For my personal CAD project, I chose to construct a space shuttle. Even though aerospace engineering is not my field of study, I am still very interested in space and its mystery. I figured that the space shuttle would be a challenge but also a fun object to build.

I based my shuttle off of the model in the image: the *Discovery*, the third of five orbiters from NASA’s Space Shuttle Program. The *Discovery* completed 39 launches and landings during its time, more spaceflights than any other spacecraft to date.

Most of my shuttle was made out of lofted, revolved, or extruded parts. I also learned how to draft parts, which helped me smooth the ends of the lateral wings to 90 degrees. The most difficult part of this project was trying to dimension the parts accurately. It was extremely challenging to manipulate the sketches in order to make a proportional space shuttle because I had to create my own guidelines as well as follow them. However, this was also my favorite part of the project because it gave me the freedom to create a space shuttle exactly how I wanted it to look, which was a luxury we didn’t have with the lamp and table project.

This project allowed me to get more comfortable with Solidworks by giving me the freedom to create whatever I want however I want. This helped me become more confident with CAD assemblies because I was able to learn new techniques and improve my previous weaknesses in the program.
The *Discovery*
