Phoenix Reventon

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Engineering Design 100

May 5, 2015
Back in the day, I spent a large chunk of my life doing freestyle scootering. I got pretty into it and even made a YouTube channel with tutorials and edits of myself; I reached 2,500 subscribers and passed one million total upload views which was an accomplishment I am pretty proud of. The scooters can get pretty expensive since usually, at least back when I rode a lot, you have to buy each part individually if you want to have a decent scooter. The scooter I currently have costed somewhere close to $500. For my personal SolidWorks project for Engineering Design 100, I decided to model my scooter deck, which is probably the most core part of the scooter. It is called the Phoenix Reventon deck, and I designed the 4.65”x20.5” size, which is the one I have. I have the black version but you will see that I chose to color my model blue, this is because the details appear clearer with the color being blue compared to black. There is a blue version of the deck which I tried my best to match the color with.

The most difficult part of the project was probably choosing dimensions. The only dimensions that I was sure about that the top was 4.65” wide and 20.5” long, everything else I had to guess on based off of looking at a picture or looking at my scooter. Picking correct dimensions is pretty crucial because if you’re off a little bit the deck can look really awkward and sometimes it is hard to pinpoint exactly what the problem is. The most notable example of this was creating the two cutouts on the front of the deck; there are several aspects that need to be precise, and figuring out exactly what dimensions look best was not an easy task. Throughout the project I had to make a lot of angled reference planes, which I had not done before the project. The angles I chose were also critical to achieving a good appearance.

This project expanded my understanding of SolidWorks in a few ways. It was cool to see the program to be used on an application that I picked myself. Picking my own dimensions for
the project was a good exercise of judgement on relative sizing. Also, I never messed around with changing the colors in SolidWorks before and it was pretty challenging trying to make the color of my model match the deck as perfectly as possible.

Pictures:

My personal deck (left) versus my SolidWorks model (right)

My model deck (right) versus the blue Phoenix Reventon\textsuperscript{1} (left) that I was trying to mimic.
Other angles.