38X: The Avengers (Yeah...I know)

What comes to your mind when you think of the phrase “Female empowerment?” 38X, or *The Avengers*, our team name, is an all-girls eighth grade VEX robotics team and the only one of its kind in our school, Cranbrook. As one of the youngest teams around in VEX and additionally an only female group, we often have to work harder than others (It’s a hard knock life). Being selected by other teams is not an acceptable option for us, we always strive to be, at the very least, in the top eight teams so that we are what is called a “picking team.” Winning isn’t everything, but it’s *pretty important*. The only goal that 38X has is to be the best, not second, not third, but number *one*, while maintaining as much integrity as possible (Robotics is a very honorable *sport*, didn’t you know?).

 38X consists of six people: Ishu Kudapa, Helen Qin, Nikita Shishu, Maryam Khan, Nicole Schmidt, and Alysa Shi. Alysa and Nicole are efficient programmers (Yeah, Robot C is *extremely* difficult to learn, definitely). In addition, Maryam, Nicole, and Nikita drive in competitions. Helen and Ishu are the main writers and vividly describe our experiences during robotics sessions. Nikita also assists with our extra projects. Ishu is the scout (collects information on all the teams, *very* important when you are a picking team) and Helen assists as well as organizing a combined and completed team list with all the scouting information. We also enjoy many different activities such as basketball, tennis, swimming, ice hockey, long walks on the beach, what everyone enjoys really. Everybody on the team plays a vital role to our success and we work hard to win, but those long walks on the beach really do help.

 While the whole spiel about being a girl in robotics means it’s more difficult is true, our main challenges are the same obstacles everyone else faces: designing, building, and programming. For designs we often look at the designs of other teams to draw inspiration from, like Van Gogh when he creepily stared at a woman with an *interesting* smile, to say the least. We see a variety of robots at competitions and when we are designing and building we work with high schoolers of all ages, which allows us to draw on them as a resource (See what I did there with saying draw? It’s because I said Van Gogh… never mind…). We have learned many things from this so-called “design” process such as how to build on our teammates’ ideas, to occasionally build a sort of prototype, to ask others for help but to do the work ourselves (even if we do wish that the robot would just magically appear completely built and in perfect working condition), etc. Building the robot is what most in robotics would consider the easiest part, contrary to popular belief. Once you lay out a detailed plan, just follow it step by step and you’ll get a phenomenal robot...yeah...no. Though it may seem easy in your head or on paper, often there are many difficulties and obstacles that you face in robotics that you cannot account for beforehand, but that’s where the ability to be diagnostic and systematically problem solve come in handy (Big words, I know! Impressed yet?).

 More often than not, you cannot fix these last minute problems that abruptly arise, which is difficult to face at a competition. Failure occurs but that’s life (Hey! We’re most certainly *not* quoting some self-help book out there) and it’s alright. We learn from our mistakes and trust me we’ve made many, like seriously, a *lot*. Not winning on the first or even second try makes you appreciate the wins that much more. Although, on second thought it would have been *pretty nice* to just to succeed at our first competition so that we would have more time to evolve our robot and ourselves as a team, also winning, hello!

 Another important part of having a great team is communication. It’s important to know how often everyone can come to practice sessions. We have multiple communicating systems, so everyone knows what is going on, including the app Slack which is where we update all other Cranbrook VEX members and have Google Docs sheets for uploading our scouting information so that the whole Cranbrook VEX community can benefit from each others’ information. Teamwork is also highly important as communication is only part of the “key to success.” If there is no cooperation among team members then you will most likely not win. It’s difficult to express how essential this is in order for your team to attain a favorable outcome. While teachers may always say,”Don’t sit with your friends! We don’t want you to talk to each other!,” in this case we say sit next to your friends, and do talk to each other.

 Robotics has been a life-changing activity. I mean, giving up four hours of a Sunday, really? Without robotics, our eyes would not have been opened to so many great careers in STEM fields. For example, Alysa wants to work in the biotech research industry and Ishu wants to be an aeronautical engineer. It’s shown us lots of different opportunities are out there for us, even if it means that to grasp those opportunities we have to give up of four hours of our precious Sunday and other weekdays every week (OK, so maybe I’m a little salty about that).

 Overall, robotics has been a great experience. Every member of 38X, excluding Helen and Alysa, have had previous robotics experience in VEX IQ, allowing us to operate comfortably within the boundaries of VEX. Throughout our robotics journey we have lost many, many, *many* times but we’ve also always talked with each other, communicated well, and exemplified teamwork. As of right now, December 16th, we have qualified for regionals and eagerly wait for the chance to advance to states. 38X says, “Peace out!!!

Credits:

Team 38X

Alysa Shi, Maryam Khan, Ishu Kudapa, Helen Qin, Nikita Shishu, Nicole Schmidt

Girl Power Online Challenge