L,V,rho,D)
    - L^a v^b rho^c = F
  - Possibly discovering ratios via experimental data
    - Testing at multiple speeds
    - Look into aspect ratios
- Modeling
  - Laser cutting the base
  - Possibly using foam
  - Wall thickness
    - Giving similar thickness for flexibility
  - Not having too large of a model
  - Which glue to use for wood parts (Talk to Colton)
  - 3-D print one strand on the walls for ribs
- Math modeling
- Ahmad
  - o If further contact is limited, possibly test using just a block in the wind tunnel
- Snapshot poster discussion
  - Think about items such as ribs along the walls

- Have some prototypes created
  - How to use the laser cutter
- Drawings of the scaled parts
- Think about orientations and predicted velocities used
- Testing with some sort of object within the wind tunnel
- The velocities chosen may depend on the Reynolds numbers calculated

Date: October 5, 2017

Members: All present

Start time: 3:30 pm

End time: 4:00 pm

### **Instructor Meeting**

#### **Key ideas:**

- Phone call with Cole and Todd
  - Receiving another pup trailer design
  - o Parts received are full sized and need to be scaled down
    - We need to address the problems that come with scaling down
    - Walls and other features can only be scaled down so far
  - Possible manufacturing technique
    - Using foam and heated cutting
  - Trip to Boise
    - 1<sup>st</sup> to the 2<sup>nd</sup> week of November (tentatively)
    - May be timed to be around the time of the performance review
- Snapshot day (Tuesday, October 10, 2017)
  - Problem Statement
  - Results of project learning
    - Pictures of Wind Tunnel and data of learning
  - Creating poster (30" x 40" poster; use of PPT slides)
  - Located in the shop

- Create poster for snapshot day
- Look into scaling for the models
- Continue with model creation

Date: October 3, 2017

Members: All present

Start time: 2 pm

End time: 3 pm

# **Team Meeting**

#### **Key ideas:**

- Finished project specifications draft
- Laser cutting training
  - o Possible date Wednesday, October 4, 2017. At 12 pm
- Contact with client and instructor
  - Emails sent out discussing project specification and questions about drawings received
- Planned agenda for Thursdays instructor meeting
  - o Emailed out agenda to Dr. Beyerlein

- Schedule laser cutting training
- Prepare for instructor meeting
- Contact client about drawings received
- Prepare for client phone call during Thursday's instructor meeting

Date: October 2, 2017

Members: All present

Start time: 3:30 pm

End time: 4:30 pm

# Meeting with Todd Swanstrom and Dr. Beyerlein

# **Key ideas:**

- Regulations discussion
  - o PowerPoint holds important information
- Their trailers fit into a very small category
  - o Non-trailer category: Flat-bed and bulk commodity
- Budget discussion

- Create one paragraph summary of project
  - o Deliverables
  - Budget
  - o Designs
- Shop training Thursday, October 5, 2017
- Log books due Thursday, October 5, 2017

Date: September 28, 2017

Members: All present

Start time: 3:30 pm

End time: 4:30 pm

# **Team Meeting**

### **Key ideas:**

- Schedule shop training
- Finish transcript
- Review progress report
- Email transcript and progress report to client and instructor

- Shop training at 11:00 am on Thursday, October 5. Should last an hour.
- Review Gantt Chart
- Contact Alex about laser cutter training
- Analyze drawings

Date: September 26, 2017

Members: All present

Start time: 2:00 pm

End time: 3:30 pm

# **Team Meeting**

# **Key ideas:**

- Gant chart
- Client interview transcript
- Future phone call with client
- Progress updates

- Begin working on an early Gant chart
- Review questions asked and answers received to produce a summary of lessons learned
- Write a progress report for client
- Meet with Ahmad to watch his tests

Date: September 21, 2017

Members: All present

Start time: 3:30 pm

End time: 4:00 pm

# **Instructor Meeting**

#### **Key ideas:**

- Client contact
  - o Progress report
  - What we found out
- Dr. Beyerlein will be gone next week Thursday, September 28
- October 3 is alumni day at lecture
- October 5 log books will be collected
  - o Remember to do the log book form
- October 10 snapshot day
- Make prototype out of wood
  - Testing variations cheaply and quickly
  - Using laser cutter (Sarah can help)

- Learn how to run and test the wind tunnel
- How to use LabVIEW
- Talk to Ahmad
- Make our own truck trailer

Date: September 19, 2017

Members: All present

Start time: 2:00 pm

End time: 3:00 pm

# **Team Meeting**

#### **Key ideas:**

- Contact with Western Trailer Jake
- Meeting minutes –Liam
- Documentation Brandon
- Contact with Ahmad Brandon

- Postponing meeting with Western Trailer Jake
- Getting schematics from Cole Jake
- Posting meeting minutes to shared drive Liam
- Updating portfolio Brandon
- Keep in contact with Ahmad about his testing Brandon
- Write agenda for 2<sup>nd</sup> instructor meeting Everyone

Date: September 14, 2017

Members: All present

Start time: 4:30 pm

End time: 5:30 pm

# **Instructor Meeting**

#### **Key ideas:**

- Discussion on questions asked
- Scheduling of client visit
- Information gathered
- Other pressing questions
- Wind tunnel use

- Record what we learned from our client interview
- Create a follow-up email for Cole
- Learn more about the wind tunnel and its operation
- Work on early designs for a 3-D printed, basic trailer

Date: September 12, 2017

Members: All present

Start time: 2:00 pm

End time: 4:00 pm

# **Team Meeting**

### **Key ideas:**

- Finished team contract
- Communicated with our mentor Sarah
- Preparation for client phone call
- Calling client

- Create a progress report
- Discussing possible visit dates
- Discussing client interview with Dr. Beyerlein at instructor meeting
- Creating agenda for instructor meeting

Date: September 6, 2017

Members: All present

Start time: 3:00 pm

End time: 4:30 pm

# **Team Meeting**

#### **Key ideas:**

- Communication within our team
- Budgeting
- Instructor Communication
- Writing team contract
- Contacting Dr. Tao and Ahmad about their research

- Create a shared drive for team use
- Create agenda for instructor meeting
- Finish Team contract
- Posting meeting minutes
- Think about questions and other project ideas