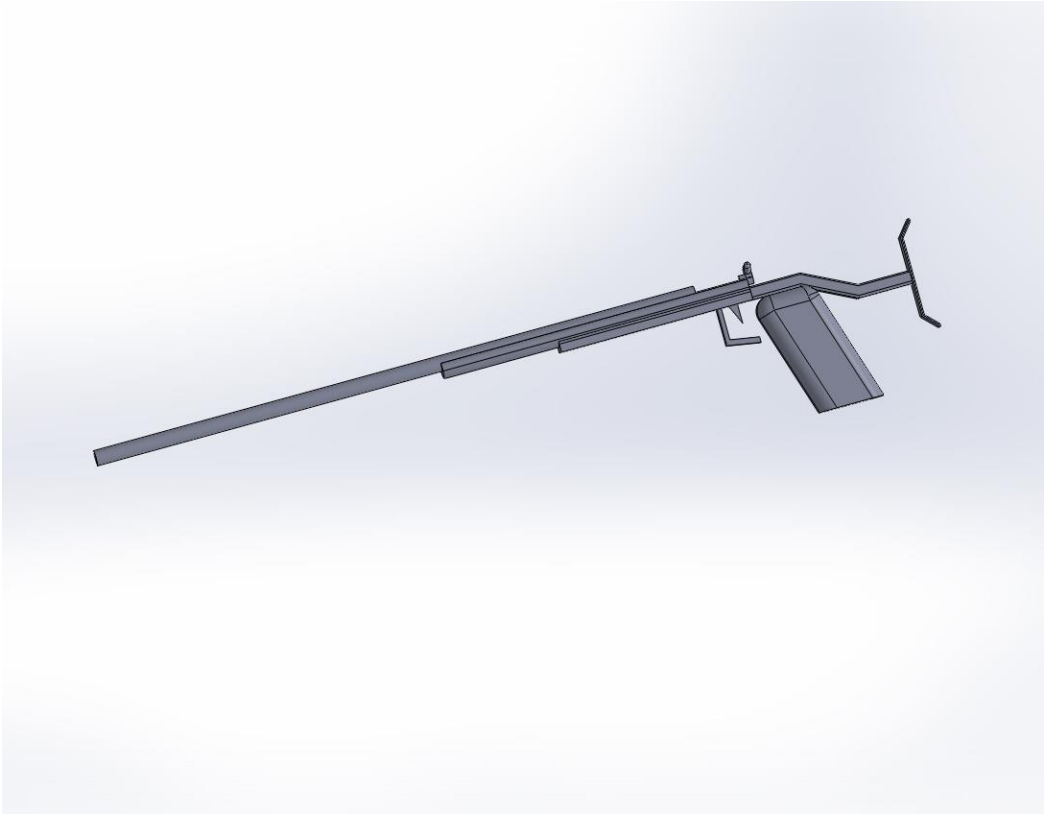
Lauren Thompson
EDSGN 100

.22 Air Rifle



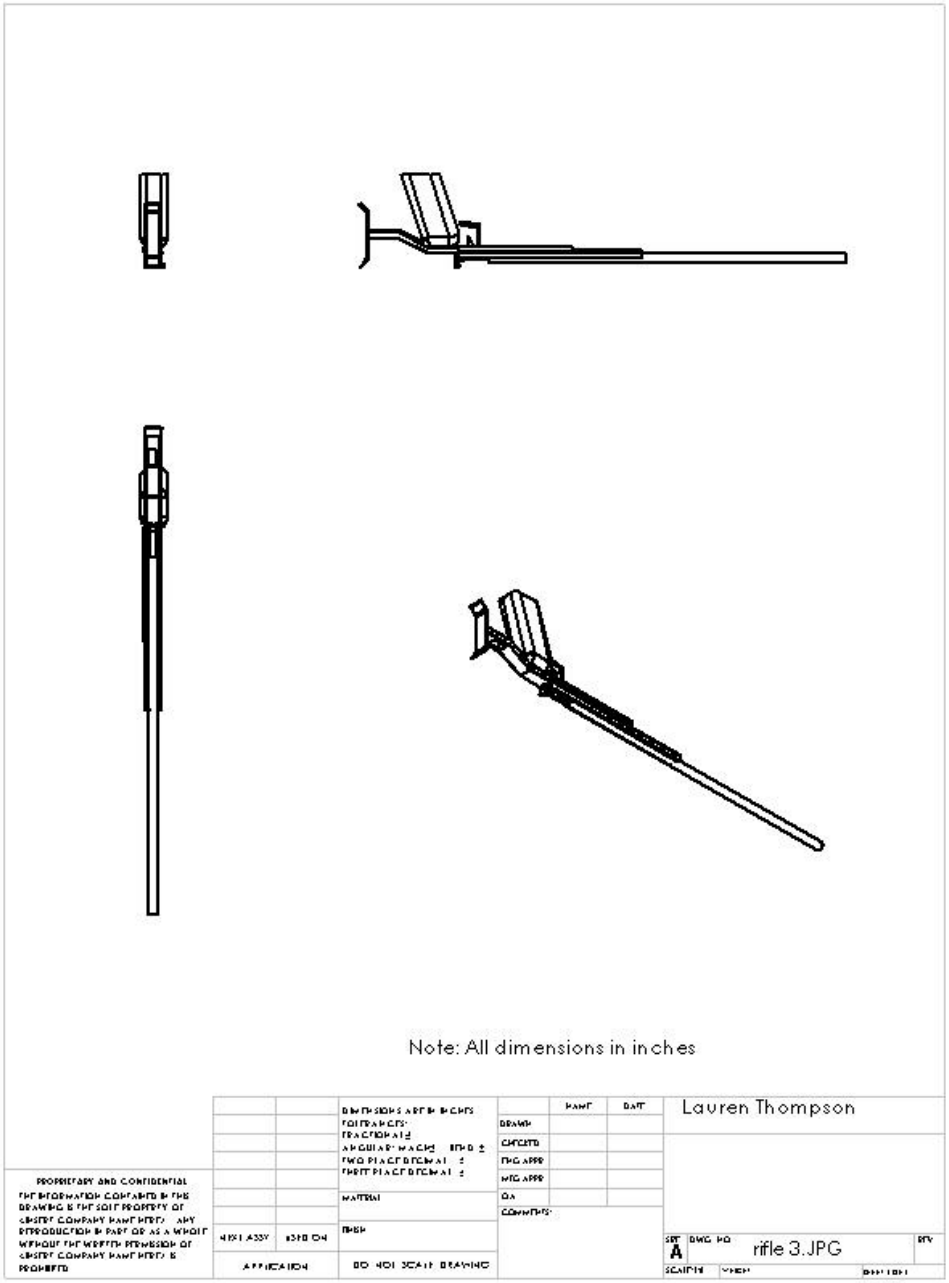
This rifle is an attempted replica of the air rifles I shoot for the Penn State team.

The air gun above is a newer model than the ones we shoot at practice; however, it is still quite similar. The air gun I created on SolidWorks is meant to be similar minus the blue air tank you see in the photo above. While the air gun I made is not a replica of the air guns we shoot, I did my best to get the most important features incorporated.

I choose to draw this air rifle of all possible objects because joining the Rifle Team was a very important part of my freshman year. My dad had taught me to shoot when I was 16 and ever

since then it has become an unbreakable bond between he and I. That being said, joining the rifle team here at school was just a great way to meet even more new students. Not only am I able to do something I enjoy (shooting rifle), but the people I was able to meet are great influences. Being a prospective engineering student, it is always nice to get prospective from 3rd or 4th year engineering students. That is something I get from rifle team. While the team is quite small (only about 7 people), half of them are engineers who always love to vent about their classes. They have become great people to look up to and they truly have impacted my first year here at Penn State. Not only do I have a new love for rifle shooting, new prospective on my future career, but also some great mentors for the future.

I have certainly learned a lot during the duration of this project. This project challenged me and nearly made me give up. I learned that objects that have many flat surfaces and many rounded surfaces that all need to be mated together can get very complex very quickly. I learned about advanced mates from our TA in order to make objects centered between two surface planes. This made the idea of symmetry very convenient and an easy reality. Beyond that, I was most challenged in figuring out how to make objects fixed when only mated to round surfaces. This took me hours to solve. Eventually, I was assisted by our TA to fix the planes to other planes rather than objects to objects. Overall, while this project was very challenging (even without all of the bells and whistles of a real air rifle), it was well worth while because I was able to learn quite a bit more about SolidWorks.


Note: All dimensions in inches
Lauren Thompson
rifle 3.JPG
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