

# 2024-2025 REEF SCAPED BUSINESS PLAN Team 2996

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# Executive Summary

# **Cougars Gone Wired Mission Statement**

FIRST Robotics Competition Team 2996, Cougars Gone Wired (CGW), is dedicated to the pursuit of knowledge with a commitment to our community and the expansion of FIRST. We aim to serve as role models for other teams, emphasizing the development of students and robots, finding joy in hard work, and excelling while aiding others. Our overarching goal is to inspire not only our team members but also younger individuals to pursue STEM careers.

Our team's motto for this season is: "When life gives you lemons, build a robot," reflecting our dedication to perseverance. Additionally, we prioritize gracious professionalism, not only at FIRST competitions, but within our school and community as well, making every student feel welcome and aiding other teams. Running an annual week zero scrimmage further exemplifies our commitment to the Colorado FIRST community, providing regional teams with a platform to practice on a full-size field and prepare for their upcoming FIRST competitions.

## Team Origin

Our team was originally formed in 2008 when our head coach, Bryce McLean, endeavoured to provide a competitive outlet for engineering students to showcase their STEM-related skills outside of school. That year, our team had thirty-four excited and dedicated members meeting at Coronado High School in Colorado Springs, Colorado. With just these students, our team made it to the International Championships in St. Louis, Missouri. Having grown and developed since then, we have attended thirty-six events, eight of which were world championship competitions. What began as a building a robot for one competition evolved into a team competing in two regionals each year, running the Colorado Scrimmage, attending one off-season competition, and striving to make a difference both in our local community and the legislature of our state.

Our skills have evolved over the years. As rookies, the robot we built could not do much more than drive while our latest robot is able to drive, manipulate game pieces, and climb. Additionally, we manufacture our own chassis, devise innovative ways to meet the requirements of the current year's game, and continually increase our use of new technologies such as vision processing, CNC machining, 3D printing, the input of programming libraries, and the use of swerve drives.

Since the business side of our team is as strong as our technical side, our team started running an annual Business Exchange at the Denver Regional in 2016. This meeting is an hour-long open forum during which FIRST Teams have the opportunity to collaborate and help each other in areas where they may be struggling. Topics discussed include fundraising, outreach, management, sponsorships, team structure, and awards, providing well-rounded business insights for teams with even the weakest business branches.



The Original Cougars Gone Wired - 2009



# Relationships

Though our team is active year-round, one of our first official events of the academic year is an annual barbecue. This is our way of inviting students of all experience levels to learn about our team, giving our participants and their families the chance to meet each other, develop relationships, and have fun.

Toward the end of the fall semester, the entire team participates in a three-day "Mock Game." This simulation of the first week of Build Season is a preparation for Kick-Off. Our mentors release a past game for which we need to decide on a strategy and a thorough robot design. Through this exercise, our team learns to collaborate and work together.





Throughout the season our team participates in outreach events, building camaraderie and teamwork before the robot is built. Working in the community not only builds relationships and improves communication on our team, but enhances the STEM education in Colorado Springs.

#### Mentor Relations

Currently, Cougars Gone Wired has twenty-two mentors, many of whom are engineers, industry professionals, business-owners, and educators. Every year, they assist our members by sharing their experiences in a way that helps our students grow, developing strong bonds with our members. This encourages us to work hard and think deeply, ensuring we reach our full potential.



#### **Sponsor Relations**

Sponsorships are acquired through demonstrations and company presentations. We always treat our sponsors with respect, inspiring them to continuously support our team each year. The team's gratitude is displayed through thank you letters and advertisements on team shirts, robots, and the walls of our field. The Pikes Peak Chapter 356 of the National Association of Women in Construction (NAWIC) has been a dedicated sponsor for many years. Their first monthly meeting of the year is held at Coronado High School where we make a presentation about our team and the improvements we made that year. They have taken our students under their wing, helped, and encouraged us time and time again.

# Risk Analysis

#### Strengths

**Student Led**: Our team's biggest strength is being student-driven. Students run brainstorming sessions, make decisions regarding the robot, and do the hands-on work. VPs lead their subteams, while our CEO works closely with the VPs to establish goals, check progress, and ensure smooth collaboration.

**Team Bonding:** The members of our team have great relationships. This makes it more fun to work together as we grow to truly care for one another. We think of each other as family, and we are willing to go above and beyond for each other.

**Spirit:** Our team has amazing spirit; everyone is excited to be a part of the team, and they are not afraid to show it. Our students come to our competitions decked out in spiritwear from head to toe, and are often the loudest section in the stands. You can see our students walking through the halls of the school wearing team shirts, hoodies, and hats. We even have our own dance that we love to teach to other teams during competitions.

**Dedicated:** Each one of our team members is extremely committed to the team. Five days a week, our members are in our woodshop, auto shop, or our main meeting room working.

#### Weaknesses

**Communication:** At times, members of our leadership fail to communicate their goals and progress clearly to one another, causing delays that could be crucial to some subteams. These issues occasionally cause us to rush through projects toward the end of our season, which can result in lower quality performance.

**Task Delegation:** Sometimes it is a struggle to keep some of our newer members engaged. One of our team values is that everyone participates, though it can be a challenge to find jobs to keep everyone occupied.

## **Opportunities**

**Training Younger Members:** Our VPs are focused on developing and refining teaching methods to train newer members. This approach not only keeps our current members engaged and well prepared, but ensures our future VPs are well trained.

**Documentation:** The team as a whole is creating more organized methods of documenting our prototypes and taking notes on specific systems. Several of our VPs have had their teams research different mechanisms, such as drive bases, intakes, and manipulation devices, both as a form of training, and future reference. Most of our documents are stored digitally in a shared drive in addition to hard copies maintained in various subteam notebooks.

**Reaching Out To All Members:** Each team member chooses to be involved with both a business and technical subteam. If they are not busy on their subteam, they float to others that need assistance. VPs create a list of smaller projects for these students, keeping them engaged while helping them explore and discover their interests.

**Team Unity:** As a team, we are growing closer. During Build Season, we all eat dinner together and spend time together outside of robotics, which helps to establish trust between members and makes completing projects together more enjoyable.

## Threats

**Losing Knowledge:** Every year, we lose a lot of experienced members to graduation. If our VPs don't train younger members or document what they've learned along the way, we could suffer the consequences of inexperience the next season.

**Losing Membership:** Our team's size is also greatly diminished by graduation. It is important for us to have a robust recruitment program to account for these losses.

**Over Ambition:** At times, our team can be a little overconfident in our ideas. We may believe that we know all that there is to know, when we may lack the technical expertise needed. This can lead to unforeseen issues down the line.

# **Risk Mitigation**

Our team has established plans to teach our younger members, and even our veteran members, crucial skills. VPs have set training days for each of their subteams during pre-season, and they continue to mentor their members throughout Build Season. This enables newer members to be more effective contributors, leading to us getting things done even faster than we have in previous years. We've also implemented multiple safety measures in order to prevent possible injuries. Some of these measures include:

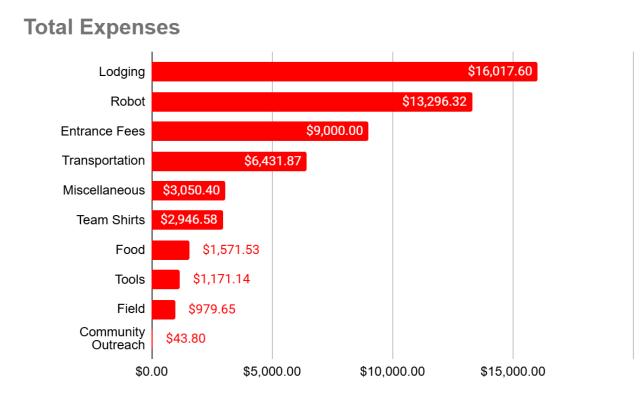
- **Safety Test:** Members of the team are not allowed to use any tools or machinery until they complete the Safety Test with 100% accuracy.
- **Safety Captain:** We hold all our members responsible for participating in and promoting safety, but we have a Safety Captain that specifically helps reinforce safety rules during meetings and at regionals.
- Safety Glasses: If a member doesn't wear safety glasses, they can't work in our shops.
- General Safety: Members must have their hair tied back, wear close-toed shoes, etc. Our team values the safety of our members, therefore we go to great lengths to make sure they are as protected as possible.





# Financial Statement

We used last year's total team numbers to show a full year of CGW's finances since our season does not conclude until the school year ends.





# **Total Income**

# Team 2996 History

## 2024 - Crescendo: Audrey II

As we approached the Crescendo season with excitement, this year was full of growth and refinement for our team. Audrey II, through our use of pneumatics, demonstrated our evolution as a team. This achievement set the stage for future accomplishments, leading us to the playoffs at both the Colorado and Green Country Regionals.





Charged Up was no doubt a year that fits its title. This Build Season was fast-paced and full of energy, with the team focused and excited to go to regionals. We built a robot that took us to third place this year. Arlo, our first competition swerve drive, marked a new stage for Cougars Gone Wired, and opened new doors in terms of drivebases.

#### 2022 - Rapid React: GO-4

With COVID-19 restrictions finally easing, our team started getting back on track. Although our seniors were the only members with building and competition experience, we tackled FIRST's 2022 game, Rapid React, head-on. The first chassis we built was flawed, leaving our technical and driving subteams without access to the robot for an entire week. Despite this setback, we successfully built a robot that led us to the quarter-finals at both the Oklahoma and Colorado Regionals.



#### 2021 - At Home/Challenges: Oscar & Meyer

This year was like no other. With COVID-19 still restricting in-person events, FIRST introduced the At Home Challenges, offering our team the flexibility to choose our level of participation. We chose to take on all challenges, forming new subteams to tackle each one. We finished in the top 20 of the Game Design challenge with our game, Biodome Blitz. We were also successful with the other two challenges in which we participated.



#### 2020 - Infinite Recharge: Oscar & Meyer

In 2020, FIRST launched Infinite Recharge, a game sponsored by Disney and Star Wars. Build Season proved challenging when multiple days of network outages left us without access to our CAD files and delayed our robots, Oscar and Meyer, from being assembled on time. When the situation was resolved and our parts finally arrived, we were geared up and ready to go to the Colorado and Idaho Regionals, but due to the COVID-19 pandemic, we unfortunately were never able to attend.

#### 2019 - Destination: Deep Space: Scoop

In honor of the moon landing's 50th anniversary, FIRST launched their challenge Deep Space in 2019. This year, we competed at both the Oklahoma and Colorado Regionals. One challenge we faced was the late completion of our CAD designs, causing a delay in the production of our robot's chassis and parts. Despite this, we ranked fifth at the Oklahoma Regional, captaining alliance five and making it to the quarterfinals. We also won the Team Spirit Award at the Oklahoma Regional.



#### 2018 – Power Up: Rocky



This year was extremely successful for the team. Although we didn't make it to the World Championships, we did great in competition and were competing with world-class teams that went on to win globally. Our biggest challenge this year involved batteries. Team 118 generously allowed us the opportunity to continue competing as they let us use their batteries during matches. At the Salt Lake City Regional, we were picked for the number two alliance and made it to the Semifinals. In Denver, we were team captains of the number three alliance and fought for the winning title but fell short. We learned a lot from this year. Our robot design was outstanding for the game and we were able to see that we have the potential to be a top performing team.

#### 2017 - Steamworks: Thumper

FIRST launched Steamworks with a new challenge - human players competing on the field. Our team members were excited to see how this game would play out. During Build Season, things didn't go as planned and the parts from our manufacturing sponsor were delayed. Our team flexed around this setback and extended each meeting by an hour once the parts arrived to stay on schedule. Once Thumper was assembled, the team competed at both the Utah and Colorado Regionals. CGW ended the season with the Engineering



Inspiration, Safety, and Creativity Awards. Just like the year prior, the Engineering Inspiration Award allowed us to compete at Championships. Madison Rutherford, our CEO, won Dean's List in Denver.

#### 2016 - Stronghold: Underscore



Bryce McLean returned as head coach, starting the season off with a feeling of optimism. However, a week of school snow cancellations created scheduling challenges. This did not slow the team down and we were able to build a powerful robot. CGW attended a first-year regional in Flagstaff, Arizona. This changed their routine and allowed us to connect with new teams. CGW won the Engineering Inspiration Award at our home regional in Colorado which carried us to Championships in the Carson division.

## 2015 - Recycle Rush: Gunther

Due to a change in our head coach and loss of a long-term mentor, we were challenged entering the 2015 season. We persevered, ranking 4th at the Utah Regional and winning the Engineering Inspiration Award, guaranteeing us a spot in Championships. At the Colorado Regional, we ranked 12th and won the Quality Award. At Championships, the team was in the Curie division once more, seeded 52nd.



#### 2014 - Aerial Assist: Kirby

The team was incredibly successful as we were both Regional Chairman's Award winner and Regional Winner at the Utah Regional. These achievements lead to a fun and enthusiastic second regional in Denver. CGW won the Colorado Regional Spirit Award and was ranked 8th in the Curie division at the Championship competition. We eventually finished the season in 24th place.

#### 2013 - Ultimate Ascent: Sebastian

CGW made it to the Semi-Finals at the Kansas City Regional and received the Imagery Award. At the Colorado Regional, the team won the Regional Chairman's Award, made it to the finals, and was chosen as the Colorado Wildcard. At the Championship competition, CGW made it to the semifinals in the Curie Division - further than any other Colorado team had gone before. We were unable to continue competing due to a Jaguar motor failure mid-match.





#### 2012 - Rebound Rumble: RDR

Going into its fourth season, CGW adopted a new plan from another FRC team: two identical robots, both built within the six-week Build Season. The first robot was "bagged and tagged" and the second stayed behind. This gave the team extra time for driver practice, testing programs, resolving robot issues, and making improvements. This led to CGW's victory at the Colorado Regional as head of the top-seeded alliance with teams 399 and 3807. The team then proceeded to the Archimedes Division at the World Championships, at which the team's CEO, Jasmine Kemble, was chosen as a Dean's List Winner.

## 2011 - Logo Motion: Grab 'n' Go

One of the most successful seasons to date was in 2011 with the game Logo Motion. CGW won the Entrepreneurship Award for the second year in a row and made it to the semi-finals in the Kansas City Regional. The Colorado Regional also yielded the Woodie Flowers Regional Award for the team's "Big Kahuna," Mr. Bryce McLean. A FIRST Dean's List Finalist Award was presented to Scott Von Thun at this regional. The team continued to the Championship competition with the acquisition of the Colorado Regional Chairman's Award. Cougars Gone Wired made it to the 7th seed in the Curie Division at the Championship competition in St. Louis, Missouri.



#### 2010 - Breakaway: Sparky



Inspired by the previous year's success, CGW went into the 2010 Breakaway season aspiring to build a robot capable of competitively playing the game. The team chose to increase their level of competition by participating in multiple regionals. The Kansas City Regional was used to make significant improvements in preparation for the Colorado Regional. In Denver, the team made it to the semi-finals. The team was also awarded the Entrepreneurship, Industrial Safety, and Autodesk Excellence in Design Awards.

#### 2009 - Lunacy: Dozer

Given the complexity of building a robot and the inexperience of a rookie team, the robot for 2009 Lunacy was built to be what the team jokingly called "Dozer" as it was not able to do much more than push other robots around. CGW experienced little competitive success on the first day of the Colorado Regional but was re-energized after receiving the Website and Animation Awards. The team returned with the intent to enjoy the rest of the time at competition as it was clear Dozer would seed high enough to join in the elimination rounds. However, thanks to the kindness of the first-seeded teams (FIRST Team 399 and FIRST Team 1332) CGW not only participated in the elimination rounds, but was part of the winning alliance. CGW received the Rookie All-Star Award and got to compete in the Newton Division of the Championship competition in Atlanta, Georgia.



# Awards History

2009	COLORADO: WEBSITE AWARD, HIGHEST ROOKIE AWARD, ROOKIE ALL-STAR AWARD, COLORADO WINNERS, AUTODESK VISUALIZATION AWARD	COLORADO: SAFETY AWARD AND ENGINEERING INSPIRATION AWARD DEAN'S LIST FINALIST MADISON RUTHERFORD UTAH: CREATIVITY AWARD	20
2010	COLORADO: INDUSTRIAL SAFETY AWARD, ENTREPRENEURSHIP AWARD, AND EXCELLENCE DESIGN ANIMATION AWARD	COLORADO: SPIRIT AWARD UTAH: IMAGERY AWARD	20
2011	COLORADO: WOODIE FLOWERS- MR. BRYCE MCLEAN DEAN'S LIST FINALIST: SCOTT VAN THUN CHAIRMAN'S AWARD KANSAS CITY: WEBSITE AWARD	COLORADO: SAFETY AWARD SPIRIT AWARD OKLAHOMA: SPIRIT AWARD KENDRICK CASTILLO INVITATIONAL FINALIST	20
2012	COLORADO: WOODIE FLOWERS- MR, DAVID MURPHY DEAN'S LIST WINNER- JASMINE KEMBLE ENTREPRENEURSHIP AWARD AND WINNERS KANSAS CITY: SPIRIT AWARD	N/A	20
2013	COLORADO: CHAIRMAN'S AWARD AND FINALIST KANSAS CITY: IMAGERY AWARD	KENDRICK CASTILLO INVITATIONAL FINALIST	20
2014	UTAH REGIONAL: CHAIRMAN'S AWARD COLORADO: SPIRIT AWARD	COLORADO: SPIRIT AWARD OKLAHOMA: SPIRIT AWARD	20
2015	UTAH: ENGINEERING INSPIRATION AWARD COLORADO: QUALITY AWARD	UTAH: IMAGERY AWARD	20
2016	COLORADO: QUALITY AWARD FIRST DEAN'S LIST FINALIST- RYAN KIGHT	COLORADO: QUALITY AWARD OKLAHOMA: QUALITY AWARD	20

# Tracking Growth

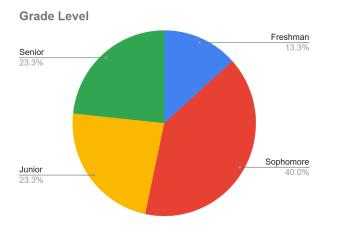
Cougars Gone Wired has taken time over the past seventeen years to celebrate successes, learn from mistakes, and spread awareness throughout the community about our team and *FIRST*. Through the years, we have increased the number of community outreach events that we attend, collaborated with different levels of FIRST teams and competitions, and started our own legislative advocacy initiative.

In our fourth year, we started running the Annual Colorado Scrimmage, an event engineered from our wanting to give other Colorado teams access to a full-scale field for testing their robots before "bag-&-tag." CGW has strived to grow this event, increasing attendance and improving the overall efficiency and organization. This competition-quality field is the only one of its kind in Colorado that is shared with other teams.

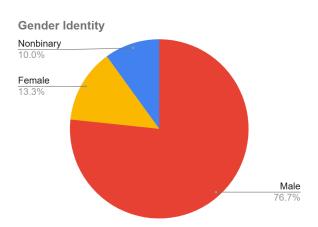
We also established the 2996 Cougars Gone Wired Business Exchange in 2016. It is an open forum where teams trade ideas, learn from one another, and build off of the business strategies of other teams. We only run the Business Exchange at the Colorado Regional, but we have plans to expand the operation to the Utah, Oklahoma, or Idaho Regionals as well in the years we respectively attend these events.

Also starting in 2016, our team began holding our Making A Difference (MAD) Summer Camp for rising sixth to ninth graders. This week-long summer camp allows younger students to learn about the engineering process while building and programming their own VEX robots. We improved this camp in 2024 by expanding it to two weeks, adding a new level of difficulty for those students who wanted more challenge.

Coming back from COVID-19 in 2022, our team developed a new scouting program that was much more user-friendly than our previous program. This allowed us to more quickly and efficiently transfer information gathered from matches to our database, giving us more accurate statistics to work with when determining our ideal alliance-forming strategies.h We currently have plans to remake this program on more building-block code so, in addition to statistics, we can utilize more text-based input at future regionals.



# Team Demographics



# Organizational Structure

Cougars Gone Wired is structured like a business: we have a CEO, a CFO, and a number of student leaders called Vice Presidents (VPs). These leaders are responsible for teaching and delegating tasks to their subteam members so they can complete projects on time as a group. Decisions are made by the students, and our coaches and mentors are there strictly to guide and encourage us to think outside of the box while students take initiative.

## Student Leadership

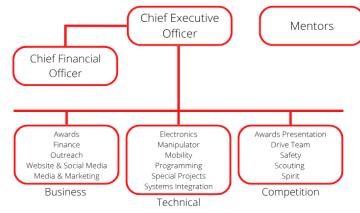
The FIRST experience inspires learning and growth both individually and as a team so encouragement of student enthusiasm for STEM is important to Cougars Gone Wired. Remaining "student-led and mentor-guided" is a priority for our team. This policy has paved the way for intensive learning and meaningful experiences for our students and strong relationships with our mentors.

# Chief Executive Officer (CEO)

The CEO oversees the progress of the team and makes sure deadlines are met. They are also the main spokesperson at community events and sponsor presentations.

# Chief Financial Officer (CFO)

The CFO is also the Finance VP. Their responsibilities include finding potential sponsors, maintaining relationships with existing ones, organizing presentations, and fundraising. They are also tasked with composing the Business Plan each year and leading the Business Exchange at the Colorado Regional.



# Leadership Positions

Subteams are led by VPs who are responsible for establishing goals and ensuring that they are completed on time. They are required to exemplify good role-model characteristics, participate in all team activities, and be present for weekly leadership meetings.

To obtain leadership positions, students must go through an application process similar to that of a job application. This includes the submission of a high school transcript, resume, and cover letter. This is followed by individual interviews conducted by a panel of the team's mentors who then decide who is best for each position.

Both our business and technical leadership are selected in the spring for the next year's season. Business VPs maintain community and STEM involvement throughout the summer while Technical VPs train their subteams on the crucial skills they'll need for Build Season.



# Business Subteams Awards

The Awards subteam work on all our FRC Awards throughout Build Season, focusing primarily on the Woodie Flowers and FIRST Impact Awards. They write the team's awards essays, executive summaries, and work with Media & Marketing in creating the FIRST Impact Video to ensure that we make a quality product for the judges' viewing at regionals.





# Community Outreach

The Community Outreach subteam organizes all of the demonstrations, projects, and presentations within our community. They put together everything we need to bring to these events and make sure we document them correctly.

# Finance

The CFO leads the Finance subteam in organizing fundraisers, maintaining sponsor relationships, writing the Business Plan, applying for grants, and preparing the Team Sustainability Award. They assemble the Sponsor Presentation Team and keep current sponsors up-to-date on team-related information.



#### Media & Marketing

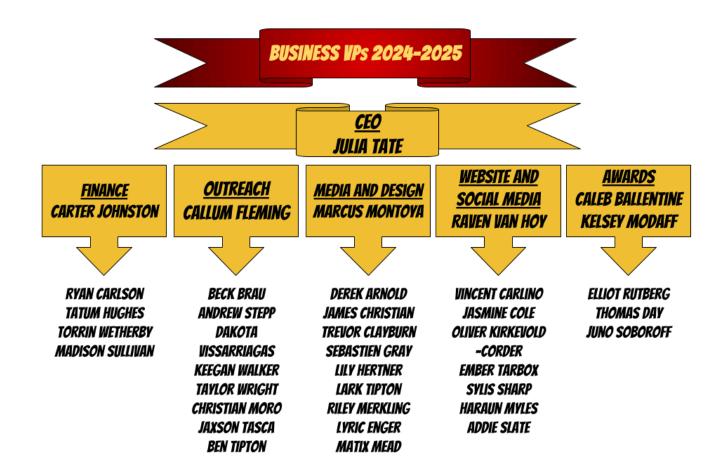
The Media & Marketing subteam focuses on generating content for our team's YouTube channel, promotion material, and merchandise. They brainstorm ideas for stickers and pins during pre-season, and realize those designs by competition season.







The Social Media & Website subteam is in charge of posting on the team's social media accounts (Facebook, Twitter, LinkedIn, and Instagram) to consistently update students, sponsors, parents, other FIRST teams, and the rest of the community. They also maintain and improve the team's website using HTML.



# Technical Subteams

## Electronics

The Electronics subteam designs the electronics board, wires the robot, and manages any pneumatics and batteries throughout Build Season and at competitions. They assure that all electronic components are safe and can support all of the motors, sensors, and actuators on the robot.



## Manipulator



The Manipulator subteam designs the part of the robot that interacts with any game pieces. They design the mechanism that handles and scores the game piece, including any intakes, shooters, arms, elevators, or anything else that moves the piece. This ensures we can play this years' game according to our strategy.

## **Mobility**

The Mobility subteam is in charge of making our robot move and interact with the field. They design and fabricate a chassis every year according to the game's requirements and construct climbing components when necessary.





# Programming

The Programming subteam is in charge of making each component of our robot move. They write all of the code for vision processing, the fifteen-second autonomous period, and control of the components built by the Manipulator, Mobility and Systems Integration subteams.

## Systems Integration

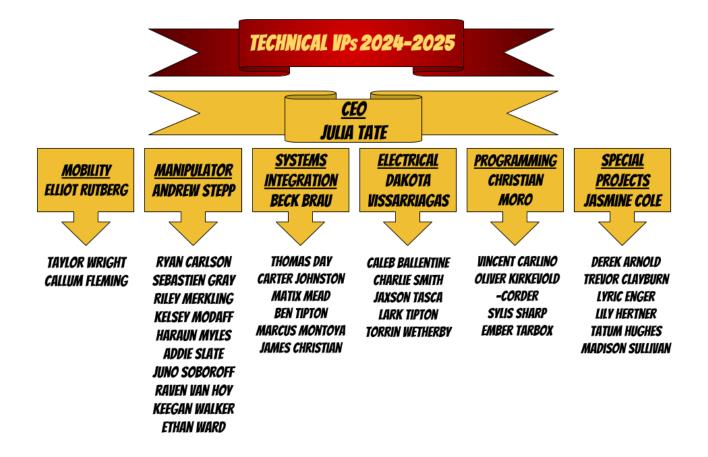
The Systems Integration subteam unites the subsystems from each technical subteam into a single robot by creating a 3D model in Fusion 360. They determine the final dimensions of the robot and placement of its subsystems, then send the design to our sponsor, Vertec, who machines the metal needed to build our robot





# Special Projects

The Special Projects subteam constructs a full-size field based on the measurements supplied by FIRST. Our team uses this wooden field to host the Annual Colorado Scrimmage, as well as to provide a practice field at the Colorado Regional.



# **Competition Subteams**

## FIRST Impact Presentation Team

The FIRST Impact Presentation Team represents our team in a formal presentation as part of the FIRST Impact Award submission. This subteam consists of four members, one being a backup speaker. Together, they memorize and coherently deliver a set presentation, formally epitomizing our team.





Our Drive Team consists of five students: a driver, manipulator, human player, technician, and coach. These members are selected through try-outs that occur through robot testing during Build Season and our Annual Colorado Scrimmage.

## Safety Captain

The Safety Captain is responsible for assuring that the whole team maintains safe practices while working in the shop and pit. They administer mandatory safety tests and present the Team Safety Plan to safety advisors at FIRST competitions.





This subteam, led by the Head Scout, incorporates every member of our team. The Head Scout compiles match results at competitions; this data is later used by the Drive Team to determine strategies and alliance partners for finals. Recently, we developed our own app to keep track of match results so we can more easily establish strategies and alliances.

#### Spirit Captains

Our Spirit Captains are in charge of keeping the entire team energized and ready to support our Drive Team at regionals. They lead the team in chants, dances, and crafty activities before competitions to make sure that every member sports their Cougar pride. Even when our team is not on the field, our Spirit Captains are often found leading our team in cheering for other robots and alliances.



# Scouting Team

# Coaches and Mentors

Coaches and mentors provide guidance and supervision to the team. They are engineers, industry professionals, business owners, and teachers that advise the team about the design, fabrication, and construction of the robot as well as the business aspects of the team. Our mentors advise the team but students make all of our vital decisions and determine strategies as well as constructing the robot and field.

# Team Life Cycle

#### Community Service

From April to December, the main focus of our team is to participate in as many demos and outreach projects as we can. By doing this, we not only strengthen the bonds with our community, but we strengthen the bonds within our team.





From August to December, the team is focused on growing, teaching, and developing skills. We use these months to create stronger intra-team relationships through different team-building activities. This time period is used to train new members on how the overall team works and what happens in each individual subteam. This is when we hold our Mock Game, which provides members with additional training so they can be ready for Build Season. We also participate in the Kendrick Castillo Memorial Tournament (KCMT) every October, which acts as a practice competition for the upcoming season.



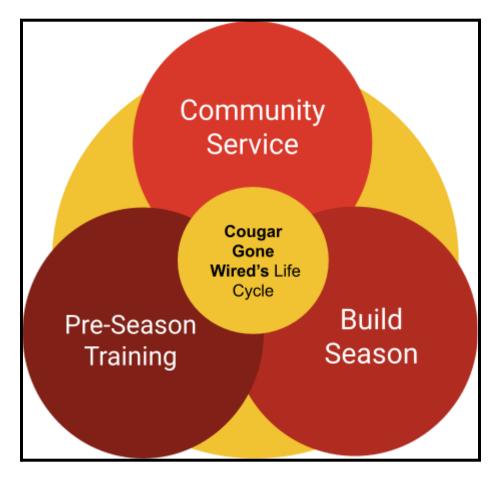
#### **Build Season**

The first Saturday in January is our official Kick-Off to the six-week Build Season. This period is an intense time where technical subteams take the knowledge gained during pre-season and apply it to building a fully functioning robot. In the first few days, the entire team gathers together to strategize, design, and prototype our robot. Our business subteams are also hard at work during this time writing essays, making documents, and planning events.

# **Team Recycling**

Our team recycles all of our materials with the exception of our drive bases. We have a full container of recycled wood along with wood that has been donated to our team. Our motors are reused each season, as well as all hardware that has not been destroyed or worn to the point of dysfunction. We completely take apart the field and robot from the year before after we are done with competitions, then filter through and determine which components we can and cannot use.





# **Building Bonds**

# Team Bonds

Cougars Gone Wired is unique when it comes to the relationships between our students, mentors, and alumni. Everyone on our team thinks of each other like family; we all care for and are there for one another. This creates an excellent work environment during our Build Season as our strong bonds allow us to work closely and efficiently with each other.



Cougars Gone Wired recruits at Coronado registrations,

community events, and an annual informational barbecue. Pre-season meetings focus on team building and technical education. Members socialize at Village Inn outside of meeting hours for weekly Pie Nights after our Wednesday meetings. Our team members also host movie nights and group hangouts throughout the season. These events solidify the friendships between members while retaining and attracting new students to the Cougars Gone Wired family.

## Alumni Bonds

The team's family atmosphere encourages alumni to return and participate in Kick-Off, community outreach, team meetings, and competitions. Alumni are valuable mentors as they are able to share their own team experiences as well as their life experiences after high school.

## Parent Bonds

For the first few years of Cougars Gone Wired's existence, the students relied on trips to local restaurants and grocery stores for sustenance during the busy hours of Build Season. For the 2012 Build Season, however, the parents banded together and organized a family-supplied and served meal program called Cougar Kibble.

Cougar Kibble has successfully fed our team of over fifty members and mentors every day of Build Season, including Saturdays, for the last eleven years. This program benefits the student's health, increases team productivity, and enhances the team's familial atmosphere.



## Mentor Bonds

Over the years, Cougars Gone Wired has been graced with dedicated and supportive mentors. Our team's policy is that mentors suggest, but students decide. Students do all the hands-on work, mentors guide and share their knowledge, while still allowing students to utilize their creativity and learn different skills in a hands-on way. Mentors endure the long hours alongside the team, supporting the Cougars Gone Wired family atmosphere.





School District Bonds

Coronado High School also supports us by providing us with plenty of workspace. They allow us to use the auto shop, the wood shop, the auxiliary gym on Saturdays so we can set up and practice on our field, and even the main gym where we host the annual regional Colorado Scrimmage. A relationship with Coronado's Student Council also grants advertising and mutual fundraiser support, while a connection with Coronado's Catering and Home Economics class provides meals for Cougars Gone Wired's Parent/Sponsor Appreciation Night. This season, our team has partnered with Palmer High School's Augmented Reality (AR) team. Their cooperation gave us the ability to view the game field on Kick-Off day, letting us immediately interact with game pieces and field elements before we started strategizing and designing anything. Thanks to them, our subteams have worked more quickly and efficiently than in any previous season, permitting us to generate more complex ideas and prototypes for this year's robot.



Coronado High School - Colorado Scrimmage





# Coronado Wood and Auto Shop



## FIRST Bonds

Cougars Gone Wired exemplifies all values of FIRST, especially Gracious Professionalism and Coopertition. All regional FRC teams are invited to the Colorado Scrimmage, which is held the Saturday before Regionals begin. This is a valuable opportunity to test robots and practice working in alliances. Generally, we have about two dozen teams in attendance from all over the region. The field is assembled on Saturdays during competition season, and teams are invited to practice on it.

In 2018 and 2019, Cougars Gone Wired ran the Southern Colorado FLL Qualifier. Forty eight FLL teams attended. More than half of the volunteers were members of 2996, along with 25% from other groups associated with FIRST, including Team 662, Team 4068, FLL alumni, and other positions in FRC. We also ran the first FLL Jr. Showcase in the region, which started in 2011 and was canceled in 2020 due to COVID and has not yet been reinstated.

Starting in 2017, the team created the Business Exchange at the Colorado Regional, a forum where teams can swap ideas and ask for advice from other teams. The Business Exchange was modeled after the Chairman's Exchange with the idea of having an open discussion about teams' strengths and weaknesses in their business structure.



#### Local Community Bonds

Outreach is important to our team and we love to share our passion for STEM with the rest of our community. This year, we participated in the Cool Science Festival at the University of Colorado in Colorado Springs, the Space Foundation Summer of Discovery, and our homecoming parade, as well as several elementary school events. We ran our Making A Difference (MAD) summer camp for the first time since the pandemic and held our annual fundraiser dinner where we showcase our robots and summer projects. In addition, we held several elementary school demos and middle school sessions teaching design, engineering principles, and robotics.

# Team 2996 Future Plans

# Executive Leadership

- Encourage growth in our technical abilities as we experiment with new designs.
- Develop and practice a habit of documentation as we prototype and learn from both past and present experiences.
- Stay committed and follow through with off-season projects.
- Facilitate communication between subteams during Build Season.
- Be kind when projects become challenging, and always work to include new team member

#### Business Subteams Future Plans Awards

- Have a first draft of the FIRST Impact Essay completed before Build Season begins.
- Start the Woody Flowers entry by week two of Build Season.
- Communicate with the Media & Marketing subteam to begin the FIRST Impact video earlier in Build Season.
- Utilize the talents of the entire subteam.

# Community Outreach

- Continue to build relationships at demos and make STEM activities a priority.
- Teach all members how to run a demo if a VP is not present and develop their leadership skills.
- Increase attendance for each demo and incorporate all subteam members so the VP does not run everything.

#### Finance

- Strengthen and establish relationships with sponsors so we have a steady income year-to-year.
- Host an increased number of fundraisers that bring in more money for the team
- Expand the subteam and delegate tasks to group members.
- Start the business plan earlier in the year during pre-season.
- Expand the Business Exchange to the Utah or Oklahoma Regional.

## Marketing & Media

- Create videos that will more accurately showcase our fun team dynamic.
- Generate quality content that expands our audience and portrays all aspects of our team.
- Make "awesome" logos that fit the theme of each seasons' game.

## Social Media & Website

- Continuously improve and update the team website to make it as functional, simple, and aesthetically pleasing as possible while still accurately representing Team 2996.
- Properly develop the mobile version of the team website to provide access and functionality for all devices.
- Upload content often enough to keep our community interested in our team year-round.
- Maintain relationships with other teams by interacting with them over social media.

# Technical Subteams Future Plans Electronics

- Guarantee the stability of all electronic systems in the robot.
- Facilitate inter-subteam communications in order to minimize electronic safety concerns.
- During competition, provide reliable batteries without fail.

#### Manipulator

- Utilize pre-season to teach students how to correctly use tools and machinery.
- Have better organization during pre-season and Build Season.
- Retain technical knowledge among returning subteam members.
- Create a process for making prototypes before building final products.
- Create a turret design.

#### Mobility

- Compile more educational resources for future members.
- Teach proper design processes and tool usage in pre-season.
- Dedicate time to practicing climber designs, not just focusing on drive chassis.

#### Programming

- Integrate all subteam members into pre-season projects.
- Develop better documentation habits and methods.
- Use pre-season to teach both new and returning subteam members the fundamentals of programming.

#### Special Projects

- Preserve consistent attendance among subteam members.
- Maintain organization and scheduling throughout Build Season.
- Stress attention to detail.

#### Systems Integration

- Increase inter-subteam communication to ensure the accurate designing of robot parts.
- Teach CAD to more members, not just students on this subteam.
- Design a better-integrated robot.

# Contact Information

# Website

• team2996.com

## Team Email

• cougars.gonewired@gmail.com

## Social Media

- facebook.com/cougarsgonewired
- twitter.com/frc2996
- instagram.com/cougarsgonewired
- youtube.com/frc2996
- firstinspires.org/
- https://www.thebluealliance.com/team/2996
- https://www.linkedin.com/company/cougars-gone-wired

# Head Coach

Bryce McLean
Email: bryce.mclean@d11.org
Phone: (719) 328-4093

## **Team Meeting Information**

Coronado High School
Off-Season – Wednesday, 6:00 PM - 8:00 PM
Build Season – Tuesday through Friday, 5:00 PM - 8:00 PM; Saturdays, 8:00 AM - 5:00 PM

## Sponsorship Information

- Checks should be made payable to "Coronado High School"
- Mailing Address:

Coronado High School Attn Bryce McLean 1590 W. Fillmore St. Colorado Springs, CO 80904 Federal ID Number: 88-2961450- 501(c)(3) available