

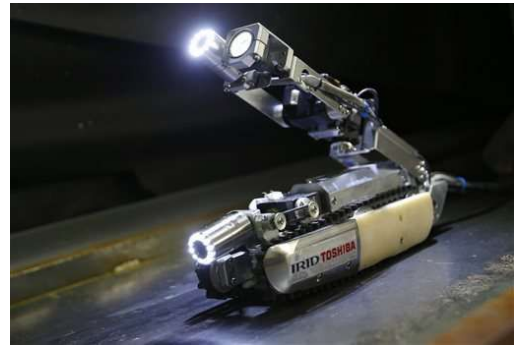
10142A Is Ready For The Next Day!

Created By: Green Tigers Team 10142A

Science, technology, engineering, and math are important for many jobs. STEM is made up of these four subjects. One career that uses these subjects is a robotics engineer. We chose a robotics engineer because the idea of doing robotics for a career and getting paid to build robots to help people sounds really cool! We also use a lot of STEM in VEX IQ robotics that will help us in many careers including robotics engineers.

Robotics Engineering is an important career, because robots will be needed in the future. Robots will be able to do dangerous things for humans. We think some diseases will be so deadly that humans can't be near the sick. Robots would be able to work with the sick people because they won't get the disease. Robots can also do some jobs that could be too expensive for humans to do, for example exploring space. This would be too expensive for humans because humans would have to build space shuttles and have enough food for the trip. Robots don't need food, which would be less expensive. Robots can also do things that would be more efficient and waste less time. For example, Amazon Prime Air is a company that sends packages up to five pounds through drones, which is a lot more efficient than humans delivering it by planes and trucks. Peter Corke thinks that, "They will definitely get smarter, better able to see and understand what's around them, recognize people, what they're doing, how they're feeling. They will get much better at working with people."

The person who inspires us is Peter Corke, an Australian Robotist (a person who designs, builds, and programs robots). Peter Corke went to the University of Melbourne and got a Bachelors of



This is a picture of Toshiba's Scorpion robot that will look in the Fukushima Nuclear Reactor. It is too dangerous for a human to go because of lots of radiation.



This is Peter Corke, the inspiration for us.

Engineering, a Masters of Engineering, and a PhD. Peter Corke is still working at the University of Technology, even though he is 61. He is interested in flying robots, and is famous for online education and Visual Servoing, which is Vision Based Robot Control, or a robot which basically can see. The way Peter Corke made robots see is he added a camera to the robot. He made this robot in 2004.

We think what Peter Corke does is interesting and exciting. Robots that can see what's in front of them and make a decision is going to be important. Vision robotics will help us in the near future because cars that deliver and transport people and goods can sometimes get in car accidents. Cars running by themselves can drive faster and less people will get hurt. This may be achieved in the future because scientists are trying to find a way to make automated cars by using sensors to make cars drive themselves.



This is a picture of Peter Corke with one of his robot friends.

We emailed Peter Corke and asked him some questions. One question we asked was what he attributes to his success and his answer was, "Curiosity, willing to learn new things, talking to lots of people, not watching television, working hard." We have learned some of these skills in competitive robotics, which are: able to work with a team, compromise, and not argue all the time. We think it will help us later on in life for when we get a job.

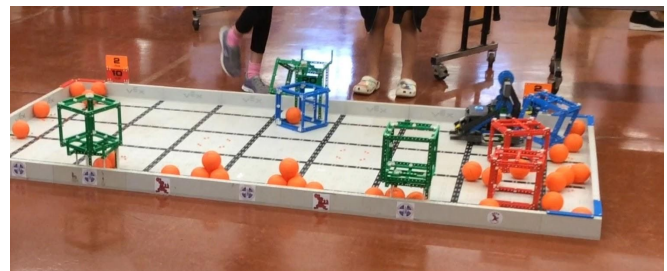
When we asked Peter Corke what skills he thinks you will need in order to be successful in robotics, he said "Math is very important. Pay attention to algebra, trigonometry and calculus in high school. Math is one of humanity's greatest inventions and really useful. Don't be scared of it, it is your friend. Study physics



This is a picture of what robots are estimated to look like in ten years.

in high school as well. And learn to code, any language is good because the principles are the same in any language. But aim to get up to speed with Python in coming years.” In programming, we must use math. We need to exactly calculate the distance the robot needs to travel to succeed. This is my first year of programming after being a main driver last year. I wanted to try something new this year. This is not new just for me though, my other team member used to use robotC but now we are using vexcode.

Competitive robotics teaches us many different life skills. One skill is perseverance. We learned this by experiencing failures and mistakes. Sometimes our lift fails, and we need to work on it even if it is hard to fix. Also if our program is close to working but it doesn't quite work correctly, we can't just leave it like that and not make it our best. Perseverance helps us realize that not everything we do will be successful and you just have to keep going forward. For example, when some of our team qualified to Worlds last year, we felt accomplished and felt good. Then Worlds was cancelled and we felt disappointed that we had accomplished a very big milestone and we didn't get to go further. We decided to persevere and do robotics this year and try to get to Worlds again.



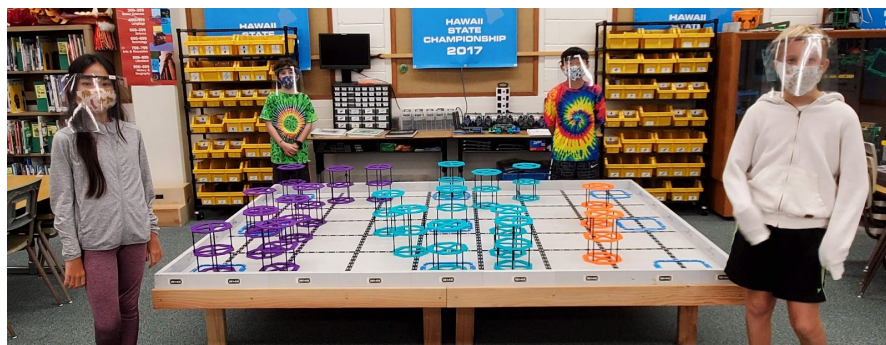
This is our team in a tournament, we are doing a skills match and we are driving

We also learned that you have to deal with the stress and what time management is. We have to use our time wisely and responsibly. We have many things we need to do everyday. We could program, drive, document, or build. We only meet for a few hours each week so we have to decide what needs to be done before tournaments or leagues. When we have to work on certain tasks, it can be stressful to make sure you do everything well. For example, when you do online challenges, it is stressful to do the essay or video and know if you did it well. We learned that we need to manage our time well because our team has so much to do and finish but there isn't much time to do it all.



Due to COVID-19 we can't interact or work with each other. Even if we can't be with each other, we can still do robotics and make it work.

Robotics has taught us to be flexible. Making changes might not be the easiest thing for you but you're doing what's best for your team. For example, because of the Covid-19 virus, we have to work online, and if we meet in person we sit at different tables. This is difficult because when you're building you have no help from anyone, and you don't know if your part will match with your other teammates parts. However, we are flexible about this by still building our parts, even if we encounter many problems. We also needed to be flexible because we needed to switch roles from the one we wanted. We changed so our team could be more successful. Also, sometimes some of us have internet problems, or struggle getting into the meeting. Then they miss the meeting and we have to email them about what happened. We get things done by focusing a lot on online challenges and building our robot, and not playing games. The way we get things done is: Priority before Play!



We need to be flexible because of covid

Competitive robotics helps us realize how important STEM is going to be in the future. Peter Corke is a big inspiration to us because he works hard, perseveres, and is now very successful. What better place to learn than VEX IQ robotics? VEX IQ helps us practice STEM skills for our future careers. Now 10142A is ready for the next day!

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Image Citations

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