Snowboard with Bindings Design Project

Inspiration/Description

My project was inspired by my snowboard, although I initially tried to mimic its design I found that it was much harder than it looked. My bindings are nothing like the ones on my board and my board is about 40 percent similar to my board in real life. There are so many details that need to be accounted for in the solidworks model to create an accurate representation of my board that found were too difficult to replicate on solidworks. I did not have enough time to learn the features and manipulate the model as much as I need to develop and accurate representation of my board so I ended up using my board as a rough model for my solidworks project and branching off into my own imagination to what would be similar to my snowboard and bindings.

Overview of Project

o Why did you choose this particular object to model?
I choose to do a snowboard for my solidworks model because I am “in love” with snowboarding. Making a snowboard on solidworks was really a pleasure for me because i got to take something that I enjoy and take pride in form real life and make it in a virtual aspect. At first I did not know what I wanted to do for my solidworks project but as soon as I thought of a snowboard i knew that was exactly what I wanted to do.

o What SolidWorks features did you use to complete the project?
I used multiply features in solidworks to get to the final product that I have today. I used the lofting feature to make most of the surface/body of the board after lofting multiple elisples that I places in over 8 different planes. Then i used the flex feature to give the board a slight upturn at the nose and tail of the board, this allows the board to glide over snow when being used in reality. Then I used countless feature on the bindings such as lofting to make the back calf brace of the binding, 3-D sketching to make the “G” and “S” designs as well as the foot straps, extruding boss base to make the binding base plate, extruding cut to make the letter on the back calf support of the binding, fillet to round off all of the edges so there were no hard/90 degree edges and sweeping rails to also help in forming the straps.

o What was the hardest part of this model to complete?
The hardest part of the whole model was the designing and completion of the bindings. the bindings were/ are extremely difficult and required many tools and features to complete that all needed to work together. In all honesty the bindings are not even close to where I want them to be, they are appropriate and are as basic as bindings can get as, basically they will work in real life but they are not a fancy design like I would want they to be. There are so many features and tools that I was just finding out how to use and manipulate that I could have mastered if I had more time to complete the project. The final product of the bindings is fine and I am semi satisfied but I wish I had more time to learn how to use the features in the program to make the bindings more fancy and detailed like the ones you can find on the market today.

o What did you learn from the SolidWorks portion of the class?
I had previous design experience from using AutoCAD and Rhino at my highschool so I did not learn much on the design aspect but I learned on the assembly aspect and programing aspect. I learned how to assemble parts and make an appropriate drawing in the solidworks program as well as learning. Most of the learning done in the solidworks portion of the class was just learning how to use the features of solidworks and learning the ins and outs of the system.