



CEC Fort Collins Middle School Robotics Team



Sponsorship Packet 2024-2025



Dear Potential Sponsor,

The Colorado Early Colleges Fort Collins Middle School (CECFC) Robotics Team is an interdisciplinary group of dedicated CECFC students working to design and build a variety of robots for competition. Through solid construction and programming of the VEX-EDR material medium, we will compete in several VEX Robotics Competitions (VRC) throughout the year. The goal is to keep this program at a competitive level while also giving students an optimal environment for learning,

Our program started several years ago with six students as an after-school club with only one competition robot. Through the hard work of the team's mentors, dedicated members, and benevolent sponsors, the club has grown to multiple classes at the middle school.

The VEX-EDR competition is a seasonal event series where high schools and middle schools across the country design, build, and program robots to compete in the current year's game. The teams will compete through regular season events in their region with goals set on qualifying for the State Robotics Competition (High School and Middle School levels are separate). Teams have a chance to qualify for Invitationals, State, and World Championships.

Since the start of our program, our middle school teams have qualified to compete in both state, national, and worlds competitions. Last year both our teams qualified for the State Tournament, and one of our teams qualified for the U.S. Open in Iowa. To continue the success of our program, and meet the growing needs of our teams, we need to seek out more sponsorships.

The challenges are designed for robotics students to work to build innovative robots best engineered to compete at a high skill level in the VEX-EDR competition. This competition opportunity lets students compete on teams while building technically challenging robots. Students gain valuable academic and life skills along the way such as: teamwork, leadership, project management techniques (like SCRUM), strategy development, technical design skills as well as written and oral communication. These skills largely benefit our students by preparing them for professional workplace expectations.

In this packet we have included information about this year's competitions and our sponsorship levels. We've also provided a breakdown of our proposed budget for the 2024-2025 school year. Your gift will provide parts and tools to build the robots, equipment for this season's new challenge, and will help us pay for travel, registration and competition fees for our teams. We ask for your support towards accomplishing our goals of learning, competing, growing and giving back to the community by building innovative robots. Your support is an investment in the next generation of technicians, programmers, creators, engineers, and leaders. Thank you!

Best,

Charlie Englar CECFC MS Robotics and STEM Instructor



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The 2024-2025 Game



Each year, Vex Robotics, <u>www.vexrobotics.com</u>, introduces a new game for teams to play. The rules and object of the games vary significantly between years, which provides teams with new challenges to design and build creative and innovative robots to play the game. The 2024-2025 game is High Stakes.



High Stakes field set-up

The Details:

There are forty-eight (48) **Rings** on a V5RC High Stakes Field.

There are nine (9) **Stakes** located around the field. Five (5) on **Mobile Goals**, four (4) **Wall Stakes**, one (1) per Alliance and two (2) neutral, and one (1) on top of the **Ladder**.

Each Ring scored on a Stake is worth one (1) point. The **Top Ring** on each Stake is worth three (3) points.

Mobile Goals can be **Placed** into **Positive Corners** or **Negative Corners** to change the values of the Rings on that Goal.

The V5RC High Stakes field also includes a Ladder in the center of the field. Robots climb the Ladder at the end of the Match to receive additional points. The higher the Robot climbs, the more points it will receive!

The Alliance that scores more points in the Autonomous period is awarded with six (6) bonus points, added to the final score at the end of the match. Each Alliance also has the opportunity to earn an **Autonomous Win Point** by completing assigned tasks. This additional Win Point can be earned by both Alliances, regardless of who wins the Autonomous Bonus

<u>Budget</u>

The table below provides an itemized list of expected costs for the 2024-2025 season. The total cost provided is an estimate based upon last season and may vary depending on robot design and performance and unexpected increases in prices for various elements.

*Denotes post-season tournaments / tournaments that are qualifiers

Item	Description	Budget				
Competitions						
Team Registrations	Team registration \$200 per team	\$200				
Local Events	Event registration cost ~\$70 per team with ~4 - 6 events per team (Varies per event)	\$280				
State*	Team registration \$150 per team	\$200*				
U.S. Open*	Team registration \$500 per team	\$600*				
World Championships*	Team registration \$1,200 per team	\$1,800*				
Travel Expenses (these are qualifying tournaments)*						
U.S. Open and World Championships (if qualified)*	Flights for 4 students and 2 mentors at ~\$300 per flight	~\$4,750				
	4 hotel rooms for 4 nights at ~\$120 per night					
	Rental cars, gas, food, etc. – Will vary					
Parts (for one team)						
Metal and Hardware	Aluminum Kits (\$90) and Hardware Kits (\$90)					
Motors	8 V5 Smart Motors at \$47 each	~\$1,380				
Sensors	Vision Sensors (\$80), Inertial Sensor (\$50), Sensor Kit (\$110)					
Microcontrollers	V5 Robot Brains (\$360) and 2 Controllers (\$130/each)					
Facilities						
Game Elements	Game and Field Element Kit for the new High Stakes Game	\$590				
Tools Drivers, wrenches, pliers, wire strippers, hacksaw, drill and bits		\$250				

Sponsorship

We are seeking sponsorships and donations from several entities including companies and private donors; these entities will be recognized for their assistance in several ways as shown below. Please feel free to contact us with any questions.

	<i>Bronze</i> \$100	<i>Silver</i> \$200	<i>Gold</i> \$500	<i>Platinum</i> \$500+
Thank-You Card	CEC FORT COLLINS -	CEC FORT COLLINS	CEC FORT COLLINS	CEC
Sponsor Plaque		CEC FORT COLLINS	CEC FORT COLLINS	CEC FORT COLLINS -
Company banner in robotics room at CECFC and logo on a CECFC robotics shirts			CEC	CEC
All of the above, plus promotion of your business / family in our weekly school newsletter				CEC FORT COLLINS -

The success of the CECFC Robotics Team is dependent upon the contributions from generous donors and sponsors. We would like to reiterate that your help is an investment in not only the future of the team, but also in the future of the students at CECFC—who will become engineers, technicians, programmers, and leaders in industry that will tackle some of the world's most challenging problems.

If you are interested in helping out and making a gift to our program, please talk with your student contact about the next steps.

Thank you!

Contact



CEC Fort Collins Middle School Robotics Team

Donation Website:

https://coloradoearlycolleges.org/cecfc-robotics-fund/



Faculty Sponsors:

<u>Kathleen.Kingdom@coloradoearlycollegs.org</u> - STEM Coordinator for CEC <u>Evan.Mesh@coloradoearlycolleges.org</u> - High School Head Coach <u>Charles.Englar@coloradoearlycollegs.org</u> - Middle School Head Hoach

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