Career Readiness Online Challenge

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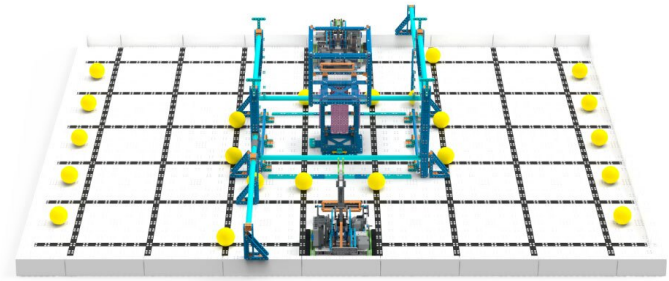
My name is Lasya Voonna, and my team (Arushi Wadhivkar, Isha Chaudhary) and I are participating in the 2021-22 Vex IQ challenge game “Pitching In”. The STEM career that I have chosen is phone design in Samsung. I selected this career because it uses a similar design process to what we are using in Vex IQ. In Samsung when they design phones they use the following steps:

1. Define the problem
2. Conduct research
3. Brainstorm and conceptualize
4. Create a prototype
5. Build and market your productProduct analysis
6. Improve

First, they must define the problem which they are trying to solve. They will have to keep in mind how competitors may have already addressed the problem. Questions might be “What are the main goals of the project?” or “How will you measure success?”. After discussing the problem the team must conduct research. They would research competitors and similar projects, so there is an improvement in their product. They would research ideas to make a better product and understand the scope of the market asking them questions like “Why would a user choose this product?” or “How often does a user use this product?” to know what kind of ideas they can add to their product. Next, the team must brainstorm and compare their ideas for the product. They will have to find out what features are best for the product. After that, the team must create a prototype or model of the product. Through this process, the team will find out areas in which they can improve on and the flaws. As soon as the model has finished the team can finalize the

product. When the product is finished it will be ready to show to the public and prepare for the next step, which is product analysis. In this step the professionals will begin to evaluate and learn about what the product accomplished. They will receive user feedback which is important so that they can make improvements to their design. Finally, the last step is to improve, the team must make any needed improvements to their product based on the users' feedback. The steps of the design process that professionals use in Samsung when making phones is similar to the design process that my team uses in Vex IQ. In the Vex IQ design process we follow these steps:

1. Define the problem
2. Research
3. Develop Ideas
4. Choose Best Idea
5. Build Prototype
6. Test
7. Make Improvements
8. Communicate Results



To begin, we define the problem which in this case is the Vex IQ game "Pitching In". In this game we are trying to get as many balls as we can into a basket to score points. After we find out what our problem is we will have to research what kind of robots others are building and how we can make our robot score more points and be more efficient. Then, we develop ideas we have on building the robots and in the next step "Choose Best idea" we will identify which idea we think would be able to score the most points. We will then build our prototype based on our idea and see if we need to fix anything. Later, we will test the robot and see if it is scoring points well and then make any improvements that are needed. Last of all, we will communicate the results

which might lead to a new problem that needs to be solved and we will go back to the first step. The design process that Samsung uses to create phones and the design process that my team uses in Vex IQ have many similarities. They are similar because both have similar steps when we need to define a problem, research about it, build and test, and make improvements. The product that they are making in Samsung is similar to the robot we are making in Vex IQ. There are competitors in Vex IQ and in business so in both design processes we must research about it to make a greater design. Participation in Vex IQ has prepared me for a future career because I have learned many of the skills needed for it. I have acquired skills such as learning to build, test, and improve a design in Vex IQ. I have also learned how to look at competitors designs to better my product and work with a team to discuss and brainstorm ideas. The skills that I have gotten from Vex IQ helped me prepare for my future career.

References

- https://www.indeed.com/career-advice/career-development/design-process