

Career Readiness

ROBOTICS

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Introduction

Custom Interiors

1. Which stem career or company did you select and why? Our team chose the company, Custom Interiors, because they use a lot of engineering design processes throughout their daily job. Our team chose this company because one of our team members dad works there. And so they have heard stories of how they use the engineering design process and how it works, we also hear how efficient it is.

Research

2. What resources did you find to learn about the professionals in this career or company? How do they use the engineering design Process?

They first make a prototype, then they test it out, and last they find solutions to any problems. They will ask what the customer wants changed or fixed and then start thinking of ways that they could fix it. Then they test it to see if it works. If it doesn't they will think of new ideas. Some of the things they do include cutting shower doors, putting up shelving, installing door locks and mirrors, laying flooring, and installing cabinet doors. Once all problems are solved, they install the final design.

Their design process

3. How did professionals in his career company apply steps into the engineering design process?

They research computer programs that help them calculate the measurements. They have to remodel houses so they must get the blueprints and the measurements so they can build or add what they need to. They also need to get the right materials for the job.

Comparison

4. How do professionals approach the engineering design process match or differ from the approach to buy your team. They create a prototype measuring 10 days takes to temperate the glass. For them to test it to make sure it works and if it doesn't work they remeasure it then go back cut it a little to make it fit .If they have a problem they go back to the plan and see what the problem was. What we do is when we have a problem with the robot we go back to our journal and look at our plan and see where we made the mistake . For research Custom interiors use a computer app to calculate measurements .We use an app called Cad to help us see before we start building. For prototype custom interiors use a wood door.We use a blueprint on paper or on our computer.For test and evaluate Custom interiors installs a glass door and sells it with silicone and ask the homeowner to test it.We use practice match matches and game strategy.For improvements custom interior adds more silicone and improves the hardware and shower door water repellent.We adjust our build and or add more parts like motors, weights, or change the gear ratio

Engineering design process	Custom Interiors	Team 36250E Robotics
Research	Computer program	Cad
Prototype	Wood door	Blueprint on paper
Test and Eval	Instal glass door seal and ask homeowner to test door	Practice matches and game strategy
Improvements	Add more silicon and improve the hardwear add shower door water repellent	Adjust our builds and or add parts like motors,weights, or change the gear ratio

What we gained

5 . How does this participant in the Vex robotics prepare you for a future career in robotics .

We've learned how to engineer. We learned how to do the engineering design process and how to work together as a team and to problem solve and understand how to fix things and to understand the problem. When we made our 1st prototype we ran into a problem with the scoring mechanism and we had to understand the problem and rethink the way we scored. We decided to build a different claw to score and it worked. We could score 75 by ourselves. This is team 36250E from Alexandria Middle School Alexandria, Alabama .



Photos