Solidworks Piano

http://www.dawsons.co.uk/media/catalog/product/cache/1/image/9df78eab33525d08d6e5f5b2713be95/y/a/yamaha_p121_upright_piano_polished_white_with_chrome_fittings.jpg
I chose this object, piano, because I originally wanted to play a piano in life however I chose the violin instead and when my sister picked up the piano I envied her however at home we were never able to get a piano. As such I wanted to make a piano that my sister would be proud to play.

To make this piano I needed to loft circles to make the legs. I also extruded the vast majority of it and filleted it to make a nice smooth curved edge such as for the bottom of the legs. I used a large amount of reference geometry, specifically planes so that then I could get different angles to complete the model and to help with the lofting. To make the absolute bottom of the piano I had to use a large amount of extruded cuts and extrudes to make the concentric circles within circles.

The hardest part of this model to complete was the piano keys as I had to get an accurate length for each of the keys and make sure that the note sequence was the same as an actual piano.

I learned that when trying to mirror objects they do not mirror fully unless the plane and the angle are fully defined. Also during circular patterning and the revolve boss/base a centerline needs to be clearly established. Finally I learned how to do CAD so that I would be able to make anything I desired.