Personal CAD Project
“Acoustic Guitar”

By: Matt Jenkins
Summary and Synopsis

For my personal CAD project, I chose to create and design my own custom acoustic guitar. I have been playing the guitar for over seven years, and it is my favorite hobby. Throughout the project, I was able to express my creativity and technical skills in making my own unique design of an acoustic guitar. The creation of the guitar involved many steps and much problem solving. The design was strongly inspired by my own acoustic guitar with added enhancements, and was primarily achieved by using the extrude and extrude cut tools. I was able to sketch out the different parts of the guitar and extrude them upward. I also used many other tools such as the sweep command, to make the stings of the guitar, and the fillet tool, to add nice rounded and realistic edges. The guitar was constructed in a realistic way using two parts. I created the entire neck through design in one piece, and the guitar tuning knobs were screwed on in the assembly. Lastly, I chose materials that I personally would want on my guitar, such as a maple finish with a rosewood fret board. The frets are of polished chromium and the hardware consists of a polished nickel. I also used a shiny black plastic for various pieces, such as the pick guard and bridge. Overall, the creation of the guitar was fun and rewarding. It was truly outstanding to see the results of countless hours of hard work and motivation. Although I am on the path to be a civil engineer, I was still able to express my passion for guitars through this critical and intriguing project.

Top View
Guitar Tuning Knob
“Sketch dimensions not drawn to actual scale”
My Guitar (Inspiration for Design)