Mary Uloth
Journal 02 (December 11, 12, 14)
Date Due 1/3/2018

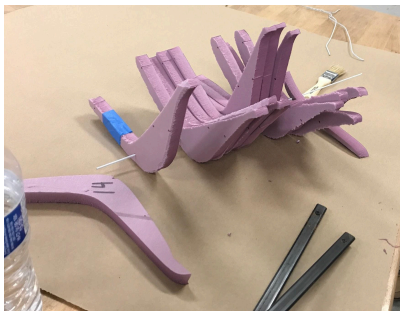
Journal 03

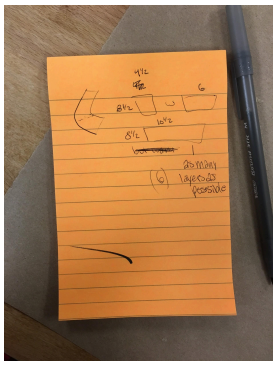
DATE: 12/11 - after school

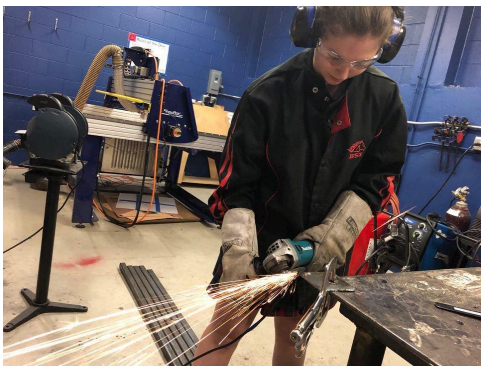
Team/Group members involved:
Sohum, Dodsons, Darien, Ryan, Kavita, Emma, Katie

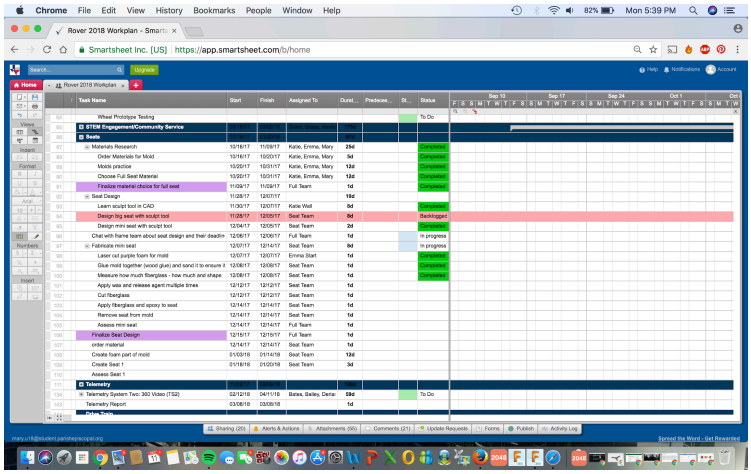
What I did (bulleted work summary):

- Put together foam mold for mini seat
- Measure how much fiberglass is needed for one layer over seat mold
- Look at smartsheet
- Plan when to come in more
- Take Angle grinder hands on quiz







What I learned (implications of work):

Today was fantastic! We were able to glue together the mini seat mold, but when we did so we realized there was no good way to line up the pieces. We tried stringing them on a wire through holes the laser made and quickly realized that did not match up. We ended up looking at the image of the seat in the slicer tool to decide how far up or down the piece went. When we design the big seat I believe we will try to insert a rog through the center to that we can string them together. Once the seat was glued together (with wood glue) we measured how large of a rectangle of fiberglass we would need for one layer. This came out to be about 8.5 by 10.5 inches. We decided to go with fiberglass because overall it should be cheaper than carbon fiber and it should be strong enough for what we need. Advice to others would be to make sure you can lin up what you are gluing to that it is as accurate as possible. After gluing the seat I took my angle grinder quiz and honestly what a good quiz. This is one of the tools that scares the the least so I like knowing what I am doing. This tool quiz is important to the whole team because we use the angle grinder a lot to grind sharp edges and cut metal once it's on the rover. We are on schedule for everything excerpt designing the big seat, this should probably be done after we asses the small seat but I think we have a good handle on it.

DATE: 12/12 - B 1

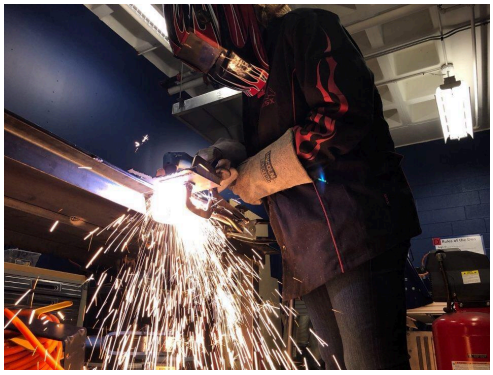
Team/Group members involved:

Emma and I

What I did (bulleted work summary):

- Practice welding
- Took plaza cutter quiz



What I learned (implications of work):
I am actually getting a little better at welding!! Emma and I came in to practice today and to our surprise actually improved a bit. The welds are not fantastic but they are functional and getting better. I discovered that I need to go a little faster than I used to and at a more consistent speed. Once we were done practicing Emma and I set up for the plasma cutter quiz, but I was the only one that ended up taking the quiz during free. I was a bit scared and took quite a while to actually cut through and had to make several passes. In the eng I got it but it took longer than it should have. Something I learned was to not be afraid of new tools. The more I hesitated the longer it took even though it wasn't that bad. Being able to use all the tools is essential to the team so it's good that I was practicing and learning today.

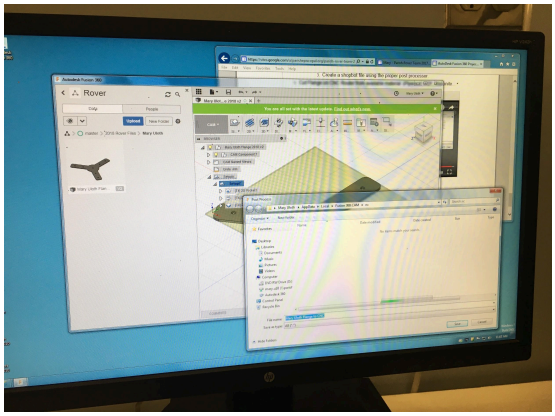
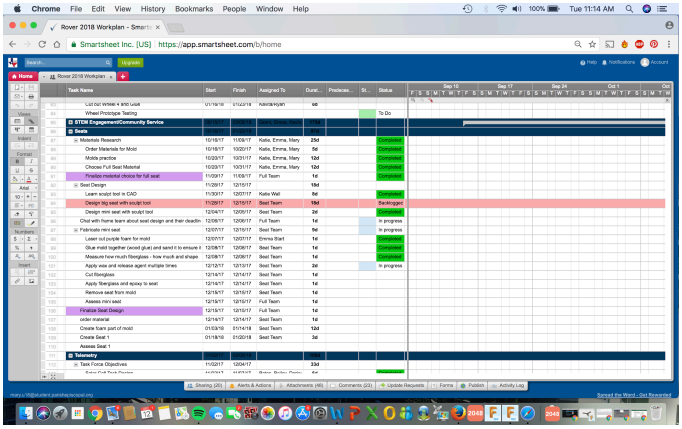
DATE: 12/12 - Class

Team/Group members involved:
Full Team

What I did (bulleted work summary):
- Sand the seat mold
- Wax the seat mold

- Work on CAD project



What I learned (implications of work):

I got to sand down the seat today and for some reason I love sanding. It's so satisfying when something goes from rough to smooth. This is important because it will allow the fiberglass to lay flat to form a smoother seat. We covered the mold in wax and let that dry so that we could add another layer, this is important so that we can smoothly remove fiberglass from the mold (I believe that Katie is coming in tomorrow to apply release agent). Then I worked on creating a shopbot file for my CAD project and spend a few minutes worrying that it came out with a bunch of code, but the CNC runs of code so that actually makes sense. We are still on schedule for everything but designing of the big seat, this will probably happen over christmas break or after we asses the mini seat. It's important that we get the seats right so that they work well with the frame and are comfortable for the drivers.

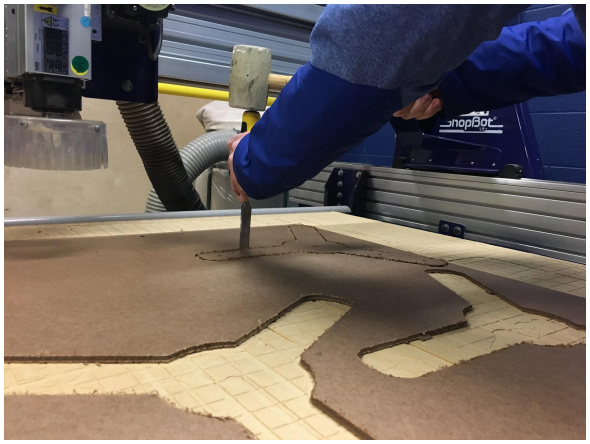
DATE: 12/14 - Class

Team/Group members involved:

Full Team

What I did (bulleted work summary):

- Cut Flange
- Fiberglass on seat mold
    - Sheet of Fiberglass and epoxy had cabosil - also used small shreds of fiberglass

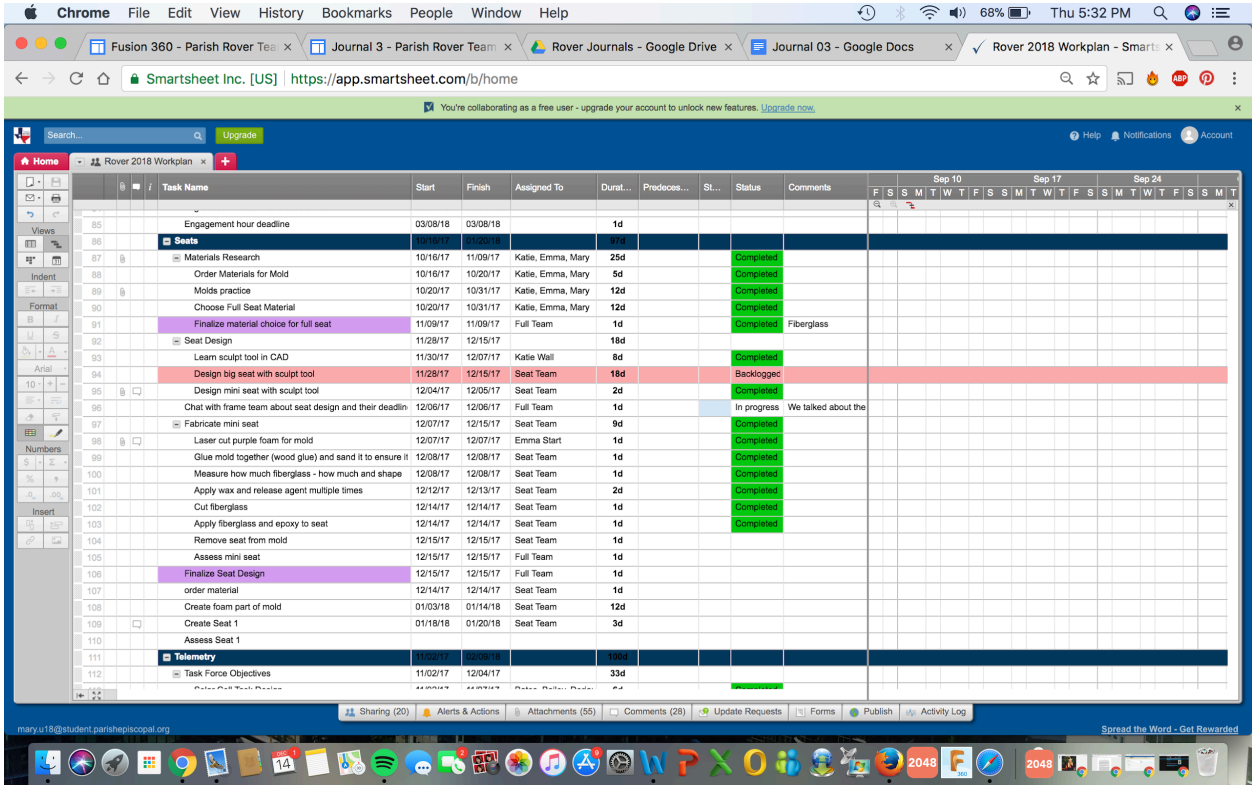





What I learned (implications of work):

I cut out my flange today and it went really well! I have never interacted with the CNC before so it was really cool. We left three tabs on it to keep the flange in place as the CNC cut it our. These tabs were broken by hitting it with a mallet and chisel. After I finished my flange project Katie, Emma, and I applied the fiberglass to the seat mold. This went WAY better than our first attempt last year. The fiberglass laid down smooth and we were easily able to control it. We also added cabosil to the epoxy to thicken it up, this made it easier to apply and kept the fabric from sliding around. After applying all six layers we cleaned up and looked at the result - which was pretty good for our first time! Things that I would change for the future would be the mold itself - the sides need to be a bit more defined so that we know where exactly to cut. We are on schedule as far as making the seat but it looks like we may not be able to access it till after the break. The assessment will be important as it will impact the final design. The entire team also had a talking to about journals at the beginning of class and about how we need to relate everything to the team. Makins drew an amazing picture with circles and little stick figures to show the journey

from beginning to competent. This talk was useful because it showed how we all need to grow and reminded us that with work our journals will get better.



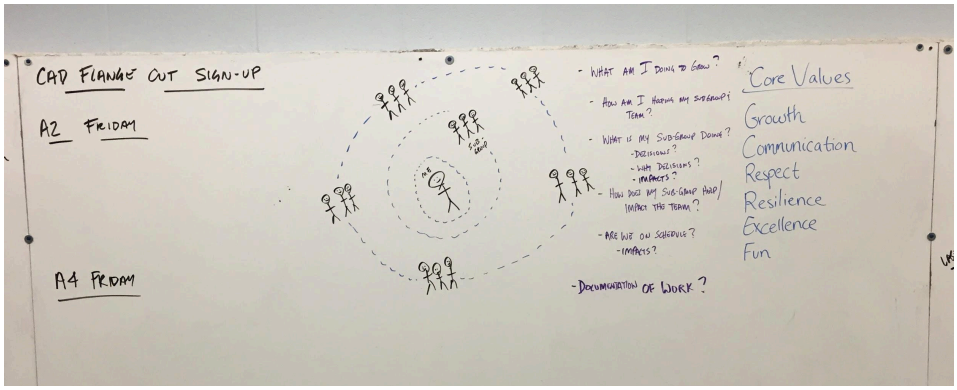
DATE: 12/14 - after school

<u>Team/Group members involved:</u>

Nate, Bates, Darien, Bailey, Katie, Emma, Kavita, Sohum, Mark

<u>What I did (bulleted work summary):</u>

- I wrote all my journals for this week including this one
- Posted my CAD project



What I learned (implications of work):

After school today may not have been super productive but I did get all my journals written and finished posting my CAD project. I had finished all my tool quizzes so this seemed like the thing to do. The talk over journals really made sense this morning with how this is a way to track progress and find out what others are doing. Journals are time to explain what happened and why it happened, along with why any of it matters. Journals allow us to reflect on the day and figure out how we can improve. That said this block of time went well because I got all these journals done. Things I would change for next time might include being more efficient and seeing if the wheel team needs any help.