

## Personal CAD Project

### Hookah

This CAD project is about an instrument or a device that is used to smoke tobacco, it is now famous all around the world. Each hookah can have its own unique design. In this project I did not use a certain picture to base my design on, I created one myself. Below is a picture of a typical hookah design.



Figure1: A picture of a hookah with all the parts named

Source: <http://myhookahpalace.com/how-to-use-a-hookah/>

At first, I did not really know what I should do for this project, I did not have any ideas for it. One time, I was hanging out with my friends, we went to Chronic Town located in the downtown of University Park, we usually go there to smoke hookah, when we got our order of hookahs, I looked at it and thought to myself that this could be a very good Idea for a personal CAD project, and so I chose hookah.

Making the hookah on solid works was not really a very hard thing to do as I already know what are the parts required to make a hookah, but one certain part which I thought would be easy turned out to be the hardest, when I was making the pipe stem, I decided to do it using lofts instead of revolving it, it was very hard because I have used more than 10 lofts which was

very confusing. Also, I had some troubles making the hookah hose as a sweep path. Both of these things were a challenge to make and assemble together.

I choose hookah because I have been using it for more than two years now, I enjoy using it, I usually smoke hookah during the weekends with friends. I also chose it because I already know what it is made of and everything required to make a hookah, which would make the task easier for me.

Solidworks has been a really entertaining experience, I would love to learn more about using it and making all kinds of things with it. The amazing thing about solid works is how precise and accurate it is, and how you can make many different parts and assemble them together in the end. The skills that I have learned from Solidworks might come very useful in the future, and I hope to use it because it is really enjoyable and exciting.

Below are pictures of my own hookah design.



Figure2: an isometric view of the hookah that shows the hose grommet and the Hookah hose clearly.

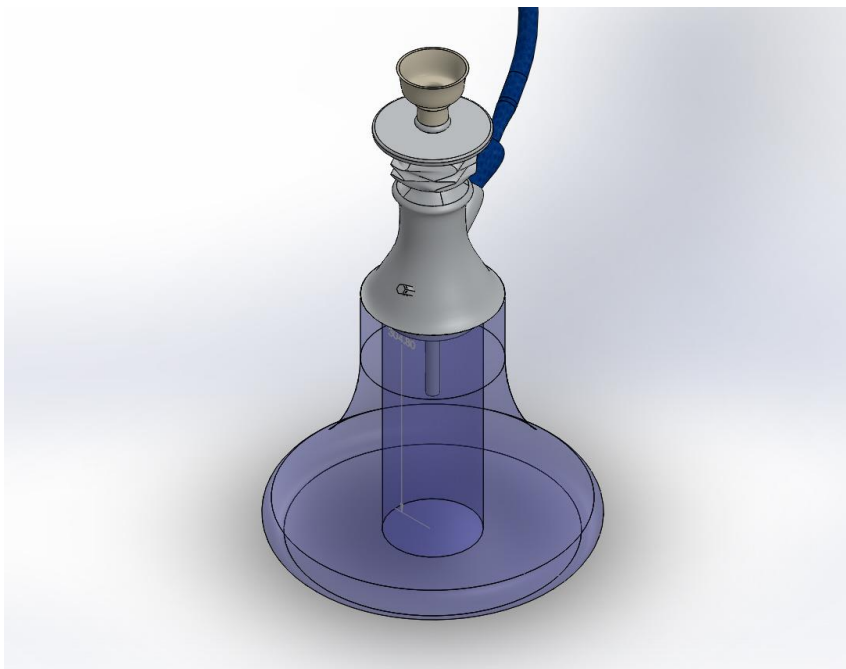


Figure3: an isometric view of the hookah that shows the air valve more clearly.

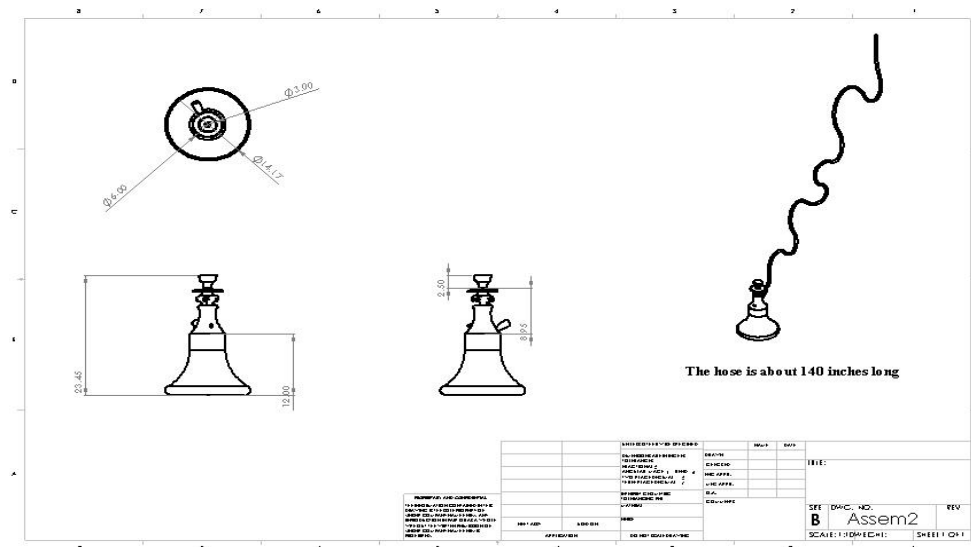


Figure4: a drawing of the hookah with front, top, right and isometric views, the hookah hose is about 140 inches long.