

FIRST Team 2996 Cougars Gone Wired (CGW) embodies the spirit of family. Though we have grown over the years to nearly 80 students, we are as close as blood relatives and the team benefits from our bonds.

Team 2996 is the sole District 11 team, based out of Coronado High School in Colorado Springs, CO. We were started in 2008 by 2 dozen students and 1 ambitious teacher. Our rookie year formed traditions and set the foundation for us to build upon in later years. We invite students from schools all over the city to join the family of 2996. Taking the advice of FRC Team 662, we built our structure from the ground up. Our team is run like a company with technical and business halves and a CEO and CFO. Each half has sub teams that handle one particular aspect, and each sub team is led by a student vice president. Every student participates on both a technical and business team, developing well-rounded individuals. With this completely student-run structure, we are able to teach life skills to everyone on the team.

Due to our open door policy and ability to recruit from the entire city, we've accrued a large number of diverse students. We are proud of the diversity of our team members; not only do we have a high female to male ratio and high minority percentages, our team attracts students with an eclectic array of passions beyond engineering. Our members have interests in business, music, and medicine; and represent every sport barring lacrosse, including varsity athletes and team captains. It's this diversity that makes all our successes as a team and family possible, as it takes away the stigma against science, technology, engineering and mathematics (STEM) and encourages an increasing number of people to join every year. But with so many on the team, it can be difficult to give individuals the attention necessary for their growth. To solve this dilemma, CGW established an FTC team that acts as our junior varsity. Despite the different competition levels, we consider ourselves one family. We go by Cougars Gone Wired, have the same mentors, go to the same meetings, attend each other's competitions, and volunteer at the same events. Thanks to our FTC program, new students are able to hone necessary skills in the more individualized atmosphere of FTC before joining FRC, as well as grow a FIRST mindset through an introduction to Gracious Professionalism and Cooperation.

With such a large team, funding has become an issue. Despite being the sole District 11 team, they cannot provide financial aid outside of small, individual scholarships for students unable to pay for competitions. All of our fundraising is done by the team. Most of it comes from student planned and run presentations to existing and potential corporate sponsors, though we also hold a fundraiser to earn between \$5,000 and \$8,000 every year. Past fundraisers have included selling hex bugs, team apparel, and light bulbs. Through these efforts and the generosity of our sponsors, we are able to raise over \$60,000 each year.

Although our district does not provide monetary support, they assist us in other ways. With frequent meetings between various members of the school board, CGW has garnered district-wide approval resulting in numerous opportunities for our team, and the district. We captivated the audience at both the General Staff Meeting (demonstrating the district's theme for the year, Creating Awesome) and at the annual Gifted and Talented Night for elementary and middle school students. CGW debuted in a district run commercial that was shown in movie theaters all over the city. For the first time, team members can earn a varsity sports letter for participating in robotics. Because of the public exposure that comes from our partnership, strangers often recognize our name and image as a predominant facet of the community.

By participating in school activities at every opportunity, we make robotics as prevalent as football or basketball. Every year we participate in the annual Homecoming Parade in which we build a float and walk with other clubs and teams from the school. At Coronado assemblies, we present alongside all of the sports teams. CGW welcomes new students to join at the Freshman Orientation, 8th grade Open-House and Coronado Registration, as well as run the annual Welcome BBQ for new and returning members and alumni. CGW also participates in the annual Fall Festival, a family Halloween trick-or-treating event.

Team 2996 stresses the importance of inspiring youth with our community service projects. Because of the dedication of our members, we volunteer as much as possible in both the off season and during build season. During the summer, we shared our passion for STEM at 3 library presentations by inviting small children to drive the robot, and by teaching at 4 engineering camps for middle schools. We also attend both the "What If?" Festival and the Cool Science Festival yearly, where we interact with all age groups and invite them to drive the robot igniting their interest in STEM and FIRST. To represent the opportunities of STEM for teens, we present at the 8th grade Career Fair. Finally, the team hosts and volunteers at Sea Perch, an underwater robot competition to help Challenger Learning Center, one of our sponsors. There is nothing more rewarding to our family than seeing the love of STEM grow in a child's eyes.

The largest time commitment for CGW is our involvement in all of the other levels of FIRST: Jr. FLL, FLL and FTC. This is one of our major goals, as FIRST is one of the best ways to spread an appreciation of STEM and we want others to have the same opportunities that we have. Beyond helping other FRC teams at every opportunity, 2996 focuses on the spread of FIRST in Colorado. The team started and runs the first and only Jr. FLL showcase event in Southern Colorado. Every single Jr. FLL team in attendance was started and mentored by our team. Though this is only the second year the showcase has existed, it has already had enormous success in inspiring children to respect STEM and FIRST. The showcase grew 140% compared to the previous year, up from 5 teams to 12.

At the Southern Colorado FLL Qualifier, CGW members provided the bulk of the student volunteers and helped set up prior to the competition. CGW also mentors some of the attending FLL teams. Team members were even given an award for their volunteering and excellent mentoring of one team. At the state competition, team members volunteered as referees.

Team 2996 hosted and ran the FTC Southern Colorado Qualifier this year, an enormous project that took months of preparation. Our whole family including parents, alumni, students and mentors stepped up to take on as much of the responsibility of hosting the event as possible, filling the majority of volunteer positions. 13 teams attended from 3 different states across the Southwest. Though running the Qualifier for our area prevented our FTC team from competing at this Qualifier, the event was immensely enjoyable, a great learning experience, and a chance to grow together.

CGW also runs the annual Colorado FRC Pre-Ship Scrimmage. This event is a major undertaking, as the team builds an entire game field and sets up all the technology and space needed for a competition, which requires over 5 hours of labor the night before, even with the entire team, parents, alumni, and mentors working. We hold the Scrimmage with the intention of uniting attending teams and giving them a leg up in competition. All 20 attending teams – 19 from Colorado and 1 from Wyoming – tell us that it is great preparation for competitions.

Team 2996 also assists in numerous community service events beyond STEM and FIRST to better our neighborhoods, cities, state, and beyond. The team participates in the annual American Heart

Association Heart Walk, helping to distribute water, register runners, direct traffic, and paint faces. We have a group of students who run or walk the Susan G. Komen Race for the Cure every year to show our support.

CGW volunteers in times of need as well. The previous two years, Colorado has endured several devastating natural disasters, such as the Waldo Canyon Fire, the Black Forest Fire, dozens of other wildfires, and subsequent flooding of burnt areas. These fires and the flooding are some of the worst natural disasters Colorado has ever experienced. As the fire burned within 3 miles of Coronado, several team mates watched their entire lives go up in smoke. Many of the rest of the team had displaced families living in their homes and most were evacuated for more than 2 weeks. CGW stepped in to help the community and team mates who had suffered. We attended 3 sandbag fill-up events run by the city, to make and distribute thousands of free sandbags to fire victims to prevent flooding on their properties. These days consisted of long, tiring hours of labor filling and moving 10,000 pounds of sand. Team members spent a day at the famous Flying W Ranch, which burnt down in the Waldo Canyon Fire, to replant trees. During the Black Forest Fire, CGW team members participated in the Care and Share Donation Drive, sorting the thousands of pounds of donations that came in for evacuated families and fire fighters. Later, the team worked with disaster relief organizations to clear debris and build retainer walls to prevent flooding around at-risk homes in the burn scar.

Through steadfast hard work and dedication over our entire 5 year lifetime, Team 2996 has succeeded in growing the influence of FIRST all throughout Colorado, improving our community, and integrating new members into the mindset of FIRST. By following the successes and difficulties of previous years, we have created something that is more than a team. We have created a family of students, mentors and other teams that will withstand the test of time.