

Room 407 sits in the middle of Coronado High School's Tech Building, a horseshoe of computers encircling the back and worn tables named after engineers residing in the front. Motivational quotes, machines, and models of houses and circuits fill the walls. Half-erased sketches of robots adorn a whiteboard underneath a neatly written "0 DAYS UNTIL KICK-OFF". Behind the cluttered teacher's desk lies a small alcove stuffed with filing cabinets and a black bulletin board with an old yellow shirt brandishing "Cougars Gone Wired," a FIRST Championship poster, and dozens of team buttons collected over the years, standing as a monument to the countless students passing through the room, year after year, dedicated to the same cause: FIRST.

Year in and year out, we, FIRST Team 2996 Cougars Gone Wired (CGW), change. New faces replace old, new memories are made as old ones are told. However, our core values have not been altered. Today, CGW is even more driven, even more motivated, and even more passionate about STEM and FIRST than we were when our founder, Woodie Flowers Finalist Mr. Bryce McLean, gathered 34 students in Room 407 to take on the challenge of building a FIRST team. Since then, CGW's passion has led to growth in our community and STEM outreach, media involvement and communication.

Since the original 34 students, FIRST Team 2996's student body has grown into the diverse, focused and dedicated group that we are today. We have maintained a 7:3 male to female ratio, ethnic diversity equal to that of our district, and appeal to students whose interests range from the performing arts to varsity sports.

CGW has a continuously growing family atmosphere, ensuring new members are included in all activities. During off-season, in addition to participating in as many community demonstrations and outreach programs as we can, we spend time together. Every year our Beginning of the Year BBQ invites incoming freshmen and potential members to have a day of fun learning about FIRST and getting to know our team members. Team bonding activities before kick-off ensure everyone has the communication and teamwork skills needed to succeed both inside and outside of robotics, in addition to helping everyone become well acquainted with one another.

Our team is modeled as a student-led business with a CEO, CFO and 10 VPs running subteams. Student leaders are selected through a mentor interview process designed to simulate a real-world job application. Every team member is required to participate on both a technical-focused and business-focused subteam, providing members with experience in designing a robot as well as practical business skills such as presentation, financing, and social media.

Our team's Community Outreach subteam organizes all of our community events and demonstrations, and was especially successful this past year. We organized over 30 different demonstrations and presentations, totaling over 2,100 hours of team member participation. We and our robots have become regulars at many events, such as the University of Colorado at Colorado Springs' Cool Science Festival which we have attended for the past 7 years; while brand new events, such as the Citadel Mall Public Safety Day, expanded our outreach. Our continued presence for the last 7 years at the What If? Festival gave us the chance to be featured on our local Fox News station. This exciting opportunity allowed our team to promote STEM in our community through an interview about our robot and team operations.

Our ever-growing positive relationship with our school district has provided us with more innovative ways to spread FIRST. We have appeared on a District 11 commercial that aired in movie theaters across Colorado Springs, and through district partnership we have had the opportunity to give

demonstrations to elementary and middle schools. When D11 set up an 8th grade career fair, we were asked to attend as an exemplary high school STEM program. Following the trend of increased support, this year D11 board members began sponsoring Cougar Kibble, the volunteer-run program that provides dinner for team members during build season.

CGW also strives to improve our relationship with our host school, Coronado. We always take part in the annual Homecoming Parade and demonstrate our robots at registration and the 8th grade Open House to welcome incoming students to our school and introduce them to STEM. FRC is considered a varsity sport at Coronado, so FIRST Team 2996's accomplishments are listed at assemblies alongside other teams', and as of 2013, varsity letters are offered to outstanding team members. The students on the team, in addition to being motivated to succeed within robotics, are high achievers academically, averaging a weighted GPA of 3.8. Almost half of our team members are enrolled in Project Lead the Way classes, adding to our growing identity as the face of STEM at Coronado and strengthen our school and district's focus on engineering.

Engaging younger generations in FIRST and STEM has always been a major objective of CGW, and, in order to do so, we assist with the Southern Colorado FLL Regional, mentored 12 Jr. FLL teams, and have hosted the Jr. FLL Showcase for the past 4 years. Our community outreach events, like our demonstrations at our local library district and schools, are also targeted towards kids. In addition to our competition robots, 3 years ago a nearby storage company donated seven older "muppet-bots" in disrepair. Our team took the opportunity to restore one of them, "Safety Sam," so he can help us ignite a passion for STEM in young children at demonstrations.

This year, to further this initiative of involving the younger generation in STEM and FIRST even more, we laid out plans for multiple week-long robotics summer camps targeted towards middle schoolers. Hosting these summer camps will give our team members leadership experience and another chance to give back to our community while also providing middle schoolers the unique opportunity to have a more hands-on experience with STEM while working with an FRC team and learning more about FIRST. It will foster more interest in FIRST, leading to the formation of more FLL teams down the road. We created a 5-year plan for the summer camp to ensure it continues after the current team graduates and so it can grow to reach more children in our community.

In the spirit of gracious professionalism, CGW also hosts an FRC Pre-Ship Scrimmage every year at our school. It is the only scrimmage of its scale in the surrounding 12 states, giving FRC teams the opportunity to test how their robots would fare on a full game field before the build season ends. We provide a full day of friendly competition for 15-20 FRC teams. The field we build for the scrimmage is also used as the practice field in the Denver Regional, and team members volunteer their time to drive up to the regional the day before competition to set it up. This allows us to assist less experienced teams by giving them the chance to test and practice running their robot.

In order to assist the FIRST community even more, we will have all of our Chairman's submissions, business plans, and robot CADs published on our website with descriptions and explanations for anyone to access. This gives us the ability to use our 8 years in the FIRST organization to assist other teams to succeed in all areas. In addition to publishing all previous years' work, we will publish a universal "FIRST Mentor Handbook" that will provide basic information about FIRST, what mentors are needed for, and what the timeline of the average FRC year is. This would be useful for new

companies interested in sponsoring FIRST teams as well as for teams to have a basic outline of a mentor handbook that they can customize to meet their needs.

Sponsor relationships are key to sustaining the team and increasing our outreach even more; to maintain and improve these partnerships, we create a presentation to speak to potential and previous sponsors about who we are, what FIRST is, and what we hope to do in the future. Some of our sponsors, such as the Elk's Lodge 309, invite us to do community service with them. This sponsor partnership allows us to impact the community while spreading FIRST and gaining the funds needed to improve our team. Through them, CGW has helped raise \$7,500 for a child needing cancer treatment as well as \$3,000 for homeless veterans. Another of our sponsors, the National Association of Women in Construction, annually meets at Coronado. At this time, we provide them with tours of our workspace and give them a presentation on how our team has impacted females in STEM. During the last week of build season, we host an annual sponsor dinner, inviting representatives from each of our sponsors to see the year's robot and thank them for their continued support of our team.

The impact FIRST Team 2996 has on our members shows even after they graduate. 95% of our alumni went to college for many different STEM-related fields, and 48% continued their involvement with FIRST. Many of our alumni stay with us to participate in summer community events. In order to keep our alumni involved, we open our kick-off to all past members who are home during the broadcast. This allows our old members to meet our new and share past experience to help tackle the new game.

This year has brought yet another set of students through Room 407, with a new challenge, new ideas, and new outlooks on our goals, and we are more determined than ever to improve both ourselves and our community and further spread the message of FIRST. Over the past 8 years, we have built more than robots. We have built leaders, engineers, and the foundations needed for future success in all of our endeavors. With plans for a new summer camp underway and new published resources on our website, FIRST Team 2996 Cougars Gone Wired is preparing for not only our success but the success of all FIRST teams.