Personal Project Solid Works
Red Cartoon Airplane

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At the beginning of the project I focused my attention on looking for an object and idea that I really like and/or enjoy, and made it my ultimate goal for my SolidWorks personal project. My intended major is Aerospace Engineering, and even though my current knowledge and understanding about how airplanes and spacecraft function is minimum, I am very interesting on airplanes and other objects that are related to my intended major. Based on my interests, I decided to do an airplane for my personal project; out of the many options and types of airplanes I had to choose from, I chose a little Red Cartoon Airplane, which symbolizes both my love for the professional field, but reminds me of how I started to love airplanes when I was a little girl as well.

I started my project by drawing four different circles on the front plane in order to form the body of the plane. I contacted these circles and created a solid shape by using Loft; I created the front part of the plane by using drawing a smaller circle on the same plane, using Extruded Boss/base and Cut-Loft I created the propeller.

After having a basic shape of what the airplane’s body was going to be, my next step was to form the two main wings. I decided to use right plane and create a wing-shape drawing and attached it to both sides of the body of the plane. I arranged the size of the wings proportionality to the body of the plane and use Fillet to give them a better over-all look.

My next step was to work on the back of the plane and add the two little-back wings and tail. I was quite difficult to figure out the proper airplane in which I could add these two parts and it was somewhat complicated to draw them without affecting the previous drawings. Initially
the purpose was not to create the current of the tip and back-wings, but after trying some changes
by using Fillet I gave them that fine shape.

In order to give the plane a more realistic view, but yet to enhance the idea that plane was
an old-airplane, I decided to create a half-cockpit, and give it a glass view. I accomplished this
step by first using Extruded Cut in order to create the space for the pilot’s seat and the control-
board. After having the empty space I drew a circle in the font plane and use Revolve and Cut
Resolve to finalize the cockpit.

The final part of the plane was the two little wheel; I created these wheels by using Boss-
Extrude, so I could have material under the plane to hold the wheels and then I formed the wheel
by using a circle and Revolve.

The hardest part to complete was the half-cockpit. After trying to use spline and lofted
surface and obtaining a weird-looking part I decided to use finally use Revolve Cut.

I am not really good when working with Solid Works, but after starting the final project
and working on something I liked and enjoyed I learned not only how to work a little bit better
with the overall program, but I concluded that the program itself is great and that working with
it can be really fun. E-design 100 was my first class working with a program like Solid Works,
and even thought I didn’t really like it at the beginning the semester, I stated to find it more
interesting after learning about 3-D printing, and seeing the actual parts for our Lockheed Martin
Project, and after working on my personal project.

I hope I can use the skills I learned from solid works during this semester on future
courses, and hopefully learn more about the program.