

Robotics Career Challenge

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When I first heard of the Career Readiness Online Challenge, I instantly made a connection with Bosch. I first thought of this because my grandpa, Bryan Heinz, who had just retired as a mechanical engineer who worked on car, SUV, and truck braking systems. My grandpa was very helpful and gave me some of his engineering and design process steps that he used when working to assist me and my partner with this. As I was looking through a sample of Bosch's engineering and design process he gave me, I highlighted a few things that stuck out to me and compared them to what we do here at North-Wood Middle School Robotics.

The first step that is taken at Bosch is to gather all the requirements and regulations for what they are going to make and record it online so everybody who is working on that same thing can easily see. This is very similar to us reading the rules for the new game at the beginning of the season and writing them in our Documentation Notebook. After a few more steps, Bosch uses a software that allows you to draw parts in 3D to show their progress and what they want their finished product to be, which is comparable to how we either draw or take pictures of our robot and compare it to others' robots. Later, they run over this process again to record changes, similar is what we do. About halfway through the process, they make sure the dimensions of the thing they engineered meets the requirements. This is like how we, at practices and competitions, make sure our robot meets size standards. The second to last step for Bosch is to do trial runs of their product. This is like when we practice driving and programming on our robot. Lastly, Bosch starts the production of what they engineered. This is comparable to us bringing our robots to competitions.

I think VEX Robotics has helped to prepare me for my future job in many ways. One way that really sticks out to me is my skills in working with people I do not know or that are hard to work with. The only reason a Robotics team would be successful is because that team can collaborate to reach a goal, along with plentiful hours of work together. This, in my opinion, is an important skill for not only a future career, but also generally for all of life.

When working at a job, you are not just working on your own all the time. For example, if you are a teacher, you collaborate with other teachers, and you would be constantly working with many different and unique children. If you are a veterinarian, you work with the receptionists to know when your next appointment is, and what kind of animal you are working with. You also work with the nurses and pet owners to know the reason for the animal's visit and its health history. VEX Robotics can help with any engineering career because you learn about and practice the engineering and design

process and you have had practice working with people making something new that can reach a common goal.

In conclusion, real-life engineering companies use a similar engineering and design process compared to what we use in VEX Robotics. This practice from a young age will help us later in life when we are trying to find a job, and when we are working on one, especially if it is an engineering job.

Credits:

Bryan Heinz – Career Challenge Information

Riley Davidhizar – Writing Paper

Peyten Disher – Editing Paper

Bosch – Engineering & Design Process Info