

FIRST Impact Award Final 2023

Room 407 is filled with the excited chatter of engineering students, discussing robot designs and game strategies for this year's FRC challenge. Photos of an ever-growing team, motivational quotes, and several shelves of awards cover the walls. Under the guise of building robots, FIRST Team 2996 produces a community of creators and trailblazers who will become leaders in the fields of science, technology, and innovation.

Starting in 2008, Head Coach Bryce McLean, brought together a group of ambitious students who started building a legacy for future team members. Cougars Gone Wired currently comprises 39 students, 30 men and 9 women, with 16 mentors, all proudly wearing yellow shirts.

Team Structure

The team is led by the Chief Executive Officer, 5 business Vice Presidents, and 6 technical Vice Presidents who are charged with training their team members in the skills needed to implement the tasks of their sub-teams. Students apply for these leadership positions and undergo a hiring process which includes submitting a resume, cover letter, and transcript, as well as completing a professional interview with a committee of mentors.

Since both types of skills are required in today's workforce, team members are required to join both a business and a technical sub-team. This allows them to gain experience in both areas.

As the only Colorado Springs School District 11 team participating in FRC, students across the Pikes Peak region are invited to join our group. We put a strong emphasis on training our new members so they are prepared to be fully involved when we begin build season.

People from all backgrounds and abilities find a role in Cougars Gone Wired, building a diverse team. No matter their previous experience, every student gains hands-on skills. Our team has found ways to include students with physical and mental disabilities, providing them the opportunity to contribute.

Building Team Connections

Many students believe robotics is beyond their abilities, but we demonstrate that it is not only attainable, but fun. During Freshman Orientation at Coronado, we show videos of competitions and talk about how their interests pertain to robotics. Later in the year, we give tours to groups of potential students at the 8th Grade Open House. We also visit Holmes Middle School annually to promote our team to their STEM classes.

Our team barbecue marks the start of the school year when we invite prospective members along with their family and friends to learn about our robotics team. We usually have 60-100 people in attendance. We play games of Duck-Duck-Goose and Frisbee, ending the day with our traditional team-wide water balloon fight. This event is a great opportunity to build new friendships in a casual environment.

Cougars Gone Wired always builds a float featuring our robots and participates in Coronado's Homecoming parade, which usually attracts about 500 people. This is one of the events we take part in to build spirit within the team, connect with the community, and have fun in the process.

During pre-season, we prepare for the upcoming FIRST challenge through a series of team-building exercises, the first of which is to learn our renowned team dance. Often new members are hesitant, but old members make it comfortable to join the fun. Other exercises help us improve our communication skills and learn to work together as a team. At the end of our training, we hold Mock Game, a 3-day exercise presented by the mentors to help us apply lessons and strategies that we have learned.

During build season, our parents support the team by providing nutritious meals every night after school and lunches on Saturdays through a program we call Cougar Kibble. This gives parents a way to be more involved and allows them to see us at work. Team members eat together like a family while transitioning from school to robotics.

Outreach During Preseason

Cougars Gone Wired builds connections with the community year-round through our outreach events. We inspire students by showing them that STEM topics can be fun, especially when applied to robotics.

Every summer, we host our week-long Making a Difference (MAD) Camp. Student volunteers mentor two dozen middle school students, building an understanding of STEM concepts, leadership, and teamwork through a curriculum

developed and taught by CGW members. Campers participate in hands-on exercises, building and programming VEX robots which compete on the last day. Seventeen current and former team members have joined Team 2996 from the 6 summers we have offered the program.

For 9 years, we have been invited to exhibit at the UCCS Cool Science Festival, which reaches more than 5,000 people annually. The team builds excitement by bringing our competition robot to demonstrate what we do and setting up a game field with VEX robots that younger attendees can play. One of our former members saw us at Cool Science as a child and, as a teen, came to Coronado by choice, specifically for the FIRST robotics program. We also bring the team's outreach robot, Safety Sam, which is smaller and more approachable to younger children. Sam is like an oversized Muppet riding on a tricycle who shows the fun side of robots. We are building kids' interest in STEM, and it makes a difference.

The Space Foundation Discovery Center Demo was another opportunity to build interest in robots among elementary and middle school students. We brought our competition robot and VEX robots with the playing field. This event had more than 3,000 attendees. After the demo, a man told us he recently adopted two kids whose parents passed away. He was having trouble communicating with them but, by the end of the day, they were smiling and having a wonderful time. Surprisingly, interacting with the robots gave him a way to communicate with his kids.

We host an annual fundraiser dinner with the generous help of BPO Elks Lodge 309. In 2022, we served about 200 people. Team 2996 and the Elks Lodge have built this tradition since 2015. The proceeds from the fundraiser make the cost of going to regionals more accessible for students. Additionally, we provide scholarships to ensure every student can attend competitions.

The Elks Lodge is supportive of our team, and in turn, there are ways we are helpful to them. In the spring, we help clean the club in preparation for their Tiki Pool Party. We also help set up and serve dinners through the winter.

CGW is involved with the community in numerous ways, including demonstrations at elementary and middle schools. One of our demonstrations was at Mark Twain Elementary's STEM Night where we supported the robot-themed reading program for their 350 students. We assisted Jackson Elementary School with their annual Trunk or Treat event. This allowed us to demonstrate our robot to the 300 students who attended and their parents, sparking enthusiasm for robotics. We also brought along Safety Sam. Sabin Middle School's robotics team struggled

with the building process, so we taught a class in design. During the summer, the team helped historic Sacred Heart Church with their 100th-anniversary dinner, cooking and serving their congregants.

Outreach During Build Season

This year, we partnered with the Palmer High School Augmented Reality (AR) Team. They were excited to have the opportunity to use their skills to produce an AR FIRST field. In turn, we were thrilled to be able to visualize and interact with the field faster than we could build it. This made it possible for us to test strategies before we constructed our practice field. Some of their members have joined our team to learn about robotics and FIRST. We're building bridges between schools with new technologies.

Cougars Gone Wired is the only team in the region that builds a full competition-scaled field and invites all teams to share in its use, providing the opportunity for them to practice before regionals. Starting in 2012, we have held a scrimmage for all teams in the area on the weekend before Week 1 Regionals. We set up the field and pit areas in our gym and hold practice matches all day. We generally host about 2 dozen teams. Since 2014, we have brought our field and run it as the practice field at the Denver Regional. It has also been used 3 times for the FRC competition at Energy Days and the Kendrick Castillo Memorial Tournament.

Since we are often questioned about our unique business model, we started the Business Exchange at the Denver Regional in 2016. This is not so much a lecture as a guided discussion where different teams can share ideas on topics such as how to structure and run the business side of a team, develop relationships with local companies, and generate fundraising ideas.

Relationships With Sponsors

Our final event before competition begins is the parent/sponsor dinner, which gives us an opportunity to recognize the people who have supported us during the season. Retaining sponsors is a challenge for us, and we put effort into maintaining close relationships with the organizations that have supported us over time.

CGW is connected with several technical organizations in our area. L3/Harris and Lockheed Martin provide grants and have supplied mentors. The National Association of Women in Construction (NAWIC) holds one of their chapter

meetings in our facilities. We give a presentation and a tour, showing them the impact their contributions have on the team.

In-kind support is a key contributor to our success. VERTEC is a local business that fabricates our robot's frame from our CAD files and powder coats it in our team colors. Our robot looks professionally finished because of their efforts. Two Men and A Truck helps us to transfer our field to the Denver Regional.

FIRST Team 2996 encourages our students to attempt more than they think they are capable of achieving. By learning leadership, teamwork, and persistence they develop confidence to pursue their ideas. We provide students with the skills for tomorrow.

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