

Carl Hayden High School, Falcon Robotics Team 842 Chairman's Submission

Hello, my name is Cruz Garcia and I am nineteen years old. I attended Carl Hayden High School all four years of my high school career and I wanted to be a part of something extraordinary. I wanted to be a part of something bigger than myself. I did not know what that would be until I found the Falcon Robotics Team. I do have to mention that unlike other high school students I have a few special things that make me sort of unique. I have Duchenne Muscular Dystrophy. It's a condition that causes severe muscle weakness and functional disability and also results in a loss of the ability to walk. My limbs are slowly being drawn inward and becoming fixed in a certain position. This is called contracture. I did have one part of my body that I could control accurately which was my thumb. I used it to control the electric wheelchair that I used to get around school. My doctors say that my lifespan is very much in question. Some say that I may have a year left to live, so you can see why I want to make the most of the time I have left.

In my search to be a part of the normal high school experience and to find something I could be a part of that was bigger than myself, I took a full schedule my freshman year. One of the classes I took was Mr. Lajvardi's Introduction to Marine Science class, which is how I first met Mr. Lajvardi. The room next to the marine science classroom was called the 'Robot Room' where I saw many students come in and out of to talk to Mr. Lajvardi. I had always been interested in technology and building and when Mr. Lajvardi introduced himself as the coach for the robotics team, I was intrigued. I began to ask questions because I was interested in what all the commotion was. What was all this talk about robotics?

After having witnessed the robotics team from across the hall for a year I joined the team my sophomore year and signed up for the Science Seminar class also known as the Robotics Class. Mr. Lajvardi and the team made me feel very comfortable and took me in like I was just one of the guys. Even though I physically could not do anything and my experiences were not as advanced as the others on the team, they took the time to explain everything they were doing and made me feel like part of the team. I was able to witness the process of astonishing ideas bouncing back and forth. Everyone would get completely exhausted both physically and emotionally, but they loved it! The energy was intense as STEM literally surrounded me. Unfortunately, I could only listen and cheer on, but I enjoyed every second of it.

Despite the fact that I could not physically do anything, they made me feel as if I played an important role in the team. They helped me realize how hardships and struggles can present you with exceptional opportunities. They showed me how the future consists of major technology advancements and it is better to get involved as much as you can as early as you can. Robotics is that push that allows you to experience and taste the future. Young students with dreams are willing to put in the time and effort to utilize and develop skills in order to solve problems in a fun and exciting way. It helped me realize that everyone can have a rewarding future. It is all a matter of choices one is willing to make. Are you willing to put in the time? Are you not afraid to get involved? Honestly, I can say I was afraid at first but once I got involved I felt as if I took a big step for myself. My confidence and my self-esteem boosted and I felt like I belonged. I was a part of a magnificent club, with such a great legacy. It was an honor to be involved with this group and it helped me in my life in such dynamic ways.

When I went home, I had something to talk about with my parents. I had experiences to share, just like any other teenager. My father would ask me, "How did school go?" I would proudly reply, "Great, the team was able to make the robot kick the soccer ball!" I learned that it was okay to jump in. Learning and helping is always an option on the robotics team. Physically I was not able to do much of

anything but I sure was able to learn.

I see team members getting prepared for their future. I see multiple opportunities being offered. I have witnessed team members receive job offers from large corporations, such as Intel, who wanted them as part time employees to work on robotics projects for them. It is because they learned such extensive skills at such an early age through FRC competitions, and they have the experience that any company could want. I have also witnessed the team put on Lego robotics tournaments for grade school kids. They want to share the fun and excitement that STEM can bring to young kids as it has done to themselves. They understand Dean Kamen's vision that we need to affect the minds of young people in such a way that we draw the best minds in this country to go into the science and technology fields and that means starting at a young age. The team even holds events for the general public that promote STEM. Every year they hold the science and technology festival in conjunction with the Arizona State Science Festival. People from all over the neighborhood are invited to come on campus and see all kinds of STEM exhibits. The exhibitors are a wide variety of scientific and technological companies that want to help increase public awareness of what they do. One of the exhibits I like best is the Tesla Cars. These are all electric cars that are very nice looking and very fast! The best part is that they are all electric, just like my wheel chair. I wish I could get them to make one that I could operate with my thumb. I would like to drive a Tesla!

FIRST, For Inspiration and Recognition of Science and Technology is the robotics organization that Team 842 Falcon Robotics belongs to. FIRST has a mission

“ to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership”

While I have a harder time doing this than typical teenagers, I do my best to do my part by supporting the team in any way I can. I want them to know that they have my heart and soul behind them. I spread the mission of FIRST every chance I get. It does catch people off guard that I am on the robotics team, but once I start talking about it, their surprise melts away and they are just listening to another kid that excited about robotics!

I see what the kids on the team get out of their involvement with FIRST. Mr. Lajvardi and all the other mentors demand that each member show initiative, creativity and responsibility. The mentors push each kid to do better than O.K. or even better than their parents expect of them. In our neighborhood, getting by has become common place and I can't live with that. Mr. Lajvardi asked me once why I wanted to go to school despite my limited time here on this Earth. He asked why I did not want to go and do other things with the little time I had left. I told him that I believed that bettering myself makes me a better person and the will to fight and take advantage of the abilities I did have made me feel more complete and human. This is why I think I was drawn to the robotics team. I saw the drive of the team to be the best they can be regardless of their station in life. The mentors have encouraged many students to take control of their education and understand that what happens to them is up to them. The mentors also encourage creativity and experimentation to find solutions to seemingly impossible problems. FIRST has taught all the team members and myself valuable skills that will last a lifetime.

Since I joined the team they have won three regionals! I would like to think it was because me, but I can't take credit for that. It was a team effort. The team is trying for their fourth win and I hope they make it, but it really doesn't matter though because just by being in FIRST the students are all winning. Most if not all of the students go on to college or the military. Many of the students go on to

engineering others go the science and medical fields. For a school like Carl Hayden, that is big! I can give you an example of one of my teammates and how it impacted him. Aaron Ruiz would always take the time to explain the what was going on. He would explain the steps, procedures, plans and schedules and the current events that are going on with the team. Aaron told me, "The reason why I want to become an Aerospace Engineer is that technology is advancing so quickly that it is getting to a point that space traveling will start becoming common and want to be ready to do my part. Unmanned vehicles have gained popularity over the few years that I have been involved with it, and that is exciting. By obtaining my degree this will set a new and high milestone for my family and myself."

On a personal note, my team has made me feel special by noticing me and including me despite my limitations. Team 842 made it possible for me to attend my senior year prom. I was able to enjoy the dance and experience an American tradition, like any other high school student. I feel that this collaboration between me and my team would not exist if not for the values of gracious professionalism and co-operation that are part of FIRST's culture. It's this stewardship of people helping people that overrides the current everyone is out for themselves mentality that is all too present in the world today.