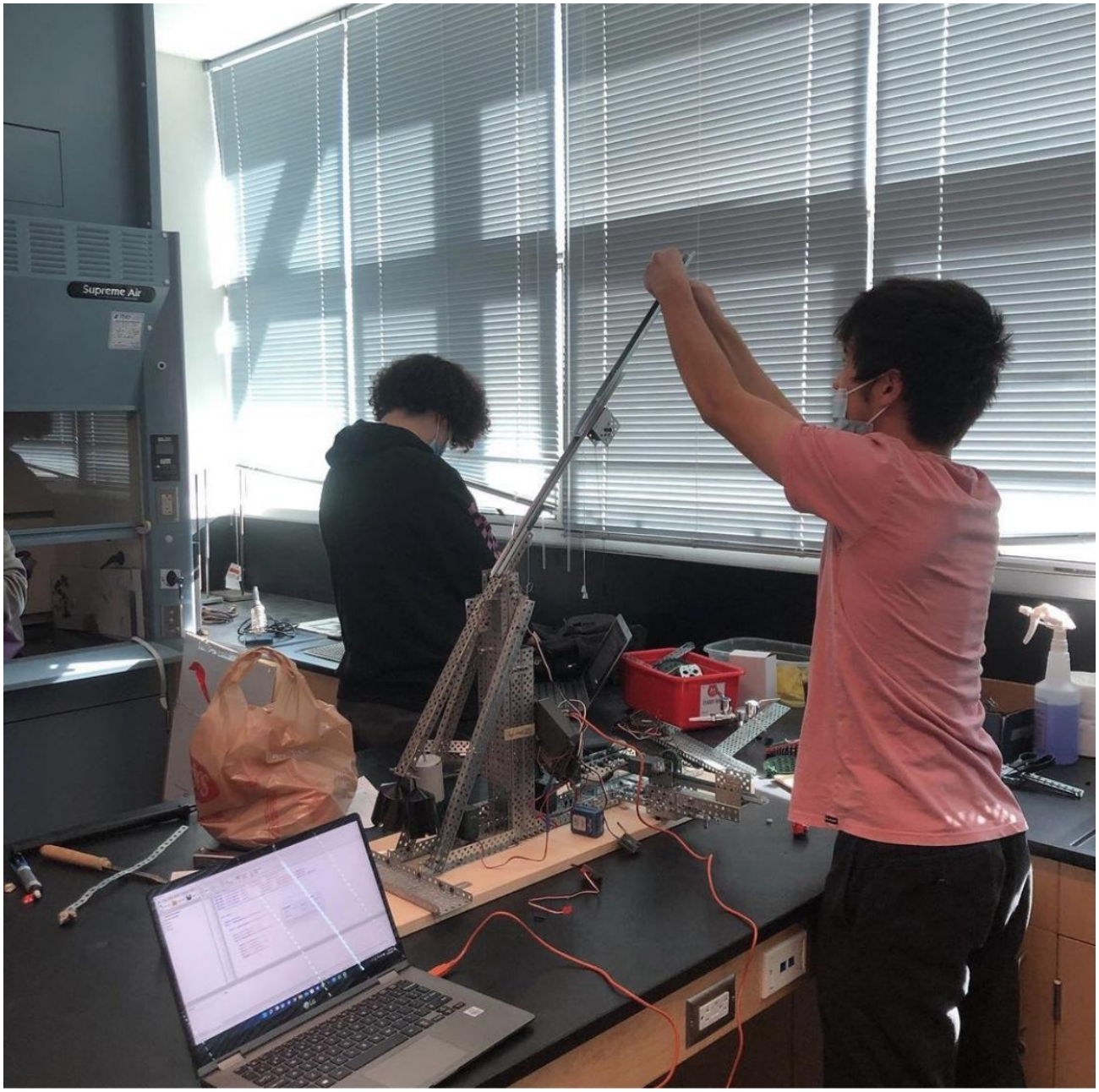
aHalloween Mini Project Individual Submissions

Directions: *Complete each of the following sections below. Each Person in the group needs to submit this document.*

Device Showcase (10 points- projects)

1. Take a video of your device during the October 29, 2021 Period 2 Halloween Showcase. Submit a link to this video below.
   IMG_2898.MOV

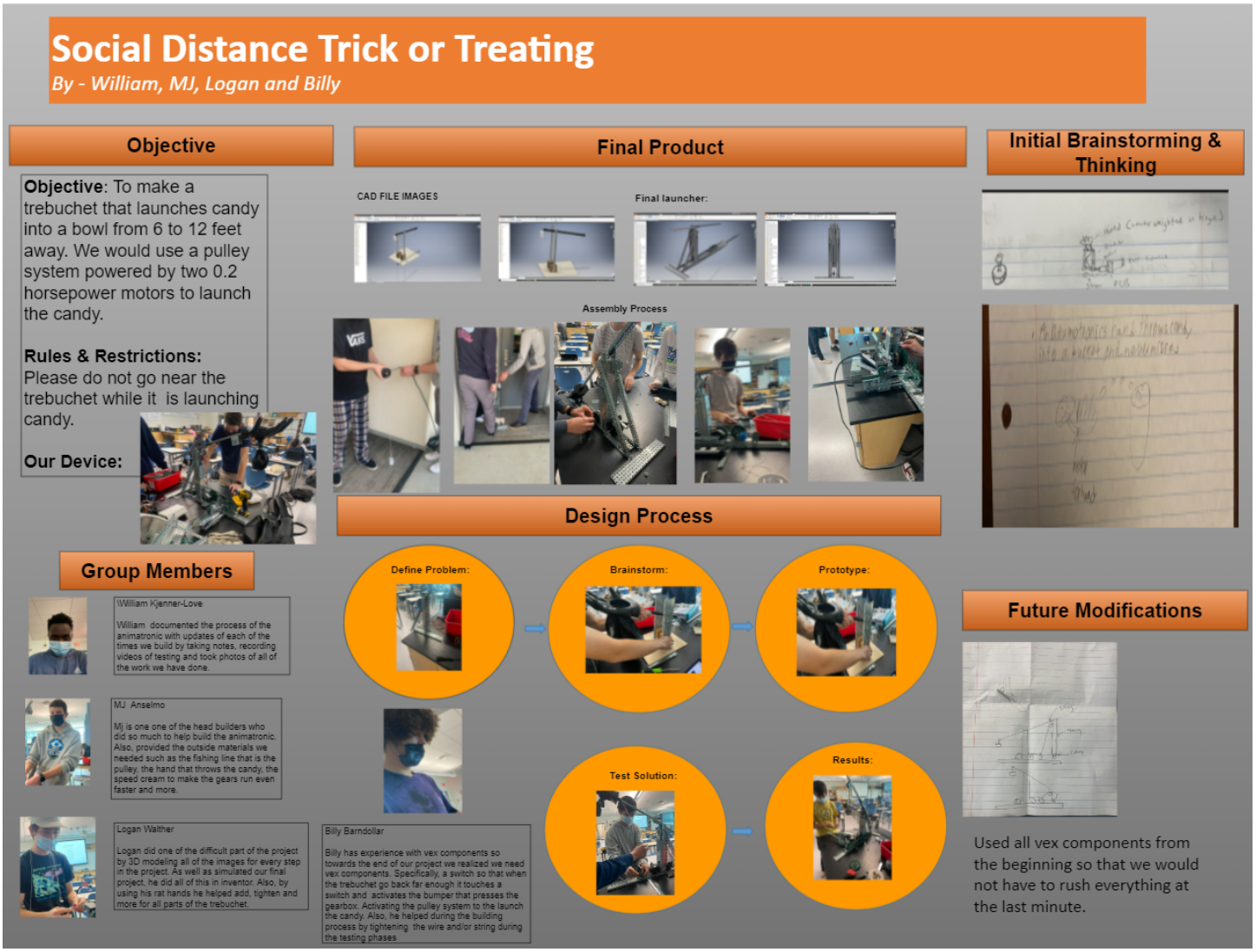
2. Take a picture of your device during the October 29, 2021 Period 2 Halloween Showcase. Insert a picture of this device below. Include a description of all of the components of your device.



What I was unable to model in inventor was the weights, wires, and vex cortex which can be seen in on the catapult. The cortex contains the necessary code to run the catapult and weights provide the force that launches the projectile. The code can be seen on the laptop.

Poster (50 points- projects)

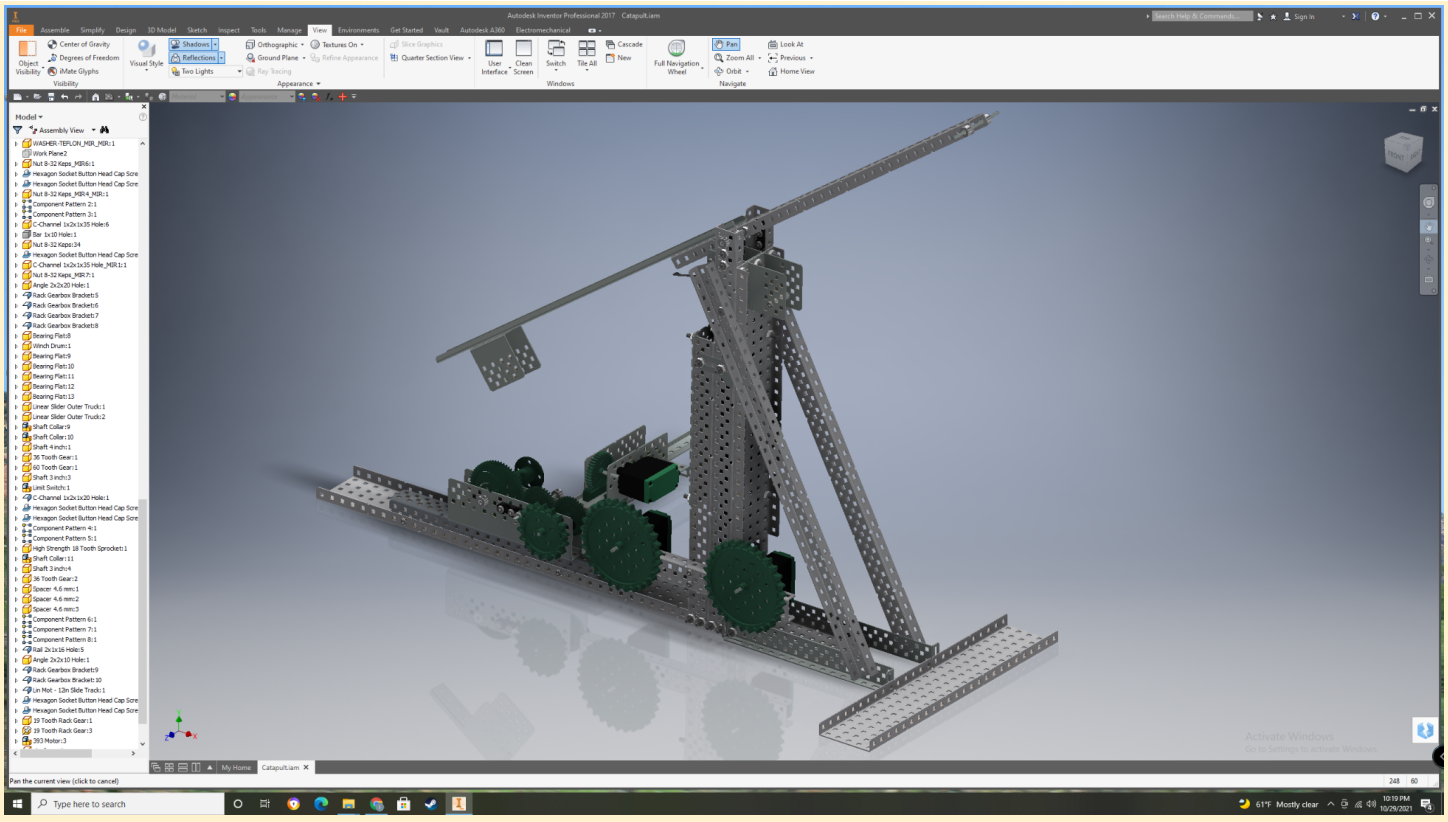
1. Insert a picture of your group's poster below.



2. Insert a link to your poster presentation below.
https://docs.google.com/presentation/d/18YyExHj7A80XgXmZOY0t7fycgkwkzU3jnGuBkvW9L_g/edit?usp=sharing

CAD File (10 points- projects)

1. Insert a picture of your group's CAD file below.



2. Include a description of all of the components of your device.

We chose a metal construction for extra strength. The gears are connected to the transfer to rotate the spindle and arm the catapult. A switch is triggered at a certain angle and the center gear in the gearbox is pushed in releasing the arm and the projectile on it.

Progress Documentation (20 points- presentations)

1. Insert a link to your group's presentation file (this should include the presentations that we previously did in class, and the updated progress until 10/29).
   https://docs.google.com/presentation/d/1ULqGqe39k2YY4AHYUb3ls6Nu0okBaWxd_3RlrxAahMs/edit?usp=sharing

Reflection & Evaluation (10 points- assignments)

1. **What contributions did you make throughout the past month for the Halloween project? Be specific and explain in detail.**

I provided the materials and computer as well as worked on the design for the trebuchet/catapult. Logan, Willy, and I were the three people who for the most part worked on the design and we all contributed to the contraption in both ideas and implementation. My main focus was streamlining the design and working out any kinks that were preventing us from moving forward, This allowed Willy and Logan to work on software and 3D models as well as William to focus on documentation. Lastly, I made the slides look pretty and presentable because I have a background in graphic design and this helped me to make the information easy to understand and pleasing to look at.

2. **How would you rate (out of 5) each of your group members? Please give specific examples to support your rating for each group member.**

I would give every member of the group a 5 out of 5 because we all contributed to the project and each member was vital to the success of the entire group. To start with Logan had previous experience working with Vex components so he was instrumental in knowing how to approach such a project. He also did all the work on the CAD files which saved us

a lot of time and effort because he had knowledge in that area. Willy was also a key player in our group because he had some of the best ideas that were very intuitive and simple and that made you wonder, “why didn’t we think of that?”. This included the original idea of the trebuchet and using weights instead of elastic to launch a projectile. Finally William documented every detail of our project daily and this allowed us to focus on building the contraption. Not only this but he took pictures of everything and imported them to the slides. William also was the person who made our poster. While I am proud of our final product, What I am most proud of is how our group was able to cohesively work together and focus on each other’s strengths. This taught me a lot about working within a team and engineering a real machine whilst also documenting and marketing it.