For my Personal Solidworks Project this semester, I chose to work on a football helmet. My passions have always included sports and in regards to engineering, I have always loved to create new designs and/or color schemes for a variety of objects. I chose this idea because it would allow me to combine my passion for sports and design, while testing some of my skills. This project tested my abilities with Solidworks, while allowing me to work on something that I can fully enjoy. Being an absolute beginner and novice when it comes to Solidworks, I thought that this project would challenge me enough in its complexity while maintain possibility of completion based off of the skills I presently have. Normally, I just draw my design ideas on paper and for myself, but this project would allow me to present them a little more publicly and on Solidworks.

With this project, there were many aspects that became difficult for me, as I am not very experienced with the software; the main difficulty came when designing the facemask wire for the helmet. A new feature that really came in handy for this part was the “3D Sketch” feature. It allowed me to move into different planes within the drawing, but as it was so tedious, it still ended up taking two class periods and additional time outside of class. Overall, however, it did come together very nicely, in my opinion, as can be seen by the images present below.

This helmet is very loosely based off of any regular football helmets, but a little more specifically the Penn State helmet. There is no major change in design with the exception of the facemask wire being slightly more structured and defined for better protection. The major change comes in appearance design as I have changed the colors to incorporate more blue along with adding text stating “WE ARE PENN STATE” to promote our college’s team mentality. Overall I thoroughly enjoyed the project and hope you enjoy the design!
Isometric View of Helmet

Actual Football Helmet

http://www.dickssportinggoods.com/graphics/product_images/pDSP1-14643991p275w.jpg