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Career Readiness Submission By Nick

Sources/Citing

https://en.wikipedia.org/wiki/Textile_manufacturing
https://in.indeed.com/career-advice/career-development/what-is-textile-engineering
https://www.indeed.com/career-advice/career-development/what-is-textile-engineering

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

I have chosen a textile engineer as they are a less known engineer that is crucial to our modern day economy and way of living. Textile engineers are incharge of finding ways to create types of fabrics, fibers, and yarn into things like curtains, blankets, and any type of fabric that you find in your everyday life. They also figure out how they can mass produce these goods in factories all around the world.Textile engineers focus in Textile manufacturing. It is largely based on the conversion of fiber into yarn, then yarn into fabric. These are then dyed or printed, fabricated into cloth which is then converted into useful goods such as clothing, household items, upholstery and various industrial and fashion products.

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

I learned alot from online websites from Indeed to Wikipedia. I learned about how different processes can transform cotton to yarn and the challenges they face as one machine feeds into another and they all have to function properly or the whole factory will be affected. There is little to no margin for error. They use the engineering design process which is ask, research, imagine, plan, create, test, and improve.

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

They use the engineering design process on a daily basis not only to create more machines to manufacture clothing and more, but also to troubleshoot and solve malfunctions in the machines. They have typical duties that can include quality control, process engineering, production control, technical documentation, planning, research and development, marketing, and overseeing various types of equipment and processes used to produce fibers, fabrics, and yarns. These daily duties use the engineering design process like quality control. They first have to figure out what they are checking for like durability ,color quality, imperfections and alot more.

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

Their approach is very similar to our team's approach to this year's challenge. Both start by figuring out what the challenge is and what we need to do to be successful. They might have to figure out what ways can they automate shirts the fastest to require less workers or how can we make sure there are less malfunctions in the machines. Our team is trying to figure out what the best way to tackle one dispenser and apply that to our robot. We do that to all the dispensers and then create a robot that can collect the disks and score them to the best of our ability.

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

VEX Robotics has helped me learn a lot about how my brain works, may it be teamwork or problem solving, I have learned a lot. For example I learned how to brainstorm and work together with a team with a set deadline which can be helpful for future jobs I may have. Like say an assignment is due by Friday I will be able to figure out how I can best manage my time in order to complete that task. VEX has also helped me with problem solving challenges with other people. Being able to work with other people while under a deadline can ~~sometimes,~~ most of the time be very stressful. It can sometimes lead to verbal fights. You need to know how to work together, like give everybody a task and work through it. Like one person has journaling someones coding and someones doing measurements for autonomous. Overall VEX is very good for building skills for life and future careers/ jobs.