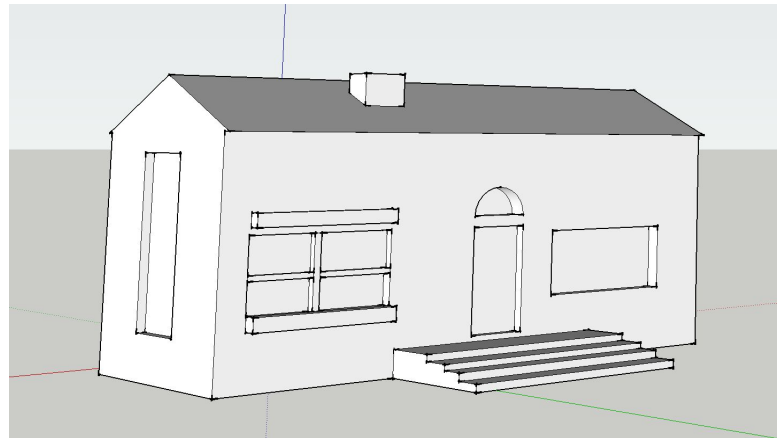


Lena Freeman
Comparative Tech
Weekly Reports

Week 2

This week, I focused on gaining familiarity with 3D printing, the Cal Young Middle School technology lab, and all of the software that is available out there. I downloaded 123d Design, SketchUp and Meshmixer to starting playing around with. I was amazed at how well Eric's students have embraced 3D design, and find it rather inspiring to have their help and guidance. One student, Elizabeth, took the time to show me how to quickly make a design in 123d Design Plus, and how user friendly the software was. I am still a little intimidated by learning the different software. However, with practice, I'm sure it will be manageable.

As of this point, I have found that 123d Design and Meshmixer are going to require more attention that I had originally thought. SketchUp seems relatively user friendly. I was able to create a house by following the tutorial available on the



SketchUp: Getting Started page. For not having any prior experience with this type of software, I was pretty impressed that I was able to get as far as I did. I don't think that I'm in the place where I'm ready to print anything yet. However, I do feel that with more practice, I will be able to get to the point where I can actually make something that is viable for printing.

Tasks to Complete:

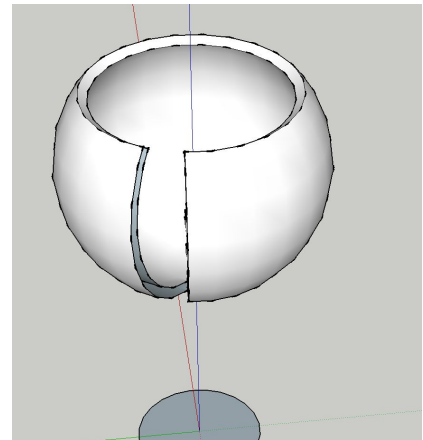
Familiarize myself with the other software programs
Research for some tutorials that help give step by step instructions
Create something that could be attempted to actually be printed

Week 3

This week, I started to dive into the tutorials that are on Eric's blog for Cal Young. I've been doing some individual research in searching for YouTube videos and other online resources. However, I've found that it has been more of a challenge for me to weed out some of the resources that are too advanced for me, and what is useful to me at this point in my learning.

I've been working mostly in SketchUp at this point. I've found that right now, it is the least intimidating platform between 123d Design and Meshmixer. Truthfully, Meshmixer looks super intimidating, and I have no idea how to even approach that platform yet...

I've been working on learning how to make the cup/sphere in SketchUp. Which hasn't been as easy as I would have hoped. Not only has it been a bear to learn how to make the cursor draw on the Y-Axis, I can't seem to get a completed cup.



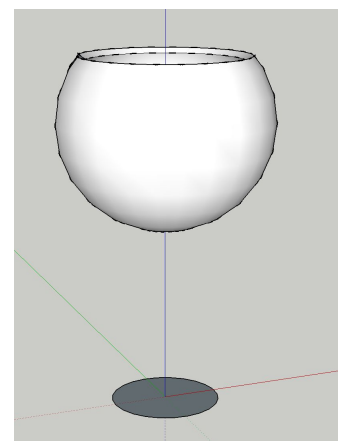
After learning the basic of the Adobe Suite in Marketing, Media, and Communications, I think I had a false sense of what learning new platforms would be like. In my mind, since I was able to learn these skills without a huge amount of difficulty, I just assumed 3d printing would be the same. The biggest challenge for me is to now think in three dimensions. Not just two.

Note: After multiple tries, I finally made a completed cup!

Tasks to Complete:

Familiarize myself with 123d Design

Create something that could be attempted to actually be printed



Week 4

This week, I started to dive into 123d Design. On Tuesday, I spent part of my afternoon at the Cal Young lab to work with some of Eric's students. Although I was previously intimidated with starting in 123d Design, seeing these students breeze through the motions gives me hope to being able to learn these new platforms. Learning these platforms isn't too different than learning the Adobe Suite, although 3d design software just has a different set of tools. My challenge is to learn what these tools are used for, and how to apply them to manipulating designs.

While at Cal Young, Eric's students walked me through making a "simple" row boat. I used the term "simple" loosely. There are several steps in making this boat, and each step requires a different set of tools. I was surprised at the ease that these students, not only would collaborate to solve problems together if one was stuck, but also how they were able to reproduce these designs from memory without the use of a YouTube tutorial.

During my lab session, I assumed the role of an observer. I find that it is easier for me to learn things after I'm shown once or twice before I try to take on the challenge myself. It was very helpful for me to see the process in action, and I hope that I will retain some of the skills that were shown to me when I try to create a boat on my own.

During my work session, I learned the difference between a polyline and a spline, extrude and push/pull, fillet and chamfer, and how to add text. These tools seem to be very applicable to a variety of different uses. Most of the students had moved on to creating a working nut and bolt set, which I hope to accomplish in the near future. However, for right now, I will stick to some of the less complicated designs to gain a better understanding of these platforms.

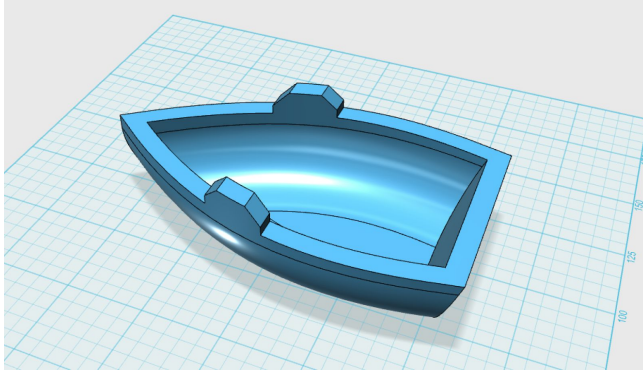
Tasks to Complete:

Try working with 123d Design

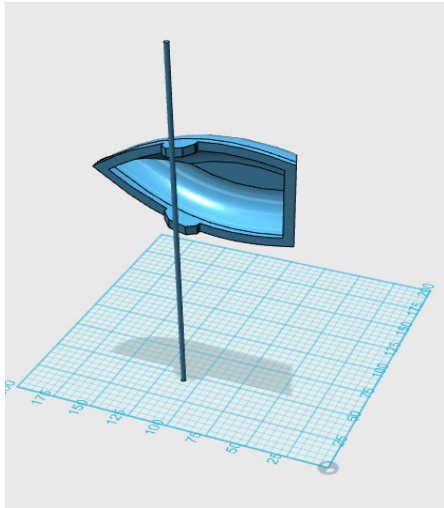
Create something that could be attempted to actually be printed

Week 5

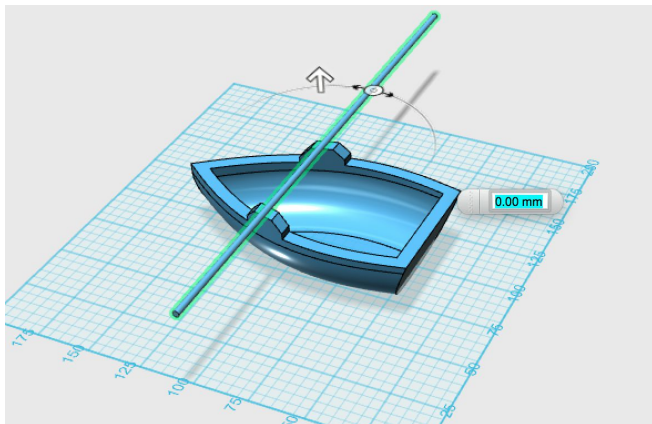
This week, I made a boat! Well... two boats... But we'll get to that later.



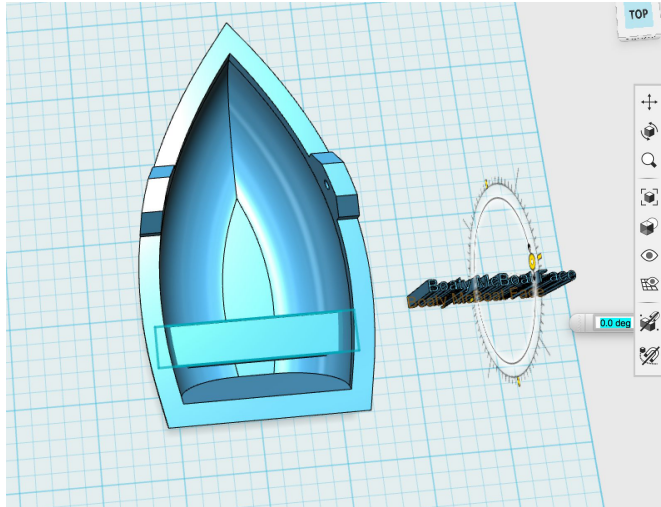
I used a YouTube tutorial to walk me through the process.



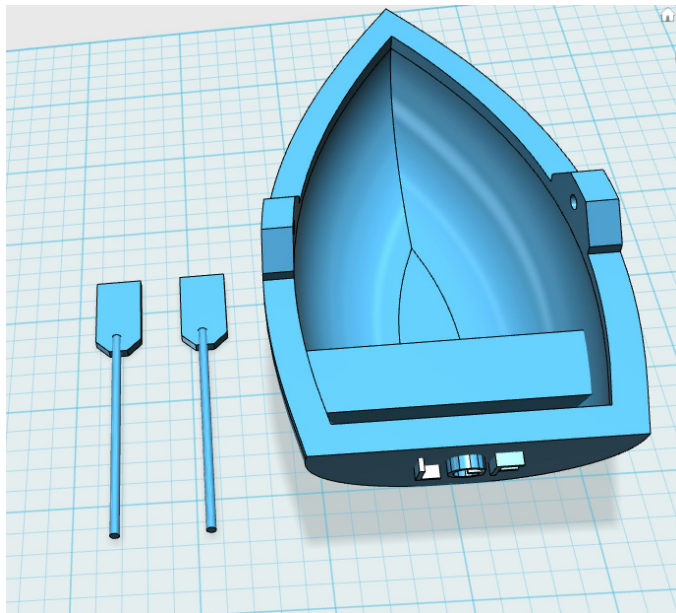
However, even with the tutorial, I had some difficulties... The order in which you click on faces is very important, as it turns out.



But after some choice four letter words, and lots of Control + Z, I was able to figure it out.



Aaaaand this is when my software froze.... Before I was able to save. Some things in life never change. Like forgetting to save your work as you go along in the event that your software crashes right when you're just about to put the finishing touches on something... (and yes, I was going to name my first boat "Boaty McBoat Face").



Having a software crash was *almost* a blessing in disguise. After walking away from it for a hot minute, I was able to sit down and breeze through the first several steps before needing the tutorial's help again. This time, I also saved my progress intermittently to make sure that I didn't repeat my same mistakes. This boat is named LGF... after my initials. Original, no?

I'm hoping that the boat ors fit once it is all printed. I only made them

1mm thick, and the boat's ors holes are 1.5mm in radius. They're going to be super delicate once printed, so they may not hold up. But I'm going to attempt to print LGF this week to see how it does.

Tasks to Complete:

Continue working with 123d Design

Create something that could be attempted to actually be printed

Midterm Checkpoint

So far, I have been able to learn the basics of 3d printing. With the help of Eric's students at Cal Young Middle School, I have had a great opportunity to have a hands on approach to learn these platforms. If it wasn't for this resource, I can guarantee that I would not have had the same willingness to learn these new software programs. Although, I have yet to print anything, I feel as though I have a relatively good understanding of how the 3d printing process works. My goal before our midterm checkpoint class is to come to class with my boat printed. Successfully done, or otherwise.

Moving forward, I am going to focus my efforts on following the tutorials for creating guided projects. Towards the end of the term, my goal is to make a completely original design for my final project. This would allow me to continue to develop my skills within these programs, and then apply those skills to my own creating my own design.

Remaining Weekly Schedule:

Week 6: Attempt the nut and bolt tutorial

Week 7: Attempt suggested project

Week 8: Attempt suggested project

Week 9: Attempt personal project

Week 10: Attempt/Troubleshoot personal project