Personal CAD Project: The PlayStation 2

By Matthew Dorshimer

The reason I picked a PlayStation 2 to create in SolidWorks is because it was a surprisingly large part of my life when I was in elementary school. Playing on the PlayStation 2 was one of my favorite things to do, with or without people. Many memorable moments were had playing games with friends and even my family. What’s truly astounding here is the effect a single object can have on a person’s childhood.

The most difficult part of this project was the text! The text on the top of the system took a long time to figure out. I thought it would be as simple as dragging the text to where I wanted it to be, but I was completely bewildered at how it actually worked. To solve the issue, I had to create a center line - movable x/y axis because the text would always lay on top of a line and as far to the left until it reaches another line. By creating an x/y axis out of two center lines, I was able to move the text wherever I wanted. It took a long time to figure that out in comparison to the other challenges I had while making this.

This object is related to my major, hobbies, and personal experience as it turns out. One of my main hobbies is playing games, and this is a PlayStation 2; a game system I played a tremendous amount of when I was a child. It’s directly related to my major of electrical engineering because of how it is made. There are many ways to optimize a gaming system, starting from the basics of organizing components within the system to the fine details within the central and graphics processing units.

I learned many things while doing this project. Along with refining all the basics of my CAD skills to a sharp point, I also learned how to create things in SolidWorks in a variety of different ways. SolidWorks can make drawing many similar shapes very easy if you use the correct tools. Instead of recreating the second controller port by hand, I simply mirrored it along an axis, saving me plenty of time. If I didn’t learn how to mirror sketches, I wouldn’t have completed this project as easily as I had.

SolidWorks is an extraordinary design tool. There were many things I noticed since I started the project. I learned that you can actually simulate real life situation using your model, and SolidWorks calculated exactly what would happen. Depending on the objects inert properties that you can define, SolidWorks can model how it would work when made. This is an incredibly powerful tool, because you can make things that would be too expensive to prototype and model how it would work.

The PlayStation 2 was modeled after this image (Figure 1), although it is not an exact replica.

http://s253.photobucket.com/user/fiberworker/media/Playstation%202/Playstation2front.jpg.html
Figure 1

- PlayStation 2 image that the SolidWorks model is based on
Figure 2

-Isometric view of the PlayStation 2 SolidWorks model

Figure 3

-Front View of the PlayStation 2 SolidWorks model
Figure 4

-Top view of the PlayStation 2 SolidWorks model
Figure 5

- Dimensioned multiview drawing of the PlayStation 2 SolidWorks model

*All Units in Inches*