Acoustic Guitar

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I chose to make an acoustic guitar for my personal project because I love music. I own, play a guitar and took lessons for a year or two. Singing and playing the guitar with my friends and sisters for a few church concerts was also really fun.

When making parts for my guitar, I used the Extruded Boss/Base feature to make the 2D drawings I made into 3D objects. I also used the Extruded Cut feature to remove the interior material of an object or make more precise shapes by cutting a piece of the object off. The Fillet feature was helpful when I wanted to round the edges of an object to give it a cleaner look. For the bottom of the body of the guitar, I used the Shell feature to give it a nice hollow inside of the guitar so the sound will produce nicely.

The hardest part of the guitar was the neck. I tried many different ways of completing the task. I tried putting a neck support inside of the guitar that connected to the actual neck, but I couldn’t find a way to do this well and create the curved part of the neck in the back. Next, I tried to loft the back curved part of the neck. I created two different planes with sketches and a guiding line. This worked only in the preview of the loft but not when I tried complete the task. Finally, I asked one of my TAs to help me and he was very helpful. He taught me how to use the new feature Boundary Boss/Base. The newest features I learned to
use were Dome, Boundary Boss/Base and 3D Sketches. I used the Dome feature to make caps for the tops of my guitar tuners. The 3D Sketches were useful so I could make a guided pathway so I could use the Boundary Boss/Base feature to make the curved back of the guitar neck. Last but not least, I could have never done very much without the best feature of all time: the Reference Geometry Planes.

Coming into this class, I had experience using another 3D modeling CAD program called "Autodesk Inventor". From this portion of the class, I learned how to use this new CAD program. This class taught me that making mistakes can make you really annoyed but in the end it made me grow and to not make the same mistakes again. It made me learn to problem solve better and figure out multiple ways to accomplish a task.
FIGURE 1 Acoustic Guitar

FIGURE 2 Drawing

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FIGURE 5 Neck