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# Gainesville, VA

# Vex Robotics Team 1489A

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A Vex Story

I am in the 8th grade at Bull Run middle School. I always strive to do my best and to be the best that I can become. I have all A's on my report card every semester because of this. My strengths are in Mathematics and Science. I love to use my imagination to see what great ideas I can come up with. I enjoy riding my dirt bike and mowing my neighbor's lawns. I often swim in my backyard swimming pool in the summer. I also build igloos and and go sledding whenever it snows. I have always found interest in taking things such as remote controlled airplanes apart. I love to discover what goes on inside of things and find out exactly how they function. Then, of course, I put them back together exactly as they were.

I have always admired all things mechanical. I like to make electric circuits with my circuit set, build pinewood derby cars (I have won 1st place in several events), fix toys for my siblings, tweak my friend's bicycles to make them work better, help my dad work on his cars, and repair our antique lawn tractors.

At the start of the school year in 2012, when I first started 7th grade, I joined the Robotics Club at my school. My instructor is Erin Stanton, the head of Bull Run Robotics. She placed me on Team 1489D as a Builder with Amr Metwally(Leader), Michael Kelly(Programmer), Everett Michel(Builder), Sydney King, and Allie Curran(Engineering Notebook). We worked well together as a team. Within about three months, we had a working robot. We began to make improvements to the robot, notebook, and programs at that time. We shortened the base of the robot by about 6 inches to make room for the arm of the robot to reach the ground and not be exceeding 18 inches at the same time. We also improved the scoop that we used to pick up the sacks in the Sack Attack game by installing a large piece of poly-carbonate to replace the original metal plates.

By December of 2012, it was time for competition! We were the only team from our school that was able to go to the competition due to the fact that we were the only ones done with our robot. Although we lost every one of our matches, it felt great to have a functioning robot built in a fairly short amount of time. We took some time to fix our programs and make minor adjustments to the robot. Finally, January came and we attended a competition at the Potomac school in McLean, Virginia. We won five of six matches. We made it to the quarterfinals but were eliminated. Later that day, we received the Excellence, Design, and Sportsmanship Awards. After having the robot fall over backwards in the January competition, we found a solution to keep the robot from falling over. We also programmed the robot to score up to 15 points during Autonomous every match. We kept testing it until it was perfect. It worked perfectly 9 times out of 10. In February, we went to Gainesville Middle School for our third competition. We won every single match and were crowned Tournament Champions. We received the Excellence, and Design Awards too. It was quite a great experience. In March of 2013, we travelled to Gar-Field High School to compete in the PWCS Roboticon. We won half of our matches, but once again became Tournament Champions. By then we had qualified for the Vex Robotics World Championships five times (The design award at the January competition did not qualify us for some reason).

In April of 2013, my team and I flew to Anaheim California to compete in the Vex World Championships. While driving the robot with Everett in Anaheim, we managed to win half of our matches and we placed 39th in the Spirit Division. Our team came home with the Judge's Award because of our great posters and explanations when we interacted with the judges. In the end, we had earned 8 awards in one year. We discovered that the keys to success are organization, focus, and development, and balance.

This year, I am on team 1489A and we have built a working robot and have been to two competitions. We built a robot that can score points in almost every way(Score in the Cylinders, De-score, score large balls, etc.). We travelled to Woodbridge, VA for a competition in December. We won half of our matches. We were Tournament Champions with our fellow Bull Run team, 1489B, and we won the design award. We will all travel to the state competition in Richmond, VA, sometime in February.

Vex has helped me to be able to develop my ideas into things that can fulfill certain objectives. It has helped me to better understand how the center of balance on robots and other things can affect how well it works. Vex has inspired me to be more creative and not just use basic ideas, but to think outside the box to solve problems.

Because of the experiences I have had with Vex, I want to study Mechanical Engineering at Virginia Tech when I am older. I want to grow up to be a Mechanical Engineer. I believe that Mechanical Engineering is a good option because I can put my talents to use while doing something I enjoy. Vex has introduced to me that doing my best brings great rewards.

Vex Robotics means a lot to me. To compete in the competitions, you must devote a lot of time and energy. You have to be either in or out with Vex. I chose to be in so I am going all the way and doing my best! I stay after school on Mondays and Wednesdays from 3PM to 5PM every week with all of my team members to get as much done as possible to be able to achieve high goals. I love to participate with Vex Robotics because I get to do the types of things that I enjoy. I think every competition is an adventure and the treasure is an award, but even if you don't get one, the experience is a treasure in itself.