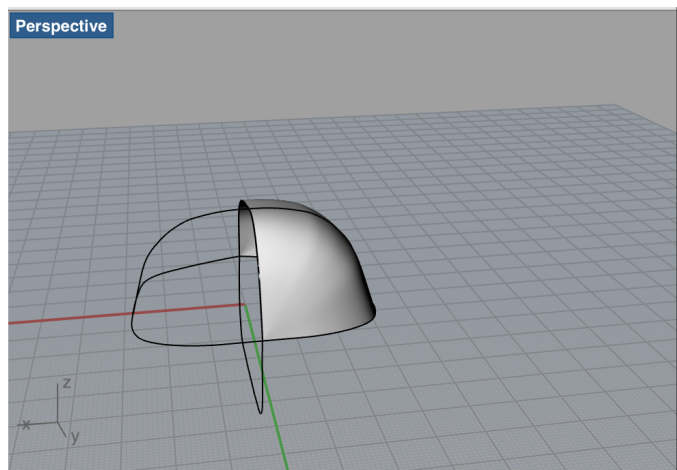
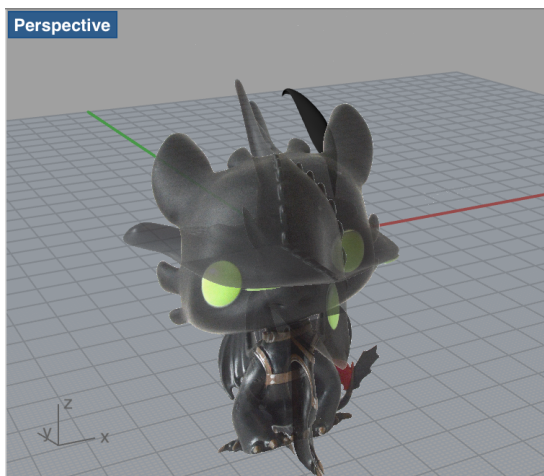


## MODELING TOOTHLESS

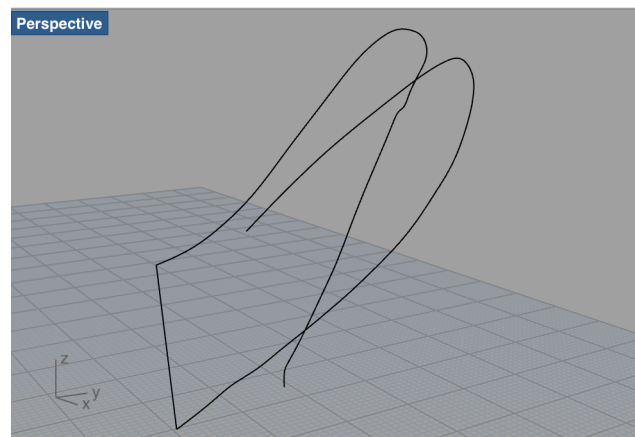
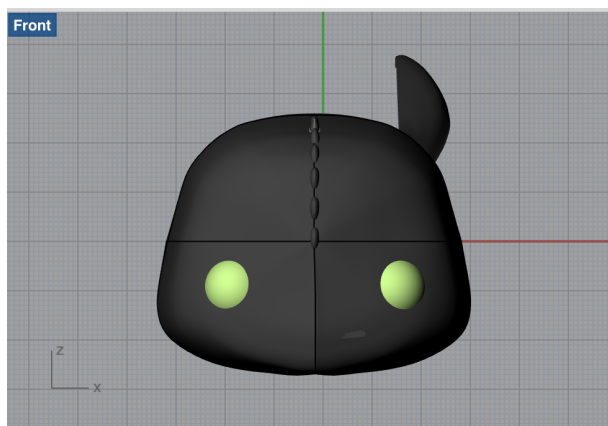
ENDS DESIGN MEDIA 2

Brooke Kaminski

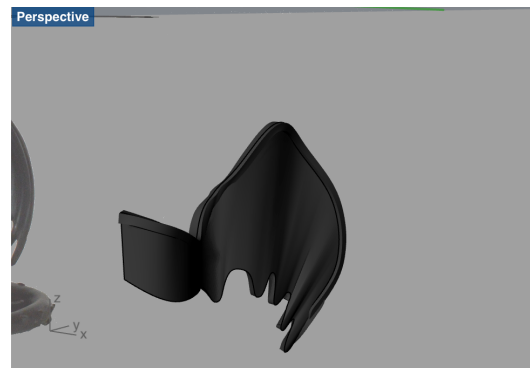
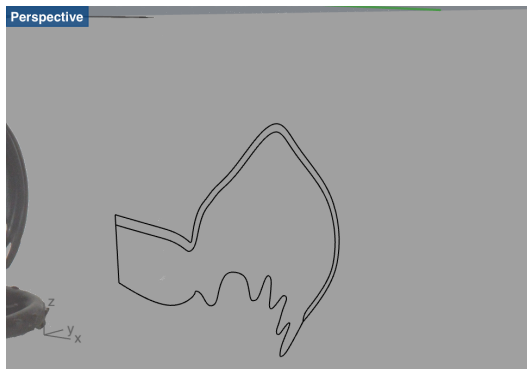
Week 4: We ordered our toy online, so we did not receive him until the end of the week. The first stages involved trying to trace the sections, which did not end up being successful when trying to turn those into surfaces. I then moved on to using photographs of the front, side, and top to trace the model. I used the method from the lightbulb tutorial and lined them up at the same point. I began with the head, which seemed the least daunting, and using network surface I was able to construct the skull in four pieces.



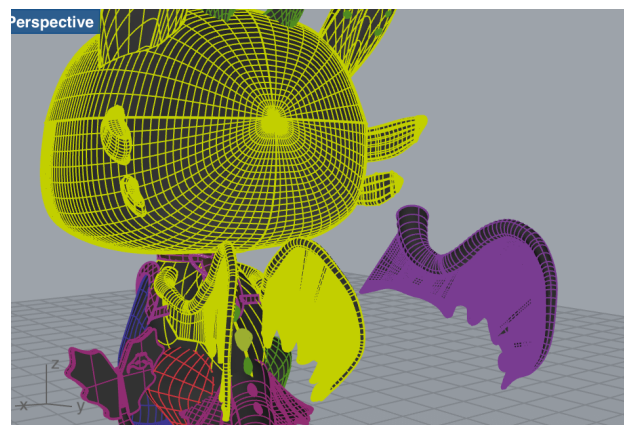
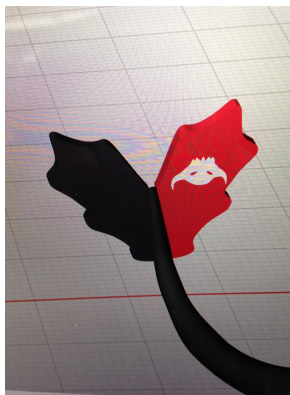
Week 5: I decided to finish the head by trying to figure out the ears and the bumps on his head. I was able to figure out the ear by tracing the top and side of the ear and using network surface. I did the same for the bumps (also using the front view) and mirrored them. I also added the nostrils, which was done by the command wire cut.

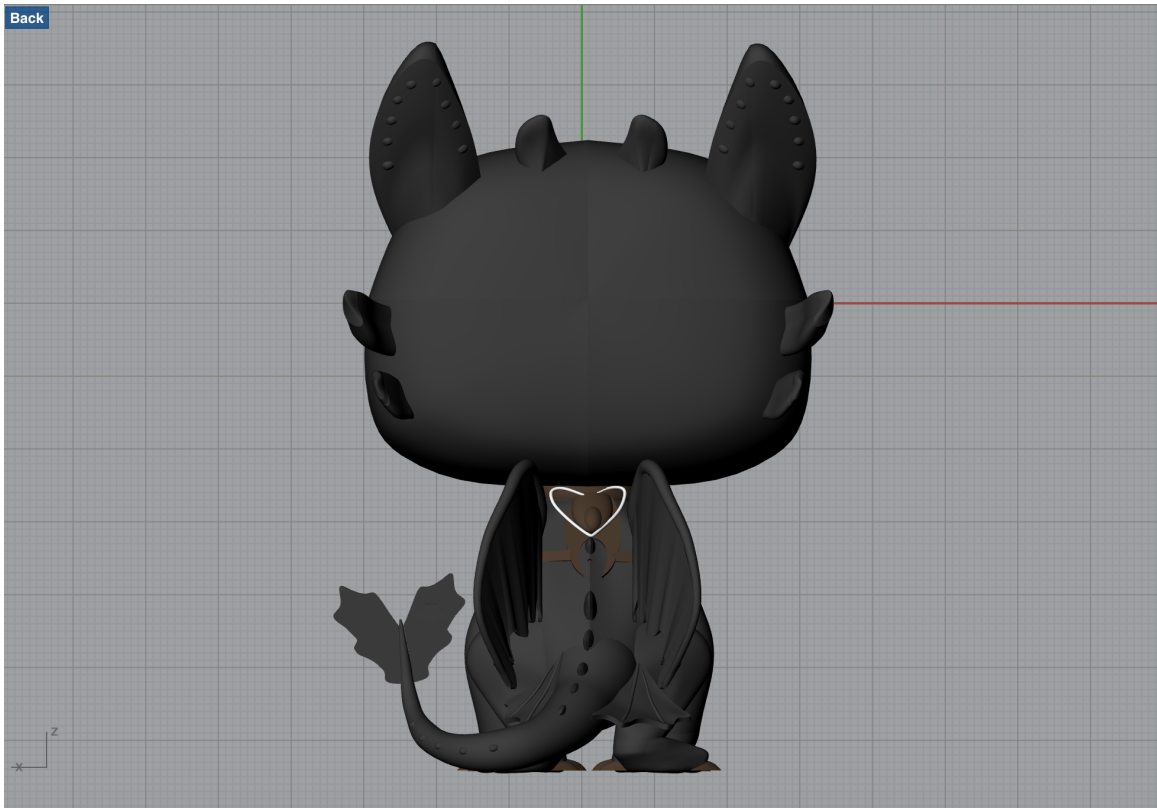


Week 6: I restarted my file so then my layers would be cleaner and to make the head more accurate and to try to have less gaps. My next attempt was the wing which was daunting to me and my partners. It was not too difficult to figure out but very time consuming to create. I drew the wing from the side view and the top view. Then I moved the control points of the side view to align with the top view. I used sweep2 to create the wing from the curved side view lines. I also modelled the neck using a circle and extruding the surface and the body using network surface. The hardest part has been learning rhino and getting off the ground. Especially for turning curves to surfaces.



Week 7: Now I am at the point where I feel I can create surfaces with some knowledge of what they may turn out like. I started on the tail and legs this week. The tail took a long time but it is my favorite part I have modelled. For the tail I drew it from multiple views to get the curve and then used that line to pipe it to the right curve and thickness. I added the symbol on his tail for fun (and for the future render). I started the legs and claws as well, which were all done with network surface. I finished the rest of the fins/ear things on the top of his head using the same method as before. I tried a new method also using network surface but by connecting two closed loops. This made the ears less harsh and boxy, but they also were more uneven. The last bit I decided to attempt was his harness, which I drew as planar surfaces and then I offset the surfaces. I also did the fins on the side of his tail by creating a planar surfaces, manipulating the control points to get the curve, and then I offset the curve for the thickness. I added ribs to it by piping curves along it. I also modelled a new wing which I did not end up using, where I lofted the back to make the wing appear more curved. However, it was much messier than my original method. I also started to tweak earlier things I had drawn (like the wings and ears) and made multiple versions using the methods I had learned from the entire process to get the best result.





(my favorite part of my model which shows most of the challenges)

Week 8: The tail would boolean to the body, but there would be a big hole. Although it said there were no naked edges, I ended up not booleaning them to avoid printer issues. I had the most issues with the last bits of the project. When exporting to tinkering suite, I got a mini version of toothless that I could not see, and the program was very laggy. I deleted extra layers, got rid of as many naked edges as possible and made a cleaner file which then imported into tinkering suite perfectly. Toothless was covered in support material but I wanted to print it as one file to avoid some of the issues other students were having. It took 4 hours and 50 minutes to print and it took a very long time to get all the support material off, and it was very delicate with translucent wings. Finally, my rendering software was not working which took awhile to troubleshoot and ended up just being a glitch which was solved by an updated version of keyshot posted on November 3rd. I rendered two final images, but preferred the moon shot, which was inspired by the movie poster. The one below is from a scene from the movie where I edited out a character to replace with my figure.

