

## Visioning Empowerment as Xenas

By Saanvi Agarwal, Ashita Singh, and Charmaine Lui (Team 97101W)

Team 97101W is a team that was not supposed to have existed. Born out of the gender disparities in robotics at American High School, it was just a rough plan about a year ago until a few dedicated students transformed a rough idea into a team, in a week.

Our team began in late 2019 after our sister team, Team 97101G held their second tryouts. At the time, the VEX program at our school was just getting reinstated. We were, and still are, the only fully female lead robotics program in our entire school, even with many programs in the Engineering and Tech field. Unexpectedly, the tryouts yielded a large number of talented female candidates. So our current captain approached the already established team and their advisor about starting a second team. Due to a series of misunderstandings, our captain started the team alone with the advisor, leaving the first team unaware. Within a week, she got all the parts of the robot from her previous team, found mentors, and put together the foundations for a new VEX team. Seeing the initiative and passion our captain had put in, the original team allowed the development of the second. Our first obstacle had passed but many more were to come.



Frankly, our team stumbled through its first season, but that didn't deter us. Most of us were competing for the first time without many resources, and with a variety of backgrounds and viewpoints in both engineering and design. The differing perspectives, although a source of multiple conflicts, allowed us to create a multifaceted robot in the sense that it was capable of fighting through various, never-thought-of problems. Through the process of building the robot, collaborating on designs, and actually getting our robot moving, we built a decent bot that served as an extension of our ever-increasing bond.

We already had our passion for robotics to connect us, but adding on to that was the exploration of the variety of discrimination in race and gender. Some of us had grown up here in the heart of Silicon Valley, where every ethnicity could be found in an office building. Other of us had grown up in much more conservative areas, where students made science projects in an attempt to prove that boys are smarter than girls. One aspect that truly connected us all was our mothers. All of us had working mothers with the majority in the STEM fields, from computer science to biomedical to mathematics. These women had largely inspired and pushed us to enter the robotics field. They were our role models for pursuing the STEM field. Another aspect that strengthened our bonds was the support we offered each other for problems, especially prominent was the mocking we received. There were multiple students who claimed it was much easier to get onto the girls' team or snidely whispered about the weakness and inexperience of

our team. Having a team could turn those negative remarks into determination in the midst of adrenaline-fueled competitions.

However, it should be noted that our team didn't magically come together. There were moments of solidarity that formed from sharing hours each week over the course of nearly a year. Staying up the entire night of our first competition from both nerves and fixing last-minute problems, while stress-eating banana muffins. Being scolded by our advisor when we forgot to eat during competitions (She is quite terrifying when she's being mother-like). Then there were also sarcastic barbs and sleep-deprived crude comments. We disagreed often on the oddest topics. We made fun of each other, possibly a little too much. We also got ourselves into trouble sometimes. But we learned more about each other, and ironically, ended up closer through these moments.



One notable accident took place when one of our builders decided to walk to our captain's house for our meeting. It wasn't too dark, but on her way there, a man started following her. She grabbed her phone and pretended to talk to someone loudly while running to the house. When she arrived, she began furiously knocking on the garage door and we let her in immediately. Even though we closed the garage door, we were all completely petrified.

While we laughed off the incident relatively quickly, there was something about it that sticks even a year later. We wonder why we were so quick to assume the worst. Why we felt so unsafe. Why the incident didn't seem to faze us. Perhaps it was then that this gap of gender was made so apparent, so obviously shoved into our faces. That night, we may have victimized ourselves, seeing ourselves as lesser compared to our male counterparts. That incident should have decreased our morale, made us worry, but it just boosted our desire to continue our work--to show that girls can succeed in Engineering (or STEM in general). That we are not scared.

Changing the world is difficult.

Changing oneself is easy.

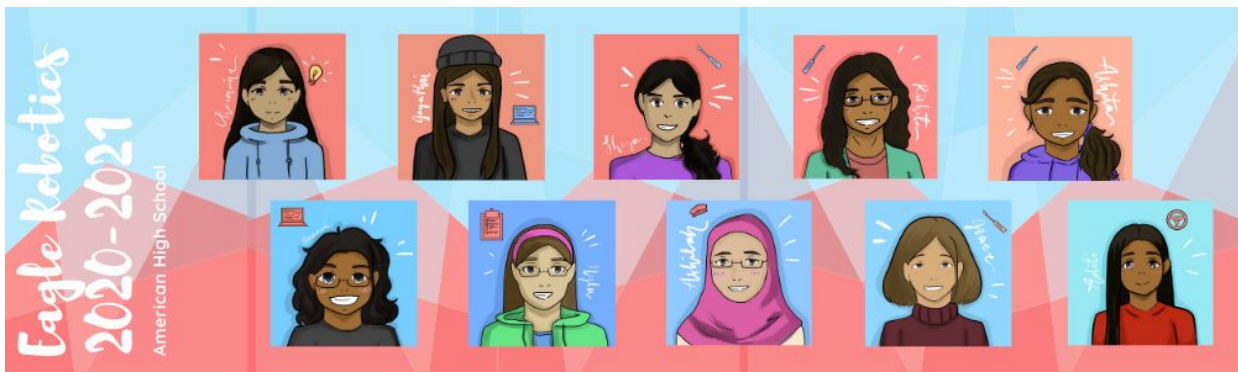
Never let be said that Team 97101W takes the easy way out. So we began changing what we could. We offered waivers to students who couldn't pay the team fees. We ran classes at schools to create more inclusive environments. Many of our members became more involved with volunteer work.

But we did more than give back to our community. In a completely unintentional method, we became a source of inspiration. Our team consists of diverse and unconventional people. We

support a variety of religions, cultures, and never give in to discrimination. While we do break the stem restrictions on females, we also break other conformities.

We have top academic students in the form of our builders and strategists who can both draw amazing and accurate portraits and calculate the gear ratios and IM values, incorporating the STEM classes from school into our team. We have builders who greatly enjoy the more childish shows and can read and sing fluidly, but also are jocks who participate in rugged water polo and soccer. We have programmers who adore history and philosophy but also excel in leadership skills. We have team managers who once hated robotics, but now are the leaders of our team and often bake on the sidelines.

The strength of our team comes from this diversity--the same diversity that served as an apparent division when we started working together. We have a sense of unity, but we differ in perspective. We have had members with bare minimum engineering experience, who are insanely creative. We have members who are of various cultures and religions. Many of us have parents in the computer science field, who have immigrated here and are rather traditional in their thought processes. Others of us completely grew up here in America and aren't all too connected to their culture. The experiences that we all bring ultimately create our team's functions. We use the strengths of each person. Someone who is more rigid to the conventions like one of our builders keeps us in check about the rules and practices. Someone more flexible helps us stand out amongst our competitors.



This translates into life. By having this diversity, we encourage the females in our school to pursue STEM. We've had more STEM programs for coding, engineering, and science begin since our time as a team. Sometimes, teachers call upon us to showcase this strength in classes and seminars. Our advisor often uses us as role models in her classes to encourage more girls to participate in STEM. It's one of the legacies that we can be most proud of, but the best part of our diversity is the connection.

This sisterhood that we've developed from late-night discussions on racism in some of our favorite films to mashing up various songs in an attempt to recreate a karaoke game is the best and most powerful part of our team. We have an advisor who is one of our greatest role models. We have a sister team who is always willing to lend a hand. We have members who always give it their all and are never disheartened by a loss. We have builders who have managed to continue their work in the midst of a pandemic. We have a driver who trusts her

teammates to always make sure the robot is ready for her. We have programmers and strategists who work for hours trying to first find every possible route, then refining them to find the best possible route. We have team managers who raise the money, organize our matches, and support every aspect. We have a team that focuses both on the competition and a community. Our strength, our girl power, is not the robot, the members, or even the school. Our girl power is the bonds, the opportunity, the legacy that we created in a week and have been aiming to sustain.

Team 97101W is a definition of girl power.

