Camera Personal Project
Amanda Welch
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Figure 7: Camera assembly drawing with dimensions
I decided to make a camera because I have an interest in photography. I own the Nikon D5500, which is what I modeled my project after. To make my project I used various features to create the different components. I used extruded base, extruded cut, loft, wrap, emboss, mirror, fillet, and sketch picture.

The extruded base I used for the body of the camera, the lense, and the buttons. I used extruded cut for the glass of the lense, the hole to look into, and the screen’s display, and where it folds into in the body. I used a loft for the flash off the top of the camera and the little attachment nub where the screen connects to the body of the camera. I added the text “Nikon” by using the text feature and wrapping it onto the loft of the flash. I used to emboss feature for the text to make it pop out slightly. When creating the lense I used the mirror feature to make the curve around the edge reflect over the other side to make it even. I filleted most edges because the camera has curved edges. To add the picture of the Bernese Mountain Dog puppies, because who doesn't love puppies, I used to sketch picture feature to put it on the face of the camera’s screen display.

During my project I found the hardest part to be adding all the minute details. All the buttons had to be extruded just a little bit to be able to add color. Positioning them was tedious because you had to figure out the right measurement where it wasn’t obstructing another feature, but also placed correctly on the camera. In this project I learned the mirror tool, wrap, adding text, and adding an image onto a feature.

While working with SolidWorks I learned what a helpful application this is. You can create virtually anything on it. Beyond the personal project, people were using SolidWorks to prototype their trains for GE. We even used it to prototype our cell phone charger for our DEM project. SolidWorks is a very realistic way to model your ideas as well. When adding appearances, like metals and plastics, etc., you can actually test how durable these would be based on what you created. The various views, shadings, and displaying hidden lines, SolidWorks is able to show you a realistic model of what you design. Also, SolidWorks has basically any feature available to create exactly what you are looking for. SolidWorks was frustrating, but extremely useful, and fun to learn how to use.

http://www.nikonusa.com/en/Nikon-Products/Product/dslr-cameras/D5500.html?CID=SEM-

Q116-Google-Nikon- -DSLR- -Entry- -D5500