Final Engineering Exam

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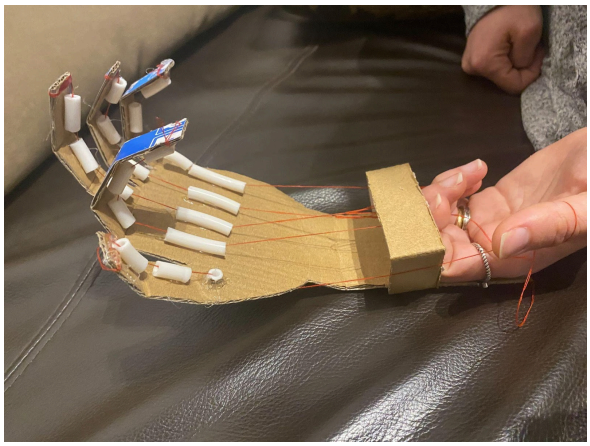
Throughout this year, we have done many projects and labs. Each project had its own pros and cons, but all of them were really fun. I enjoyed doing every single one of them. We learned about the different types of engineering through these projects. For example, we learned about reusable energy and how you can use engineering to invent new ways to save more energy and resources. All of the projects were very creative and fun, but my favorite was the prosthetic arm.

The prosthetic arm was my favorite because I really enjoyed doing it and put a lot of effort into it. Some of the challenges I faced while designing the arm were making sure that the finger joints were flexible and strong enough. My initial prototype was to have the strings attached directly to the fingers and then have someone tug on them to make them move, but I realized the joints would not properly move when I did that, so I decided to add the white wire to each part of the finger. Another thing I modified about my project, along with the string and joints, is the wristband band and finger holes. I made the finger holes so that I could slide my own fingers inside them and tug on the rope so that the prostatic fingers would move. My second prototype worked better because it made pulling on the strings easier and made the finger joints stronger. For this project, I used mechanical and biomedical engineering. I used mechanical principles like identifying the problem first, and then I spent a great deal of time getting the right materials I needed for this project. I learned a lot from this investigation. I learned more about engineering and how it feels to actually design a prosthetic arm using mechanical engineering. I learned more terms, such as biomedical engineering, which means using engineering techniques in the world of biology.

I have attached a couple of pictures below:



In conclusion I really enjoyed all the projects we did throughout the semester and learned a lot of new interesting things. They were all very creative and simple. I really enjoyed making the prosthetic arm and the solar oven especially. It was very interesting and fun to get the chance to be exposed to all the different types of engineering.