



West High School Robotics Program

Information

2018-2019

About Us:

West has six robotics teams: four FIRST Tech Challenge teams, including the RoboRaptors (all girls), Elevated Engineering (coed), Black Ice Robotics (7th and 8th Grade), Raspado Robotics (all Latino), one FIRST Robotics Competition team, Red Rock Robotics, and one First Lego League team, the Robot Maestros.

Red Rock Robotics engages in the FIRST Robotics Competition (FRC), the premiere international high school competition that aims to give students engineering experience in the real world. FRC is the most challenging robot competition that is available to K-12 students. Each year, FIRST announces a game to be played on a basketball court sized field, and we are given 6 intensive weeks to build the robot. Our members work round the clock to complete the task. Sponsors, grants, parents and fundraisers have continued to grow our robotics program at West. This year, we would like to raise \$80,000 to facilitate purchase of materials and allow us to compete in more competitions.



Our Mission:

We foster skills in engineering, leadership, and teamwork in all our members through the process of creating competitive and innovative robots. Our teams strive to be competitive while remaining gracious, recognizing that competition is mutually beneficial to all the competitors in a competition. Our teams also focus on innovation, respect to both ourselves and our competitors, and giving back to our community.

Red Rock Robotics and the FIRST Robotics Competition:

The FIRST Robotics Competition is a unique competition for high-school students in grades 9-12. It seeks to inspire young people to become leaders in science and technology by engaging them in projects that build technical skills, inspire innovation, and connect them with mentors. Each year, in January, the FIRST Robotics Competition announces a new game. Every year, the game follows different objectives and different rules, and teams are given six weeks to build a robot to play the game.

However, the FIRST Robotics Competition is not just about building a robot. The competition also seeks to improve leadership skills and teach important aspects of business, such as marketing, fundraising, and budgeting.



The West High Robotics Program has also adopted the values of the FIRST Robotics Competition as some of our own:

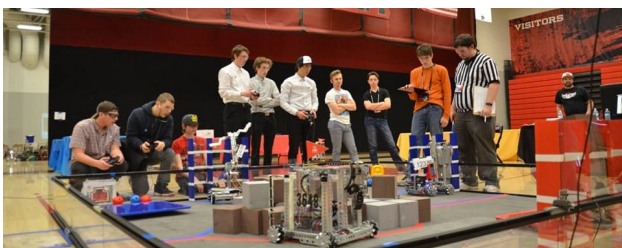
Gracious Professionalism™: This is the concept that competition and mutual gain are not separate. In competing, gracious professionals treat each other with respect, kindness, and empathy. Nonetheless, gracious professionals still strive to be the best in competition with regard to knowledge and skill.

Coopertition™: This is the idea that FIRST competitors should always display kindness and respect even when facing tough competition. Coopertition is based upon the idea that teams can and should help each other even as they compete.

Why Support West High Robotics Program?

To build strong students:

Red Rock Robotics, our FRC team, is in its 10th year of competition and has over thirty members. We seek to break the barrier that prevents many young students from pursuing careers in engineering by demonstrating that engineering is fun, applicable, and challenging. Our team hopes to encourage diversity within engineering, science, and technology fields through helping students find a place where they are comfortable to explore and challenge themselves in these fields. Participation in robotics helps students develop skills in engineering, design, teamwork, leadership, and business.



To build strong communities:

Our Red Rock Robotics team has helped found and continues to support three FIRST Tech Challenge teams, and hosts an annual Robotics tournament which is comprised of 25 teams from all over the intermountain region. The FTC teams include around 30 additional middle and high school students.



Photos from our FIRST Tech Challenge Tournament hosted by West High January of 2018

West High Robotics promotes S.T.E.M. education!!!!

In addition to supporting robotics, our team promotes STEM education by demonstrating at events such as the Salt Lake Maker Faire and various open houses at West High as well as mentoring FLL and FTC teams at other schools such as the Pacific Heritage Academy.

How can you help us build strong partnerships?

One of our greatest offerings to our sponsors and partners is exposure. We can offer our sponsors the following:

- Exposure to thousands of individuals through participation in local events and outreach activities via advertisements on banners
- Coverage from local media.
- Exposure to students and parents at regional robotics competitions (the more competitions we go to, the greater exposure).

The contributions of our sponsors are what make it possible for our Robotics Program to continue running smoothly and field the best possible robot. We offer the following levels of sponsorship:

	<i>Gold</i>	<i>Silver</i>	<i>Bronze</i>	<i>Friend</i>
	\$5000 and above*	\$2000-\$5000	\$500-\$2000	\$500 and below
<i>Recognition on Website</i>	Large Logo at the top of the page	Medium Logo at the top of the page	Small Logo at the bottom of the page	Names listed at the bottom of the page
<i>Recognition at the Competition</i>	Large Logo hung in our pit area	Medium Logo	Small Logo	
<i>Recognition on the robot</i>	Large Logo	Small Logo		
<i>Recognition on Pins</i>	Logo			

*If a gold supporter donates \$10,000 or more, they will get a display in the team pit for competitions and events



Members of the drive team at the 2018 Utah Regional Competition



Drive team walking with the robot at the 2018 World Championship in Houston, Texas

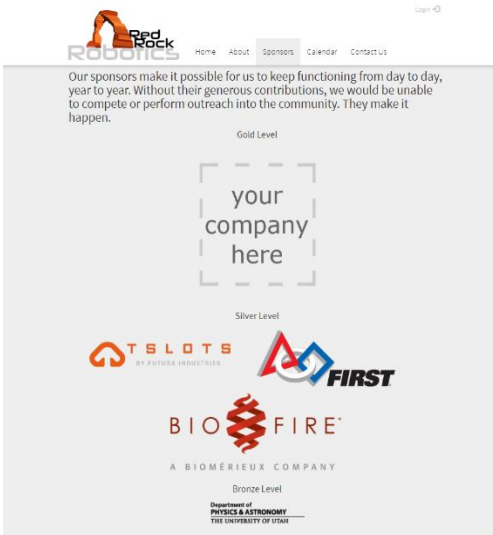
Our Budget throughout the Year:

Travel assuming a team of 30 students and 5 chaperones		Cost(\$)
Competition		
Utah	Registration fee	5000
Regional (3 days)	Lunch for students	900
	Transportation	0
Idaho	Registration fee	5000
Regional (3 days)	Lunch / Dinner	2000
	Transportation - Bus Rental	2500
	10 Hotel Rooms (3 nights)	1750
World Championship (5 days)	Registration fee	5000
	Flights	20000
	10 Hotel Rooms (4 nights)	10000
	Breakfast / Lunch / Dinner (12 meals per person)	5000
	Transportation	500
Parts	Shipping Robot and building crate	500
	Tools-including replacing saw blades, etc.	200
	Driver station: Controllers, Laptop	2100
	Pit Construction - modular table, battery storage, LED display	1500
	Prototyping board- robo rio kit with two motors	1115
	Robot Parts-bumper, T SLOT frame, polycarbonate sheet, etc.	2500
	2 Batteries for competition	250
	Electrical Misc. - cable connectors, cables, cameras, servos	500
	Raspberry Pi and Vision Tracking rings	100
	Ultimate Pneumatics Kit	1250
	Wheels- mecanum, omni, performance, swerve	2000
Marketing	T-shirts	300
	Jackets/Hoodies	1200
	Buttons	100
	Banner with sponsors	100
Safety	First Aid Kit - new	50
	Fire extinguisher	25
	Garbage bins for Regional	250
	Soap, Sanitizers, etc.	25
	Safety Glasses	200
Software	4x Samsung Galaxy Tab A 8-inch (180 each)	720
	Amazon Web Services	60
	Raspberry Pi 3	100
FTC Budget	Registration, Travel, Meals, Parts, Marketing x 4 teams	10000
	GRAND TOTAL	\$82,795



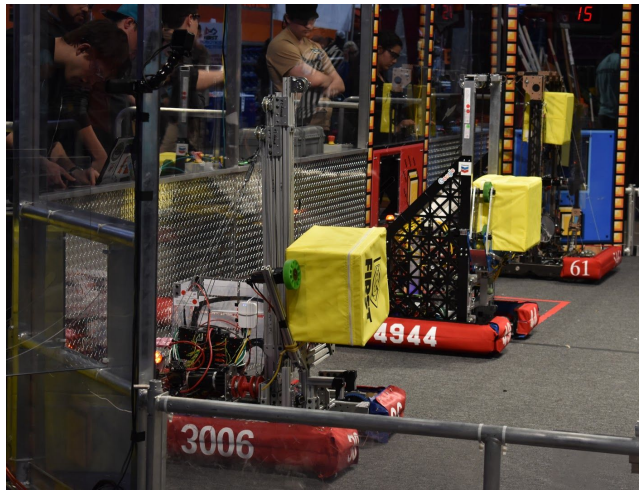
Banner for Competition

Large Logo hung in pit area for Gold sponsors, and medium for our silver sponsors



Website Recognition

For all sponsors \$500 and above we recognize you on the team website.



West High's robot from 2018 that went to the FRC World Championship in Houston, Texas.

West High students excel through participation in robotics!



Feel free to email Enrique Arce-Larreta the West Robotics Lead Mentor Enrique.Arce-Larreta@slcschools.org

www.usfirst.org/roboticsprograms/frc

www.team3006.com

www.youtube.com/watch?v=WjsB4-iUHG ----- 2014 Competition

www.youtube.com/watch?v=egWodMYhwac ----- 2015 Competition

www.youtube.com/watch?v=M8lfFGjLoUw ----- 2016 Competition

www.youtube.com/watch?v=qaONY8Yf-FY ----- 2017 Competition

https://youtu.be/G4Eyu1_Zl3k ----- 2018 Competition

https://www.youtube.com/watch?v=iH1d_UBegpY ---2018 Competition

FIRST PROGRAM PARTICIPATION FACTS

89%

The amount of students who go onto post-secondary programs because of their FIRST experience

42%

Number of FIRST participants who choose engineering as their major in college.

60%

Number of FIRST participants who participate in STEM related internships, apprenticeships or work experience while in college.

