Table of Contents

Executive Summary

Cougars Gone Wired Mission Statement

FRC Team 2996 Cougars Gone Wired (CGW) strives to combine a constant pursuit of knowledge with a commitment to the community and the expansion of FIRST. We aim to show gracious professionalism while developing our robots, at community events, through FIRST outreach, and our passion for STEM. Our dedicated team aspires to be a role model not only for FIRST teams, but for the next generation. This build season our students have created the motto: *To boldly build what no one has built before.* During the toughest time of build season we will stay focused, keep our spirits high, continue to innovate, and keep moving forward even when the vision isn't clear.

Team Origin

Eleven years ago, our head coach Bryce Mclean wanted to provide engineering students with a competitive outlet and a place to showcase their talents outside of school. He chose to move from being head coach of Varsity Football to head coach of Robotics. What began as 34 eager students at Coronado High School in Colorado Springs, Colorado has now grown into an enthusiastic student-led team of 65. Throughout the years, CGW has rapidly grown from building one robot to two and has increased its community service to 29 events. Two years ago at the Denver Regional, the team decided to create the Business Exchange, a forum where teams can present ideas, communicate challenges, and collaborate with other FIRST teams.

In the last year, CGW has vastly expanded. We hosted the largest FLL Qualifier in Colorado this year for the Southern region. Working with 48 FLL teams, we ran a successful competition for these kids and plan to hold it again this fall. Within our team, we have had a few different projects take off. Our CEO created a project management system that keeps leadership on the team accountable for their tasks. It has helped with organization and has spread throughout sub-teams. Our scouting system has also greatly improved this season. We created an app that connects to our scouting laptop, then generates and extracts data for teams and competition elements. As that program develops, it will help with strategy and team alliances at competition. On the technical side, we just built our own chassis and this will sustain us for a few years, as well as helping with training incoming team members.

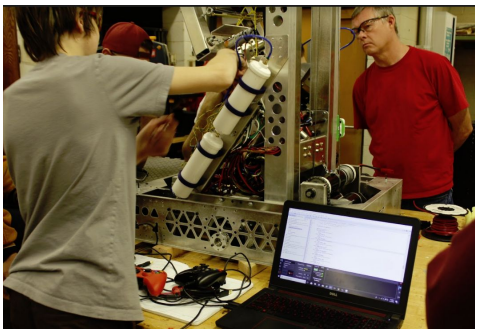
The Original Cougars Gone Wired - 2009

Relationships

When the fall semester comes around, Team 2996 hosts an annual barbeque at our high school. This is our way of inviting all students who vary in experience-level and to develop a positive community within our team.


Toward the end of the first semester, the entire team takes part in a 3 day “Mock Game”. This is a simulation of the first week of build season to prepare everyone for kick-off. Our mentors release a game that we need to figure out a strategy and a thorough robot design. This requires the team to collaborate and learn how to work together during build season.


Currently CGW has 20 mentors, many of whom are engineers, industry professionals, business owners, and educators. Many join our team through connections, and they develop a strong bond with our members. Every year they help the students by sharing experience and pushing us to think and work hard so we are always at the top of our game.


Sponsorships are acquired through demonstrations and company presentations, through which companies have stayed dedicated sponsors. The team's gratitude is acknowledged through advertisements on team shirts, robots, and at Cougars Gone Wired's statewide scrimmage. The Pikes Peak Chapter 356 of the National Association of Women in Construction (NAWIC) has been a dedicated sponsor for many years. Their first meeting is held at Coronado and we do a presentation for them to show them the improvements we make each year. They have taken our students under their wing and help and encourage us time and time again.

With some sponsors, like the charity organization B.P.O. Elks Lodge 309, relationships go past just donations. Along with being generous donors for several years, they allow the team to host a fundraiser dinner at their facility. In return, Team 2996 volunteers help them with grounds maintenance, charity events, and party preparations, creating a sense of community beyond the borders of the team and school.

Deployment of Resources

Our goal every year is to try to make STEM, FIRST, and Cougars Gone Wired household names. This is accomplished by engaging the community, our team, and potential future team members. This engagement is achieved during off season by traveling to different events around the city of Colorado Springs and surrounding areas. Some of these events include Cool Science at UCCS, Dinosaur Museum in Woodland Park, and different activities in elementary schools working with kids. At these events, the team holds “hands-on” demonstrations with past years’ robots.

CGW ensures all team members get the most of their FIRST experience by having a multiple sub-team structure. Team 2996’s large student and mentor base allows for students to participate in various projects throughout the year. During the summer the business sub-teams are busy planning community events and fundraising, while the technical teams focus on all things robot during build season. During competition, students on the scouting sub-team learn from other teams to discover ways to improve and grow the team.

We are fortunate to have support on our goal by D11 school district, Elk’s Lodge, multiple sponsors, and our amazing mentors. Some examples of this support include: D11 School District providing a vast work area consisting of a wood shop, empty auto shop area, two classrooms, and a gym to test our robot, build our practice field, and hold our scrimmage. The Elk’s Lodge provides areas to hold our fundraisers and demos of our robots. Our mentors allow us to grow in presenting, teaching, building, and planning the robot and our demonstrations.

Southern Colorado FIRST Lego League Qualifier

For the last few years, our team has participated in helping with this event. Cougars Gone Wired, for the first time this year, hosted the Southern Colorado FLL Qualifier at our high school. We welcomed 48 FLL teams to come, present, and compete. This was an amazing experience for all the kids who participated and our team loved helping spread passion for FIRST and STEM.

Risk Analysis

Strengths

- ❏ Student-Led Leadership - Our students are in charge of everything we do on the team and are the role models for the younger students. Team 2996's mentors are there as a resource for guidance so when we need help we can go to them for advice, but they do not do the work for us.
- ❏ Commitment to the FIRST community - Cougars Gone Wired works hard in the community to promote FIRST Robotics, spread STEM Education, and teach the younger generation.
- ❏ Family Atmosphere - Through team-building during pre-season, we construct new bonds and relationships that carry us through the year.
- ❏ Team Spirit - Our team is well-known for our members going all out in spirit at our competitions. Everyone wears our colors of red and gold proudly and our cheers separate us from the rest of FIRST teams.
- ❏ Cohesive Teamwork - During pre-season our team works very hard to build relationships and trust with one another. By doing this we are able to work as a team and communicate to accomplish our tasks.
- ❏ Communication - Individuals in their sub-team know their job and on a smaller scale we succeed with knowing what to do. We also have good team discussions where everyone is involved to express opinions, views, and present explanations to their ideas.

Weaknesses

- ❏ Organization - Occasionally there is some miscommunication within the team and meetings get a little unorganized. With so many team members, sometimes it is hard to reach a solution to a problem. Sometimes there is a lack of communication between the different sub-teams' organization systems, causing confusion and potentially causing newly-trained members to mess up the system.
- ❏ Losing Focus - Our members sometimes have tunnel vision and get to focused on one idea.
- ❏ Training - We train well for the conceptual part of our season with mock game but occasionally tools training gets put on the back burner because we do not do our safety test until build season, so any training is just watching, not doing.
- ❏ Meeting Deadlines - Periodically deadlines discussed with leadership fail to get communicated with the rest of the team, causing unnecessary confusion.
- ❏ Succession Planning - Some past VP's have not left any plans or resources for incoming leadership or the sub-teams, and it causes conflict and communication issues.

Opportunities

- ❏ Build Sub-Team Guides - this would be a solution for an easier transition when VP's leave their positions so the incoming sub-team is not left hanging.
- ❏ Structured To-Do List - This would help us do a better job of meeting deadlines and have a better sense of organization.
- ❏ Refresh and Renew Team Structure - We need to break old habits on our team, and we need to get away from constantly using past years as a template for everything we do.

- ❏ Project management - Every person on leadership has a new management system where they are able to publicise plans so all members know what's going on, and they are held accountable for their deadlines.

Threats

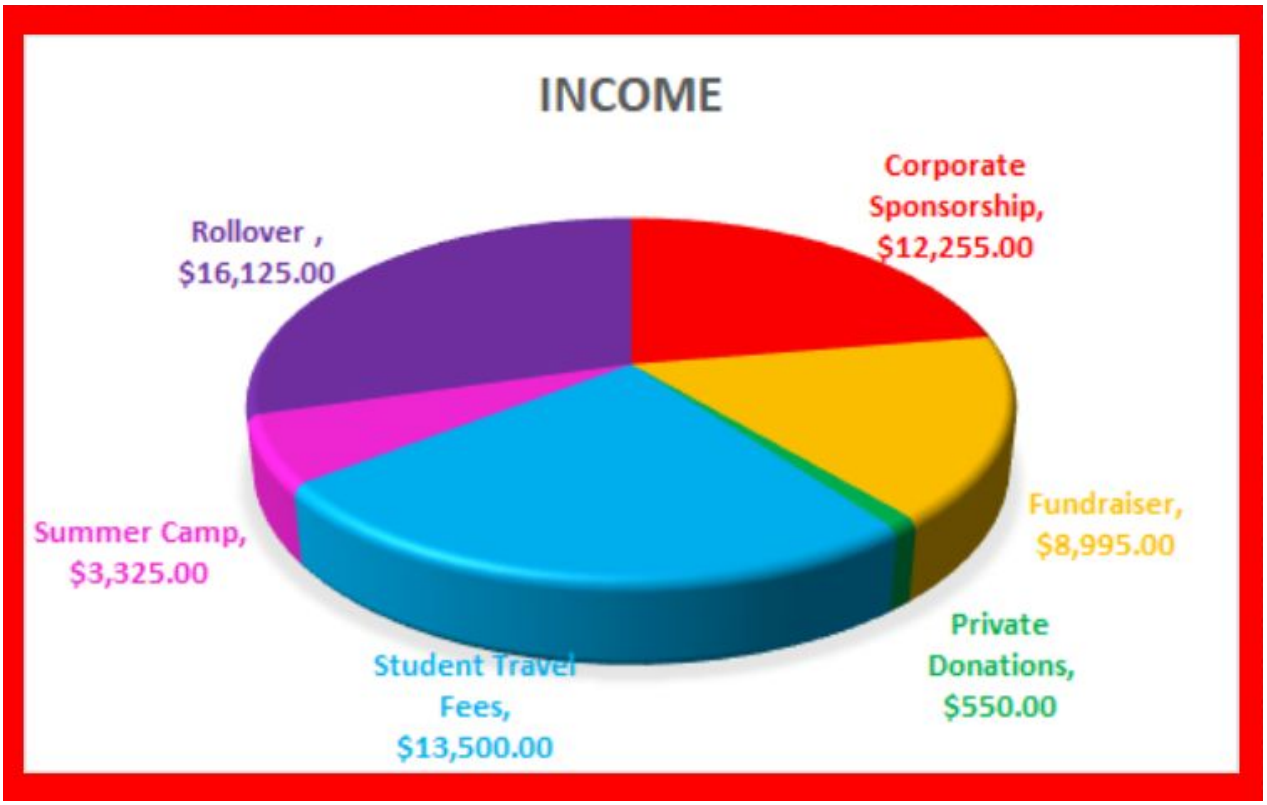
- ❏ Over-ambitious - Team 2996 is wired to be competitive and our goals are often set too high and we are unable to reach them due to multiple variables.
- ❏ Stuck in old ways - We have had several successes in our teams history, but over time things need to be changed and updated, and we struggle with change.
- ❏ Turnover - We need to make a smoother transition from VP to VP so there is no lost communication between sub-teams, and the incoming leadership can be prepared for their new responsibilities.

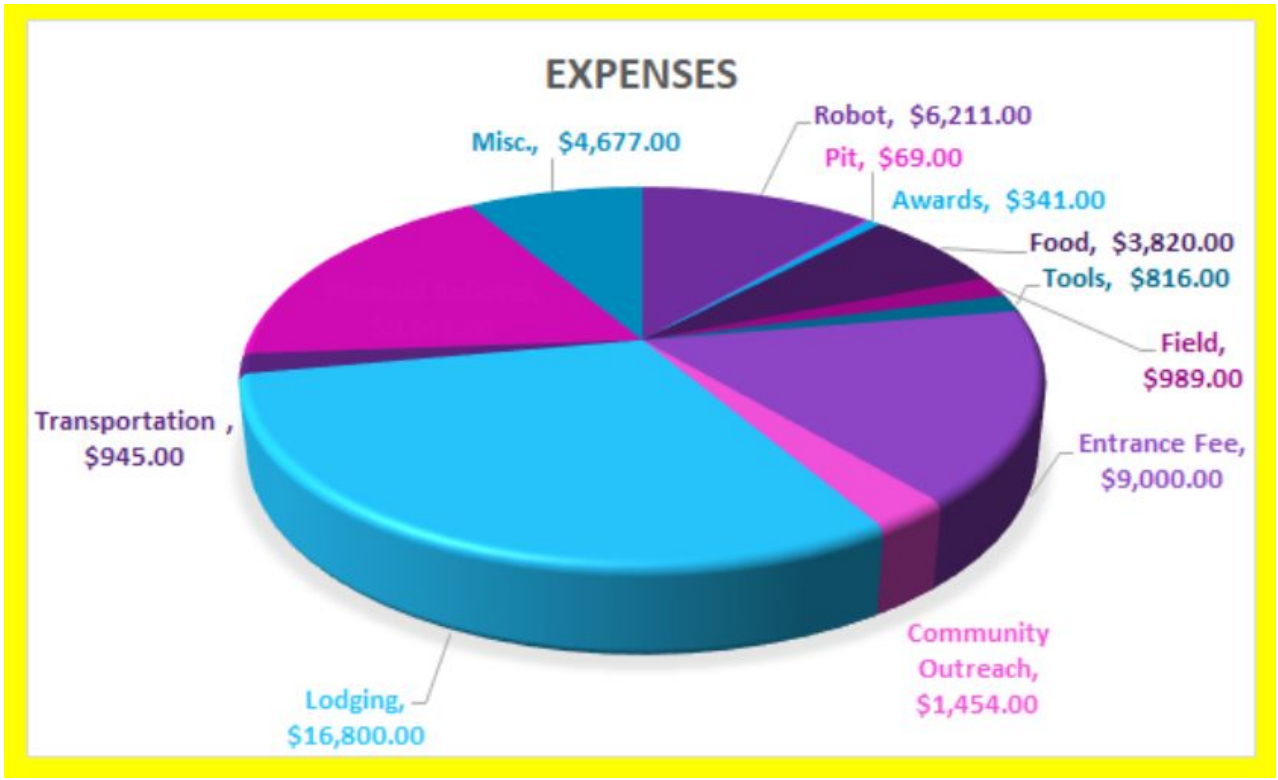
Risk Mitigation:

Team 2996 struggles with organization and planning, which can result in trouble with turnover from VP's from year to year. Our team needs a little more structure around deadlines, training younger members, and learning to change things up. If we can make these small changes, we could be a stronger team that meets our potential. This year we are implementing a project management system where all leadership members have individual sub-team tasks and deadlines scheduled. VP's are now held accountable for what they need to get done, and has added helpful structure for sub-teams to be fully aware of everything that is going on across all aspects of the team.

Financial Statement

We used last year's total team numbers so we could show you a full year of CGW's finances, as our year/season doesn't stop until the school year ends.





2018-2019 BILL OF MATERIALS

Item	Description	Material	Source	Quantity	Measurements	Unit Price	Total Price
Major System Names Here	*Describe the Part (Axle, Bearing, Lifter, Solenoid)*	*What is it made from*	*Where did you buy it (Home Depot, AndyMark, Supply House, etc.)*	*How Many*	*Piece, Inch, Etc.*	*Cost Per Unit ($)*	
Drive Base							
	3'x3'x.12" Aluminum 5052	Aluminum	Vertec	1	sheet	$95.37	$95.37
	1'x1'x.09" Aluminum 5052	Aluminum	Vertec	1	sheet	$17.93	$17.93
	2'x2'x.08" Aluminum 5052	Aluminum	Vertec	1	sheet	$47.72	$47.72
	42T Pulley	Misc	West Coast Products	8	pcs	$9.99	$79.92
	Mini CIM Motor	Misc	Vex	5	pcs	$29.99	$149.95
	160T Belt	Rubber	West Coast Products	4	pcs	$10.49	$41.96
	Single Speed Single Reduction Gearbox	Misc	West Coast Products	2	pcs	$59.99	$119.98
	6" DuraOmni Wheel	Misc	AndyMark	4	pcs	$35.00	$140.00
						Subtotal:	$692.83
Intake System							
	Thunder Hex	Aluminum	Vex	4	pcs	$15.99	$63.96
	Aluminum Hex Hub	Aluminum	Vex	5	pcs	$8.99	$44.95
	22T Sprocket	Steel	McMaster-Carr	1	pcs	$20.52	$20.52
	Round Key	Aluminum	McMaster	4	pcs	$7.99	$31.96
	550 Motor	Misc	BaneBots	2	pcs	$7.25	$14.50
	256:1 Banebot	Misc	BaneBots	2	pcs	$74.50	$149.00
	775 Motor	Misc	McMaster	2	pcs	$17.50	$35.00
	66T Sprocket	Misc	Vex	2	pcs	$15.99	$31.98
	16T Sprocket	Misc	Vex	2	pcs	$7.99	$15.98
	Compliant Wheels	Misc	AndyMark	6	pcs	$6.00	$36.00
	Yellow PLA 3D Printer Filament	ABS Plastic	Amazon	1	spool	$19.62	$19.62
	Black PLA 3D Printer Filament	ABS Plastic	Amazon	1	spool	$19.99	$19.99
	25 Chain	Steel	Vex	1	pcs	$11.99	$11.99
	35 Chain	Steel	Vex	1	pcs	$15.99	$15.99
	36:1 Banebot	Misc	BaneBots	1	pcs	$132.75	$132.75
						Subtotal:	$644.19
Pick-Up System							
	Round Key Hub	Aluminum	Vex	1	pcs	$8.99	$8.99
	32-T Sprocket	Misc	Vex	1	pcs	$11.99	$11.99
	12"x12"x.25" Acrylic Plexiglass Lucite	Misc	Home Depot	1	sheet	$15.99	$15.99
	12"x24"x.093" Clear Polycarbonate	Misc	Home Depot	1	sheet	$15.98	$15.98
						Subtotal:	$52.95
Electronics							
	Fiberglass Bidirectional Tape	Misc	Wick Aircraft	1	roll	$23.92	$23.92
	Carbon Fiber Uni Directional Tape	Misc	Wick Aircraft	1	roll	$59.85	$59.85

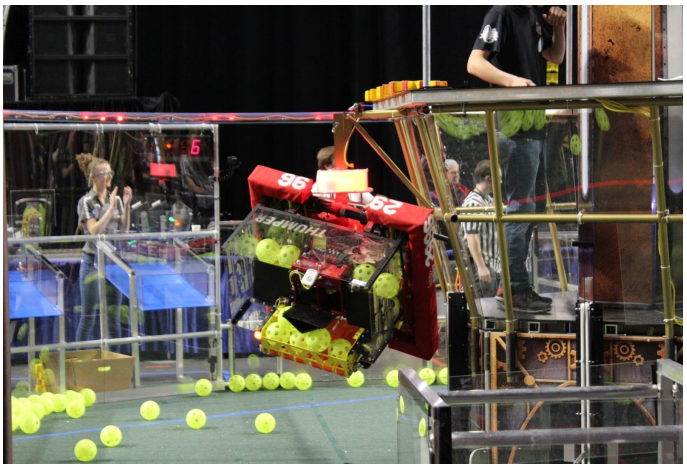
	Talon SRX Motor Controller	**Misc**	**CTR Electronics**	**11**	**pcs**	**$89.99**	**$989.99**
	Camera	**Misc**	**AndyMark**	**3**	**pcs**	**$32.00**	**$96.00**
	Radio	**Misc**	**AndyMark**	**1**	**pcs**	**$135.00**	**$135.00**
	NAVX	**Misc**	**AndyMark**	**1**	**pcs**	**$99.00**	**$99.00**
	Kangaroo Hub (USB)	**Misc**	**Best Buy**	**1**	**pcs**	**$29.99**	**$29.99**
	CAN Wire	**Misc**	**Powerwerx**	**1**	**spool**	**$10.50**	**$10.50**
	12 AWG 2ip Cord	**Misc**	**Powerwerx**	**1**	**spool**	**$40.12**	**$40.12**
	Limit Switch	**Misc**	**Vex**	**4**	**pcs**	**$12.99**	**$51.96**
	Kangaroo MD2B	**Misc**	**Amazon**	**1**	**pcs**	**$200.00**	**$200.00**
	Microsoft LifeCam HD-3000	**Misc**	**AndyMark**	**4**	**pcs**	**$32.00**	**$128.00**
	LED Ring, Green am-3597	**Misc**	**AndyMark**	**2**	**pcs**	**$9.00**	**$18.00**
	MB1013 HRLV-Max Sonar-E21	**Misc**	**MaxBotix**	**2**	**pcs**	**$35.00**	**$70.00**
						Subtotal:	**$1,952.33**
						Total:	**$3,342.30**

The Team - Team History

2018 - Power Up: Rocky

This year was extremely successful for our team. Although we didn't make it to World Championships, we did great in competition and were competing with world class teams that went on to win Worlds. Our biggest challenge this year involved batteries. Team 118 was more than willing to help us and we were given the opportunity to continue competing because they let us use their batteries during matches. This was amazing for our team and we were incredibly grateful for their generosity. 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 we have the potential to be a top 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 Vertec were delayed. Not having any parts, the team decided to modify the schedule. CGW took two days to rest then extended the weekday schedule by one hour; instead of meeting for three hours every night, we met for four. Once the parts were in and 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 gave the team the extra push it needed to get to Champions.

2016 – Stronghold: Underscore

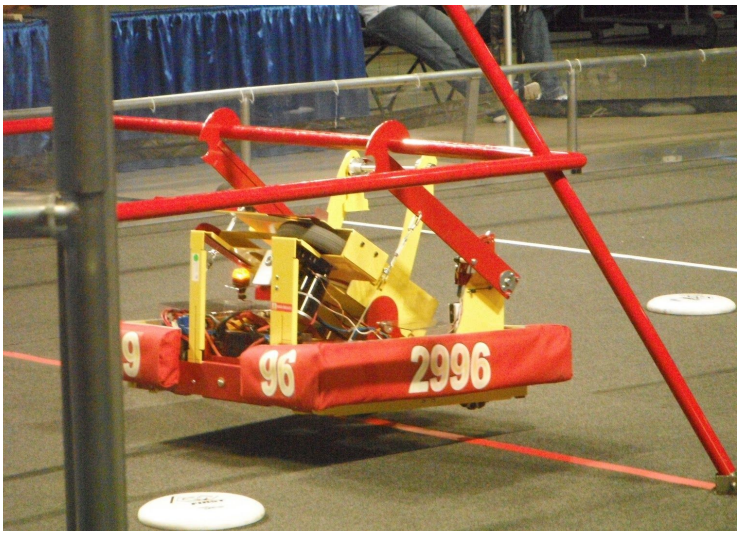
Bryce McLean returned as head coach, starting the season off with a feeling of optimism. However, a week of snow days created scheduling challenges. These challenges did not slow the team down and they were able to build a powerful robot. CGW attended a first year regional in Flagstaff, Arizona. This allowed the team to change their routine and connect with new teams. CGW won Engineering Inspiration award at their home regional in Denver, which carried them to Championships in the Carson division.

2015 – Recycle Rush: Gunther

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

2014 – Aerial Assist: Kirby

The team was incredibly successful as it was named both Regional Chairman's Award winner and Regional Winner at the Utah Regional, even though it was only intended as a practice regional. These achievements lead to a fun and enthusiastic second regional. CGW won the Colorado Regional Spirit Award and was ranked eighth in the Curie division at the Championship competition. Unfortunately CGW experienced a malfunction during a qualification rematch and finished out 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 further than any other Colorado team had before: the team made it to the semifinals in the Curie Division. The team was unable to continue competing due to a Jaguar failure mid-match.

2012 – Rebound Rumble: RDR

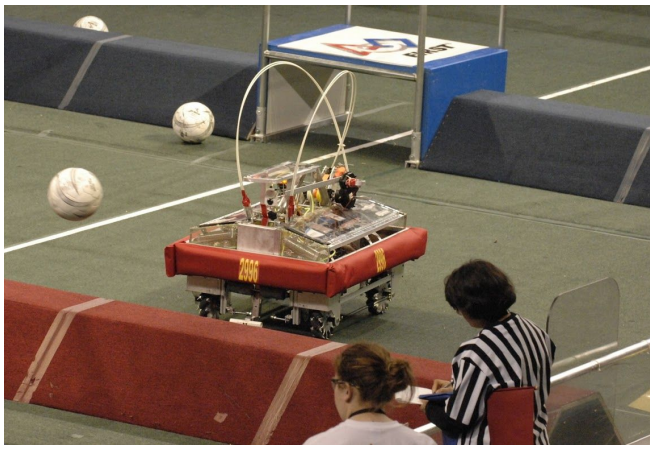
Going into its fourth season, CGW adopted a new plan from another FRC team: two identical robots, both built within the six week build season. The first robot was "bagged and tagged" and the second stayed behind. This gave the team extra time for driver practice, testing programs, resolving robot issues, and making improvements. This led to CGW 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 the 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 to 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 seventh 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 team's inexperience, the robot for 2009 Lunacy was built to be what the team jokingly called "Dozer" for its ability to do little but push other robots around on the field. Cougars Gone Wired (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. The team competed in the Newton Division of the Championship competition in Atlanta, Georgia.

Awards History

2018
- Utah Regional Imagery Award
- Colorado Regional Spirit Award

2017
- FIRST Dean's List Finalist, Madison Rutherford
- Utah Regional Creativity Award
- Colorado Regional Safety Award
- Colorado Regional Engineering Inspiration Award

2016
- FIRST Dean's List Finalist, Ryan Kight
- Colorado Regional Engineering Inspiration Award

2015
- Colorado Regional Quality Award
- Utah Regional Engineering Inspiration

2014
- Utah Regional Chairman's Award
- Utah Regional Winner
- Colorado Regional Spirit Award

2013
- Colorado Regional Finalists
- Kansas City Regional Imagery Award
- Colorado Regional Chairman's Award

2012
- FIRST Dean's List Recipient, Jasmine Kemble
- Colorado Regional Woodie Flower Mentor Award, Mr. David Murphy
- Colorado Regional Award
- Colorado Regional Entrepreneurship Award
- Kansas City Regional Spirit Award

2011
- Kansas City Regional Entrepreneurship Award
- Colorado Regional Chairman's Award
- Colorado Regional Woodie Flower Mentor Award, Mr. Bryce McLean
- Colorado Regional Dean's List Finalist, Scott Von Thun

2010
- Colorado Regional Industrial Safety Award
- Colorado Regional Entrepreneurship Award
- Colorado Regional Excellence in Design Animation Award

2009
- Colorado Regional Website Award
- Colorado Regional Highest Rookie Seed
- Colorado Regional Rookie All-Star Award
- Colorado Regional Winners
- Colorado Regional Autodesk Visualization Award

Tracking Growth

Cougars Gone Wired has taken the time throughout the past ten years to celebrate successes, learn from mistakes, and expand our team's awareness throughout the community.

Cougar Gone Wired started eleven years ago and has grown in many ways. Throughout the years we have increased from one robot to building two. We increased our community service hours as well as collaborating with different levels of FIRST. Two years ago at the Denver Regional, the team decided to create the Business Exchange, a forum where teams trade ideas, learn from one another, and can build off of others innovation.

In our fourth year, we started our annual scrimmage. We wanted to give teams the access to a full scale field for testing their robots before bag-&-tag. CGW strives to grow the event by increasing the attendance and improving the overall efficiency and organization. This competition quality field is the only of its kind in Colorado.

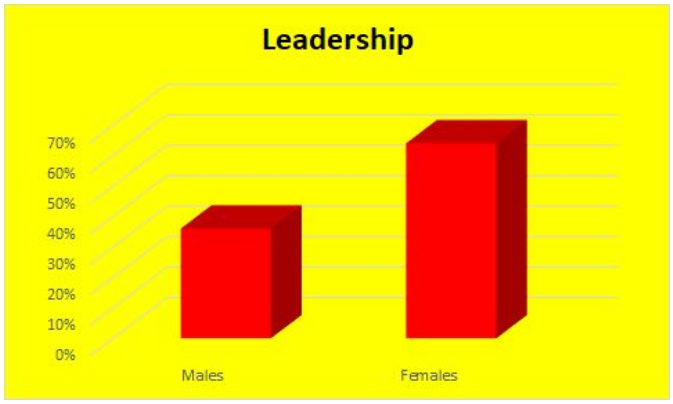
Over the past eleven years, Cougars Gone Wired had a large impact on kids getting involved in STEM and the FIRST programs. This is the result of recruitment efforts from our various community events such as Cool Science and the What If? Festival, and outreach demonstrations. The team has also increased FIRST involvement by reaching out to elementary and middle schools starting seven FLL Jr. teams across three schools. As of 2016, Cougars Gone Wired also hosts a VEX summer camp for incoming 7th-9th graders.

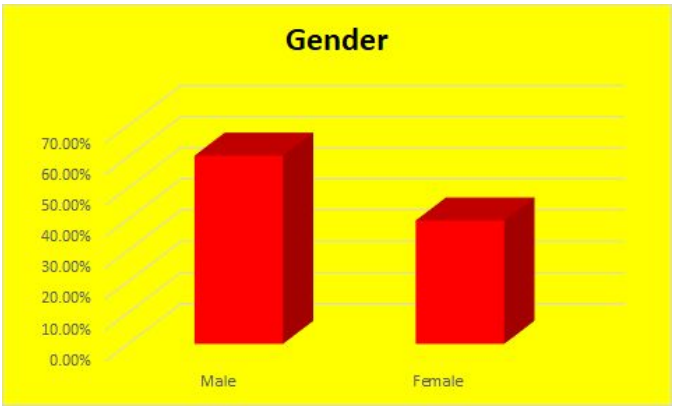
This year was our first year hosting the Southern Colorado FLL Qualifier. We held this competition at our high school and 48 teams were in attendance. This event was a huge success and our team was able to show the excitement we have for FIRST and share that with all the younger kids.

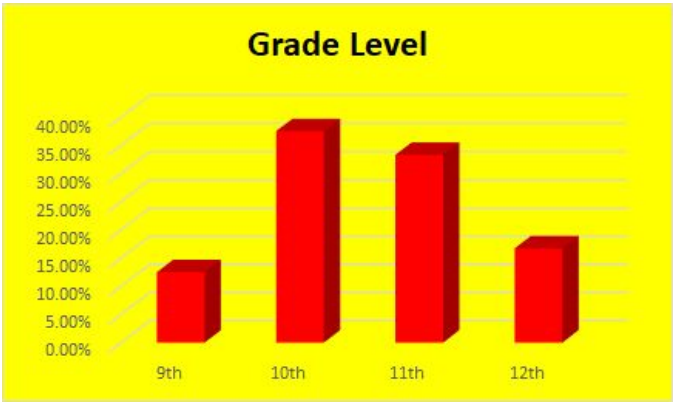
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Robot	1	1	1	2	2	2	2	2	2	2	2
Regionals	1	2	2	2	2	2	2	2	2	2	2
Outreach Hours	10	82	120	NR	NR	NR	164	146	4,358	2521	2687
Mock Game		1	1	1	1	1	1	1	1	1	1
Cougar Kibble				1	1	1	1	1	1	1	1
Scrimmage				1	1	1	1	1	1	1	1
FLL Jr. Teams					5	NR	NR	3	7	6	TBD
Business Exchange									1	1	1
FLL Qualifier										1	1
Scouting System										1	1
Project Management											1
Safety Awareness											1

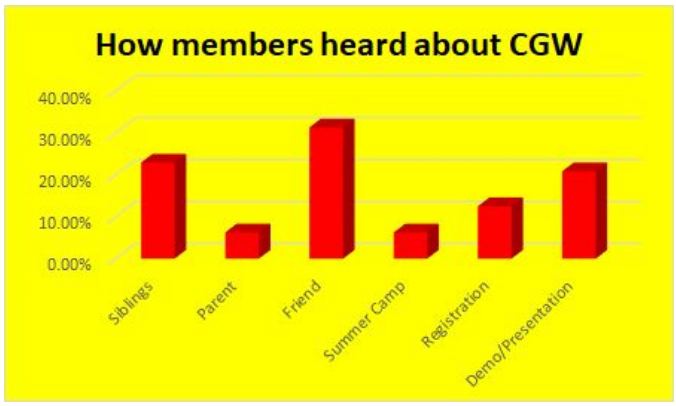
*In 2017, we began tracking man hours instead of outreach hours.

Demographics









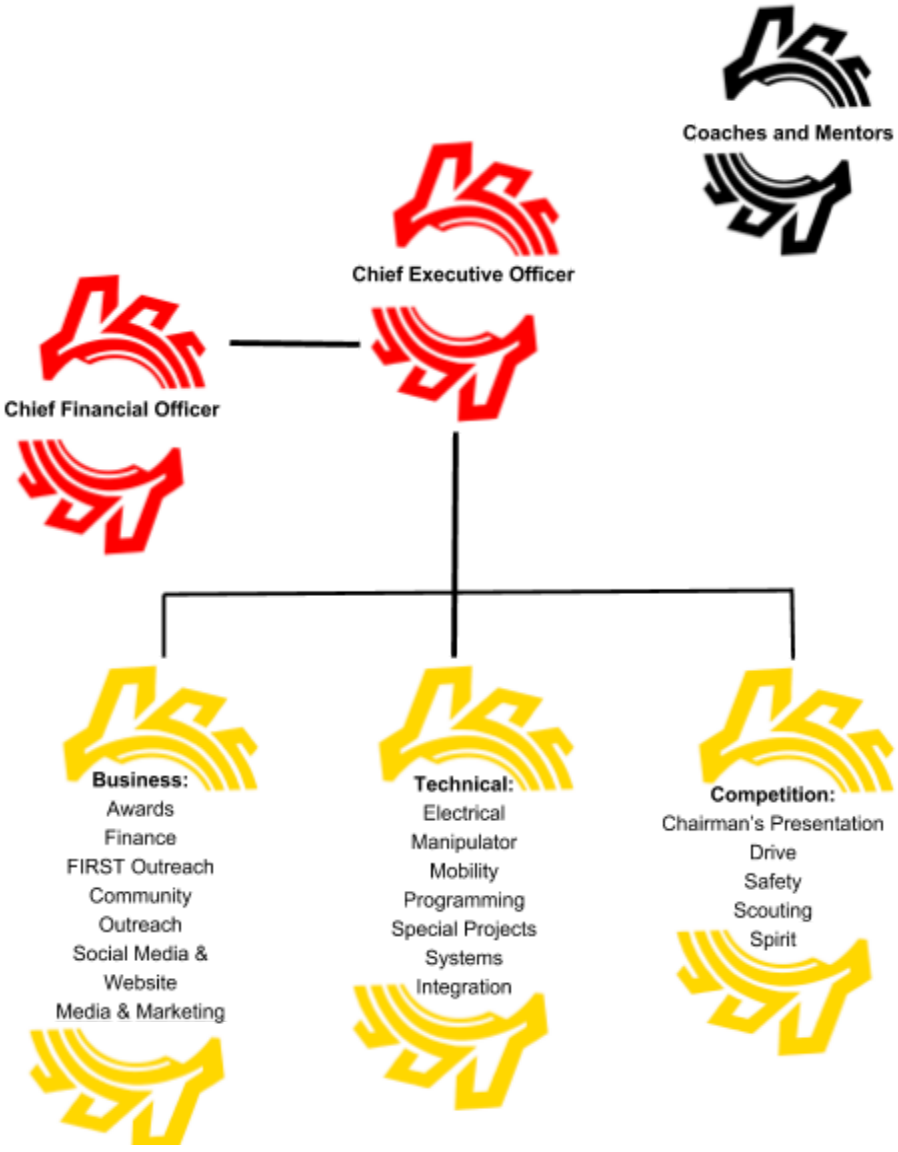
Organizational Structure

We have a CEO, CFO, and then are divided into sub-teams. There is a Vice President for each individual team, and their job is to take on the responsibility of completing tasks while teaching the other team members. Each student has a job and our coaches and mentors are strictly there to provide guidance and encourage us to think outside of the box, while the student's take charge.

Chief Executive Officer (CEO)
The CEO oversees the overall progress of the team. Much like the VPs, he or she makes sure the team's deadlines are met. They are the spokesperson for community events and sponsor presentations.

Chief Financial Officer (CFO)
The CFO is also the Finance VP. Responsibilities include finding potential sponsors, keeping relationships with existing ones, organizing presentations, and fundraising.

Coaches and Mentors
Coaches and mentors provide guidance and supervision to the team. They consist of engineers, industry professionals, business owners, and teachers. Mentors advise the team through the design, fabrication and construction of the robot. They assist but let the students make decisions that lead our team to success.



Student Leadership

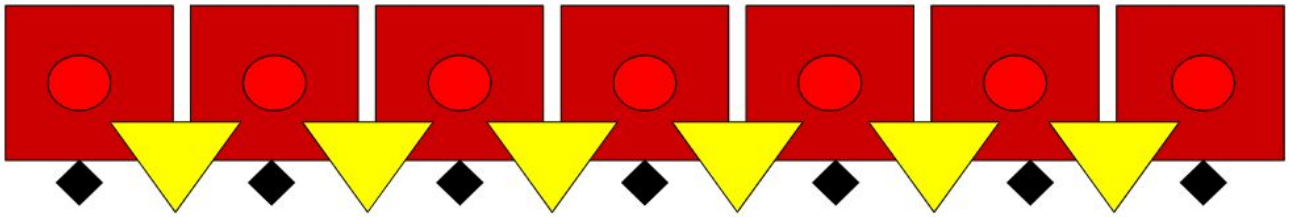
The FIRST experience inspires learning and growth as a team and as a business; encouragement of student enthusiasm for STEM always remains the highest priority. Cougars Gone Wired maintains a strict "student-led and mentor-guided" operation. The "hands-off" mentor build policy has paved the way for enduring student-mentor relationships and encouraging student growth in STEM.

Leadership Positions and Requirements

Sub-teams are led by VPs who are responsible for ensuring that goals are executed well and on time. They are required to exemplify good role-model characteristics, participate in all team activities, attend at least 85% of team events, and be present for weekly VP meetings.

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

Business leadership is selected in the spring to maintain community and STEM involvement throughout the summer. Technical leadership is selected in the fall to provide VPs with adequate time to train their sub-teams and prepare for build season.



Business Sub-Teams

Awards

The Awards sub-team applies for and submits all the awards each build season. The Chairman's Award and Woodie Flowers Award are the main focuses for this sub-team over the year. They create the Chairman's Video in conjunction with Social Media & Marketing and work on the essays, hoping to earn the award at competition.

Community Outreach

The Community Outreach sub-team organizes different robot demonstrations, volunteer events, and presentations in our community. This sub-team ensures that Cougars Gone Wired has everything it needs for these events and record when the event was, who attended, and calculate the team's total service hours.

Finance

The Finance sub-team is led by the Chief Financial Officer (CFO). They organize fundraisers, maintain sponsor relationships, write the Business Plan and prepare the Entrepreneurship Award. The Finance Sub-team organizes the sponsor presentation team and keeps information on current sponsors up-to-date.

FIRST Outreach

The FIRST Outreach sub-team works alongside the Community Outreach Sub-team, with focus on teaching demos to inspire a love of FIRST and learning in the next generation of FRC students. They organize and host the FLL Jr. showcase and the Southern Colorado FLL Qualifier.

Media & Marketing

The Social Media & Marketing sub-team is in charge of creating and updating the They post weekly summary videos and work with the Awards sub-team to create the Chairman's video and upload it to the team's YouTube channel. They are also responsible for designing the various graphics including tee shirts, logos, and posters.

Social Media & Website

The Social Media and Website sub-team is in charge of posting and updating the team's social media accounts (Facebook, Twitter, LinkedIn, Snapchat, Instagram) for students, sponsors, parents, other FIRST teams, and the community. They also maintain and improve the team's website, using Adobe Dreamweaver with html code.

Business Sub-Teams

CEO

CFO

- Anika H.
- Jacob H.
- Rygar S.
- Ethan H.
- Sabrina J.

Social Media and Website

- Gavyn M.
- Elizabeth G.

Community Outreach

- Bryce S.
- Gunnar V.
- Tyler W.
- Cat G.
- Ryan S.
- Joseph P.
- Sara C.
- Adiel D.
- Andrew M.
- Bryce VC.
- Ivy R.
- Andrew W.

Marketing and Media

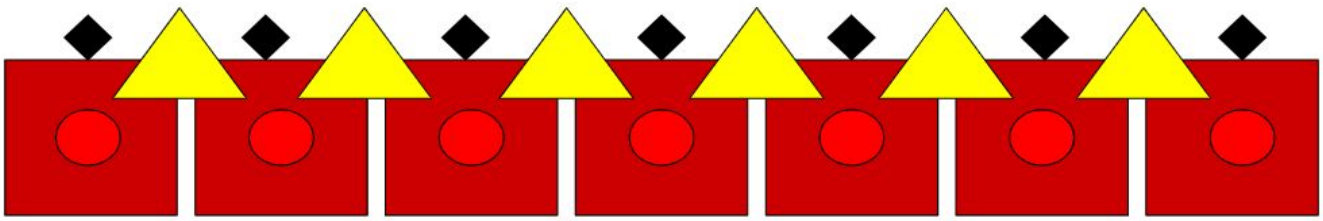
- Simon A.
- Emma H.
- Jordyn L.
- Caleb M.
- Ethan VC.
- Byron Y.
- Elia C.
- Sean K.
- Izaac L.
- Austin R.
- Noah R.
- Justin T.
- Andrea B.

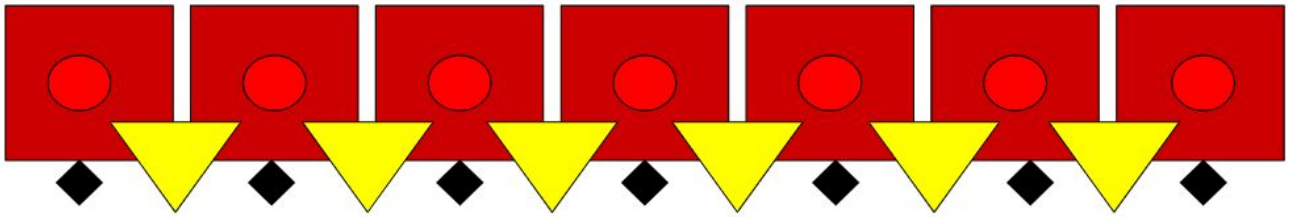
Awards

- Dylan R.
- Jamie M.
- Tyler S.
- Zakaryah S.

FIRST Outreach

- Josh L.
- William L.
- Daylan M.
- Logan P.





Technical Sub-Teams

Electronics

The Electronics sub-team designs the electronics board, wires the robot, and manages the pneumatics and batteries throughout build season and competition. They assure that all the electronic components are safe and can support the load of the motors, sensors, and actuators.

Manipulator

The Manipulator sub-team designs the part of the robot that interacts with the field. They design and deal with everything that manipulates game pieces and scoring.

Mobility

The Mobility sub-team designs and fabricates the drivetrain and chassis of the robot. Mobility ensures that the robot will move, whether its laterally on the field or vertically with a climber.

Programming

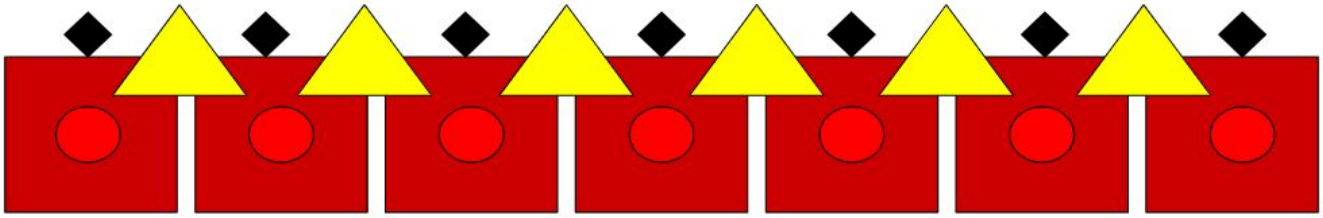
The Programming sub-team programs the 15 second sand storm period and all the processes in which the robot moves during the driver controlled tele-operated period.

Special Projects

The Special Projects sub-team builds a full-scale field for the CGW hosted pre-ship scrimmage and Denver Regional for practice. At all competitions, Special Projects builds and maintains the pit, as well as packs the crate.

Systems Integration

The Systems Integration sub-team ensures that all the separate systems from different technical sub-teams are incorporated into a single robot by creating a 3D model on Autodesk Inventor. The design is then sent to our sponsor Vertec, who fabricates the sheet metal needed to build our robot.



Technical Sub-Teams

CEO

Special Projects

- Simon A.
- Emma H.
- Ethan H.
- Jordyn L.
- Joseph P.
- Ethan VC.
- Byron Y.
- Sean K.
- William L.
- Austin R.
- Andrea B.
- Cat G.
- Anika H

Electronics

- Izsac C.
- Noah R.
- Justin T.
- Ryan S.
- Tyler S.

Programming

- Josh L.
- Rygar S.
- Jacob H.
- Gavyn M.

Manipulator

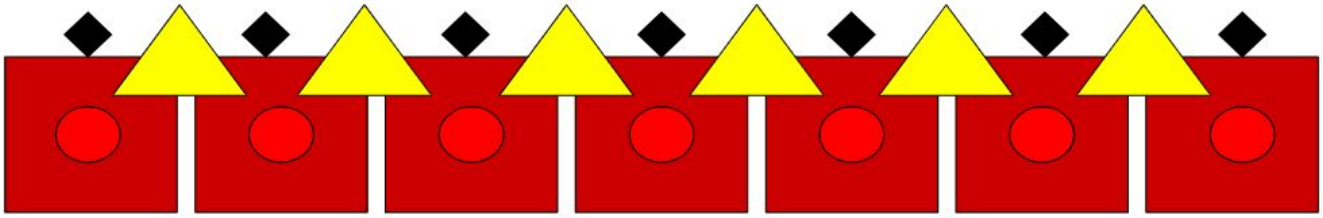
- Dylan R.
- Sara C.
- Brycen H.
- Bryce S.
- Andrew M.
- Bryce S.
- Gunnar V.
- Tyler W.
- Jamie M.
- Sabrina J.
- Ivy R.
- Andrew W.

Systems Intergration

- Caleb M.
- Elia C.

Mobility

- Adiel D.
- Izaac L.
- Daylan M.
- Logan P.
- Zakaryah S.
- Bryce VC.



Competition Sub-Teams

Chairman's Presentation Team

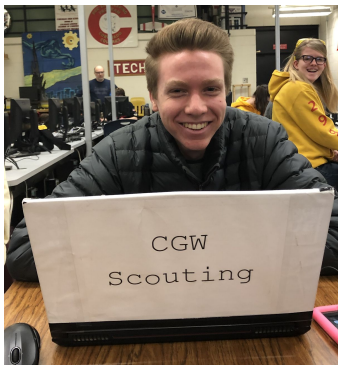
The Chairman's Team represents CGW in a formal presentation as part of the Chairman's Award submission. Comprised of six students, three presenters and three alternates, they must memorize a set presentation and deliver it coherently while dressed in formal business attire.

Drive Team

Drive Team consists of five students: driver, manipulator, human player, technician, and coach. These are selected through tryouts that occur during robot testing between the end of build season and competition.

Safety Captain

Safety Captain is responsible for assuring that the whole team demonstrates safe behavior while working in the shop and pit. They manage the safety binder full of information on hazardous materials and administer mandatory safety tests. At competition, the Safety Captain also presents the team safety plan to safety advisors.



Scouting Team

Led by a Scouting VP, the Scouting Team involves all of CGW. Their task is to compile match results at competition. This data is later used by Drive Team to determine match strategies as well as alliance partners for finals.

Spirit Captain

The Spirit sub-team is comprised of the entire CGW team. Led by the Spirit Captain, the volunteers design and organize spirit gear, signs, and team cheers. They are also in charge of teaching the entire team the "Mormon Dance", which is the dedicated spirit dance that Team 2996 is now known for. The spirit captain leads the team cheers providing support to all the members of Drive Team.

Competition Sub-Teams

CEO

Safety Captain

- Emma H.

Spirit Captain

- Samantha B.

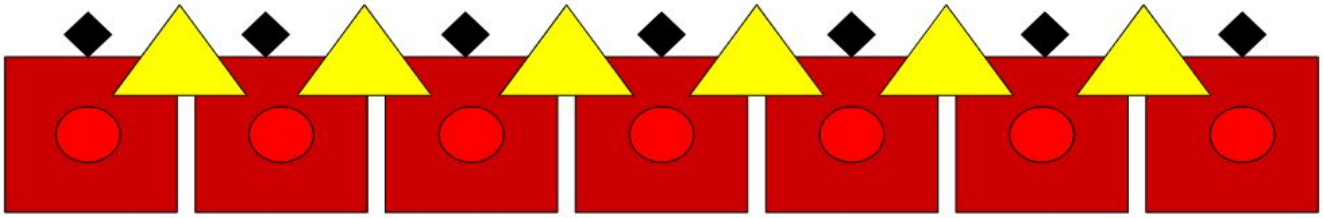
Drive Team

- Drive Coach Grace Schwarzenberger
- Driver
- Manipulator
- Technician
- Human Player

Scouting

Chairman's

- Carli K.
- Cat G.
- Maddie M.
- Naomi N. (Alternate)
- Andrea B. (Alternate).
- Daylan M. (Alternate)



Team LifeCycle

Community Service

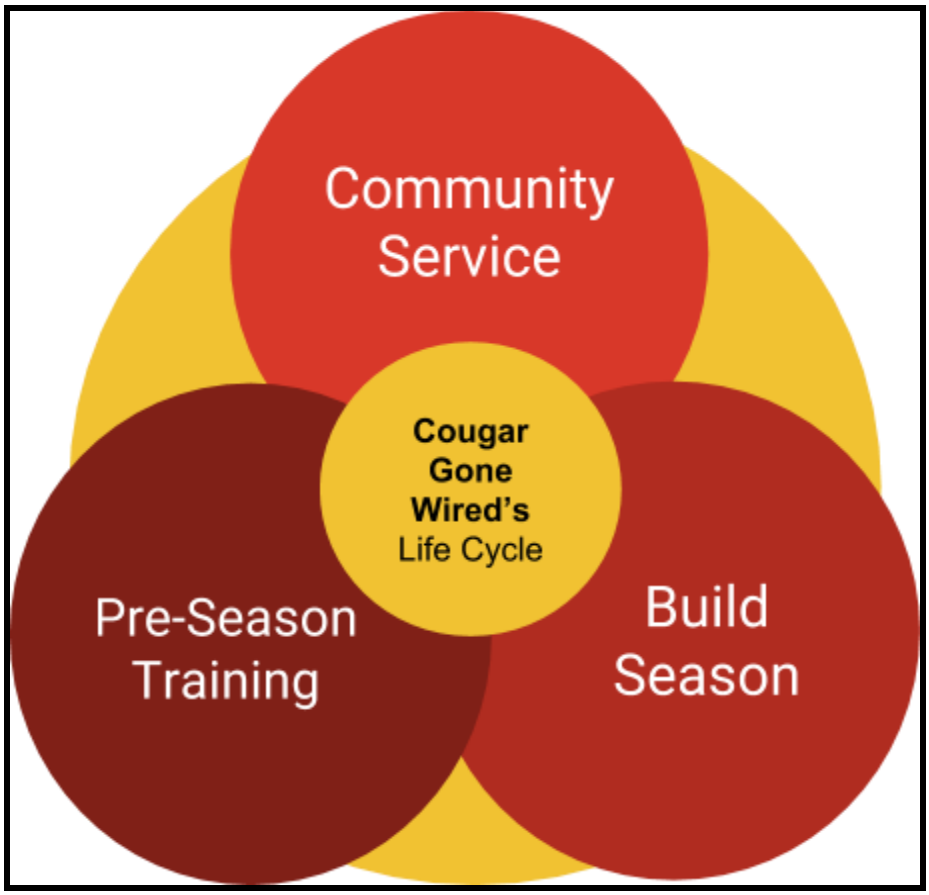
May to December the team's main focus is holding different demos and volunteering at various organizations all over our community. This is also a time to strengthen team member connections while at the same time strengthening the community.

Pre-Season Training

Between the months of August to December, the team is focused on growing, teaching, and developing. We use these months to create stronger inter-team relationships through different team building activities. This time period is used to team new members how to team runs and the basics of what goes on in different sub-teams. For members already set on a certain sub-team, technical VP's hold classes outside of regular team hours to educate members on fundamental and in-depth concepts in preparation for build season.

Build Season

The first Saturday in January is our official kickoff to build season. This six week period is an intense time where the technical teams 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. During build season,business sub-teams are hard at work writing essays for awards, building business plans, planning fundraisers, and scheduling on-going community service events.



Building Bonds

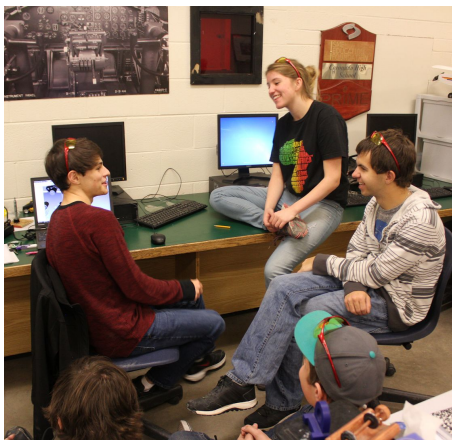
Team Bonds

Cougars Gone Wired is unique in the strength of the bonds formed between members, alumni, and mentors, along with the constant support between these groups, inside and outside of robotics. We are not just a team, we are a family.

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 outside of meeting hours weekly at Village Inn's Pie Rush Wednesday and movie nights/campfires hosted by team members. These events solidify the friendships between members while retaining and attracting new members to the Cougars Gone Wired family.

Alumni Bonds

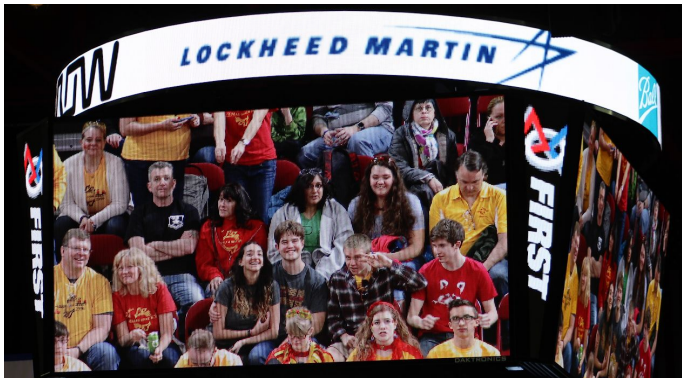
The team's family atmosphere encourages alumni to return and participate in kickoff, community outreach, team meetings, and competitions. Alumni are valuable to the team as mentors because they share their robotics experience, as well as their knowledge gained beyond high school.



Parent Bonds

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

Cougar Kibble has successfully fed our team of over 70 members and mentors every day of build season, including Saturdays. This program benefits the welfare of students, increases the productivity of work hours, and enhances the team's family atmosphere.



Mentor Bonds

Over the years, Cougars Gone Wired has been graced with dedicated and supportive mentors. The "hands off" mentor build policy has created an atmosphere in which mentors can guide and share their knowledge, while still allowing students to utilize their creativity and get hands on experience. Mentors endure the long hours alongside the team, solidifying the Cougars Gone Wired family atmosphere.

School District Bonds

Cougars Gone Wired's relationship with District administration has been utilized to spread FIRST and STEM within the community. D11 board members donate out of pocket to Cougar Kibble so meals can be provided daily for the students during build season. Cougars Gone Wired sets up displays at district events, such as the District 11 Career Fair for 8th Graders and various registrations at multiple high schools. Some of the ways the support is given is D11 School District provides us with a vast work area consisting of a wood shop, empty auto shop area, two classrooms, and a gym to build the robot, the practice field, and hold scrimmage. A relationship with Student Council allows for advertising and mutual fundraiser support, while a connection with the catering class has provided meals for the team's parent/sponsor appreciation night.

Colorado Scrimmage 2018 held at Coronado High School

Coronado Auto and Wood Shop

FIRST Bonds

Cougars Gone Wired stresses all values of FIRST especially Gracious Professionalism and Coopertition. All regional FRC teams are invited to the Colorado Pre-Ship Scrimmage, which is held the Saturday before Bag & Tag. This is a valuable opportunity to test robots and practice working in alliances. The 2018 Scrimmage was extremely successful, with 20 visiting teams in attendance from all over Colorado. After Bag & Tag, the field is then assembled on the Saturdays leading up to competition, and an invitation is extended to all teams to practice on it.

In the past two years, Cougars Gone Wired started 3 new FLL Jr. teams at both elementary schools and a local Boys & Girls Club. We mentored a total of 5 teams. At the end of the program, we hosted our seventh annual FLL Jr. Showcase at Coronado, where the kids show off their hard work and parents can learn more about FIRST programs.

Along with all of this, Cougars Gone Wired hosted for the first time the Southern Colorado FLL Qualifier. 48 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.

Started in 2017, the team decided to create the Business Exchange, 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

We have attended events all over Colorado including the Boys and Girls Clubs of Colorado Springs, different elementary and middle schools, and various STEM festivals. At these demos, the team encourages kids to drive the robots while also engaging in conversations with children, parents, and professionals to educate and attract them to STEM and the FIRST community. This year the team completed a total of **3295.8** hours.

Community Outreach 2018-2019 Season

Event	Category	Date	Hours
Tesla Library Technician Presentation	STEM Outreach	3/8/18	12
Buena Vista Elementary Demo	STEM Outreach	4/5/18	15
Girl Scouts	STEM Outreach	4/7/18	12
Coronado Campus Clean-up	Volunteerism	4/16/18 - 4/19/18 10/16/18 - 10/19/18	71.5
Empirical Sponsor Presentation	Sponsor	4/26/18	6
Madison Elementary STEM Day	STEM Outreach	5/4/18	64
Boys and Girls Club Demo	STEM Outreach	5/27/18	20
M.A.D. Robotics Summer Camp	STEM Outreach	6/4/18 - 6/8/18	260
Dinosaur Resource Center Demo	STEM Outreach	6/16/18	98.3
Old Colorado City West Fest	STEM Outreach	6/17/18	96
REACH Demo	STEM Outreach	6/26/18	36
Wounded Warriors Dinner	Volunteerism	7/12/18	44
Fountain Library Reading Party	STEM Outreach	7/13/18	15
Starbase Summer Camp	STEM Outreach	7/17/19	20
Therapeutic Recreation Center Demo	STEM Outreach	7/18/19 and 7/26/18	34
Whizbang Ice Cream Social	STEM Outreach	7/20/18	30
East Library Demo	STEM Outreach	7/27/18	22
Ronald McDonald House	Volunteerism	8/12/18	45
Elks Lodge Tiki Time	Sponsor	8/18/18	22
What If? Festival	STEM Outreach	9/8/18	304
Energy Day Event	STEM Outreach	9/21/18 - 9/22/28	376.5
Homecoming Parade	STEM Outreach	10/6/18	81
Cool Science	STEM Outreach	10/13/18	188
Audubon STEAM Presentation	STEM Outreach	10/18/18	28

Preparation for FLL Qualifier	Volunteerism	10/17/18	13
Safe Trick Or Treat	STEM Outreach	10/31/18	30
Elks Lodge Fundraiser Dinner	Sponsor	11/2/18	198
Southern Colorado FLL Qualifier	STEM Outreach	11/10/18	495
FLL Jr. Expo	STEM Outreach	12/6/18	45.5
Yule Ball	STEM Outreach	12/15/18	14
NAWIC Presentation	Sponsor	1/17/19	35
8th Grade Open House	STEM Outreach	1/24/19	21
Girl Scouts	STEM Outreach	1/26/19	9
Scrimmage	STEM Outreach	2/16/19	535
Total			3295.8

Future Plans

Executive Leadership

- Expand on a time management system and have VP's improve skills for their own management system to keep members on track throughout the year.

Business

Awards

- To start everything earlier, so have a first draft of the chairman's essay doen before build season begins
- Start the Woody Flowers entry by week one
- Communicate with the media sub-team to begin the chairman's video

Community Outreach

- Continue to build relationships at demos, and make STEM activities a priority
- Teach members how to run a demo if a VP isn't there and develop their leadership skills
- Improve attendance for each demo and have more members help out.

Finance

- Further relationships/build stronger ones with sponsors so we have a steady income year to year
- Have larger fundraisers that bring in more money for the team
- Expand subteam and have tasks to give out to members

FIRST Outreach

- To get members of the sub-team more comfortable with public speaking in a non-formal environment
- Improve new members' knowledge on team history
- Improve relationship with the Therapeutic Recreation Center

Marketing & Media

- Become more widespread within the community so more people know about who we are and what we do
- Teach photoshop to interested new and returning members so they can have a larger part in this sub-team
- Create own, original, music for our different YouTube videos

Social Media & Website

- Continuously improve and update the team website to make it as functional, simple, and aesthetically pleasing as possible, while still representing Team 2996 as best as possible
- to properly develop the mobile version of the website so it is as accessible and functional as possible for all devices and people
- to upload often enough to keep anyone and everyone updated on our team year round
- keep up our relationship with other teams by interacting with them over social media

Technical

Electronics

- Stay organized
- Design a plan to be prepared for any issues that may arise during competition

Manipulator

- Utilize the preseason to teach students how to correctly use the tools
- Stay organized during the preseason

Mobility

- Create a more concrete plan of base building
- Teach proper tools during build season
- 2 types of gear boxes

Programming

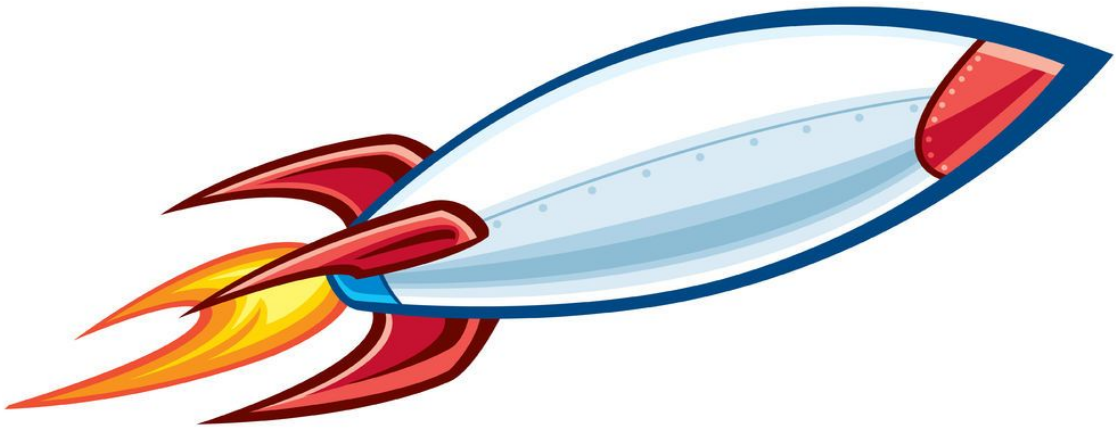
- Create a more refined and tuned way to educate members
- Have better tuned management
- Have returning members work on preseason projects

Special Projects

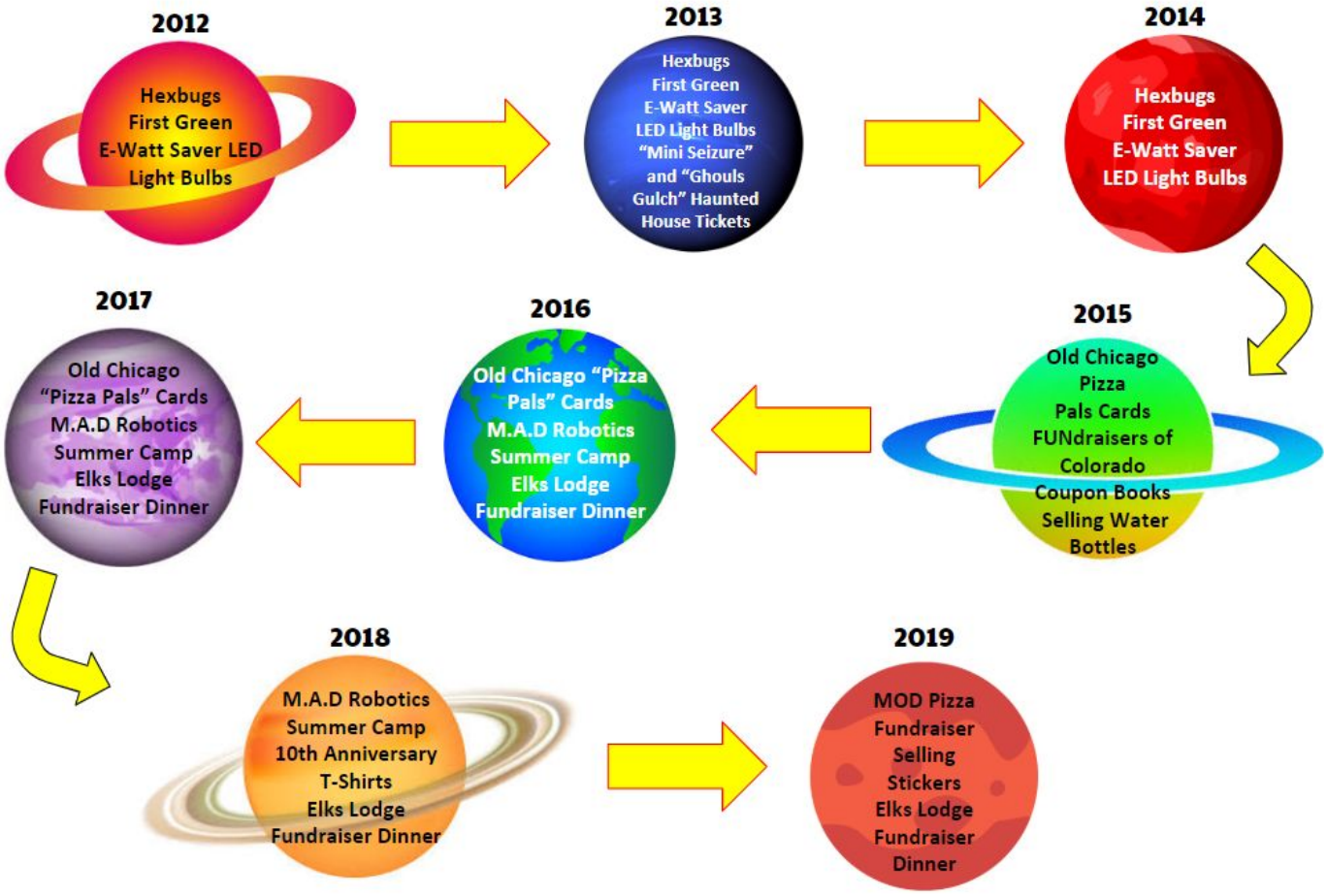
- Conduct the safety test earlier so that training can commence right away
- Maintain organization

Systems Integration

- Try to get more member to join the sub-team
- Increase communication between the different sub-teams to ensure that we are correctly designing their parts



Team Fundraising Growth



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

Main Contacts:

- Bryce McLean
  Title: Head Coach
  Email: Bryce.mclean@d11.org
  Phone: (719) 328-3759

Team Meeting Information:

- Coronado High School
  Off Season – Wednesdays from 6pm to 8pm
  Build Season – Monday through Friday from 5pm to 8pm, Saturdays from 9am to 4pm

Sponsorship Information:

- Checks should be made payable to “Coronado High School”
- Mailing Address:
  Coronado High School
  1590 W. Fillmore St.
  Colorado Springs, Colorado 80904
- Federal ID Number: 84-600-1179
- 501(c)(3) available