

# 2024 VRC Career Readiness Online Challenge

1104D



Brampton Robotics  
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- Which STEM career or company did you select, and why?

I have selected mechanical engineering because it is one of the most studied and applied fields of engineering. They have demand across the globe and are fundamental to the functioning of our modern society. These engineers are involved in a wide range of industries, including automotive, aerospace, energy, manufacturing, and robotics

- What resources did you find to learn about professionals in this career or company and how they use the engineering design process?

We have used multiple resources, one of the primary ones being youtube. This is because it has copious amounts of content about mechanical engineers and what they do. Along with that wikipedia and career explorer have also been consulted.

- How do professionals in this career or company apply steps of the engineering design process?

First they identify a problem which someone has presented to them. Then they define parameters which need to be met in order to fulfill that request. After that they brainstorm and start to think about possible solutions and how they may or may not work. Later on they prototype with these ideas. Finally they prototype and pick the best solution, refine it and then present it to the person who wanted that product.

- How does the professional approach to engineering design match or differ from the approach used by your team?

We use an almost identical process when it comes to our practice on the robotics team. However we are constantly prototyping and we never have an end goal. Our goal is to make our robot better at all times. Along with that we don't have to ask for a product, we are just trying to build a more competitive robot so that we can win the competitions we play in.

- How has participation in VEX Robotics prepared you for a future career?

Greatly because it has taught us engineering skills and practical application of their academic learning of math and physics, data analytics, programming, team collaboration, leadership, decision making, stress management, time management, creativity, conflict resolution