

1. Describe the impact of the *FIRST* program on team participants within the last 3 years. Think about percentages of those graduating high school, attending college, in STEM careers, leadership skills, and serving as mentors/sponsors in *FIRST* programs.

In the past 3 years, 100% of our alumni have graduated high school. 97% of our current members are enrolled in or plan to attend a college or university, and 97% intend to work in a STEM field. We are student-led by a CEO and 12 VPs, which provides hands-on leadership experience. 85% of our students hope to serve as FRC team mentors in upcoming years. (353)

2. Describe your community along with its unique opportunities and circumstances. Think about your geographic region, diversity of town/school, language barriers, socioeconomic barriers, and cultural expectations.

Nearly half of our district's educational institutions are composed of twice the national average of Hispanic students and are Title 1 funded. Because of our low income profile, many students may not have access to STEM programs, so our team brings new opportunities to these schools.

As of 2021, there are 145,000+ active duty military and veteran personnel in Colorado Springs, so our community is very STEM oriented. Our team supports our local STEM industries by creating future engineers. (492)

3. Describe the team's methods, with emphasis on the past 3 years, for spreading the *FIRST* mission in ways that are effective, scalable, sustainable, and creative.

Because we are the only *FIRST* robotics team in our school district, it is crucial we reach out to other schools. In the past three years, we have run or supported events at 13 elementary schools from our district, a number we are increasing. We are currently assisting a middle school robotics team and joining in multiple community events to exemplify a positive STEM influence in all settings. (390)

4. Describe your team's goals and the progress you have made towards them to fulfill *FIRST's* Vision.

INCREASING ELEMENTARY OUTREACH

We have communicated with the principals of more than a dozen additional elementary schools in our district to develop new connections to demo our robot and teach STEM concepts.

CENTS FOR STEM STATE BILL

Since a recent election caused a turnover in the state legislature, we are seeking new sponsors. To expedite the process, we drafted the bill ourselves.

IMPROVING MAD CAMP

We plan to update Level 2 of the camp based on results from our first offering last summer. (496)

5. What impact has your team seen from your efforts described in the above question? How does your team measure impact?

INCREASING ELEMENTARY OUTREACH

So far, 4 of the new schools contacted have responded with interest in our programs and are planning future dates to visit.

CENTS FOR STEM STATE BILL

We received a promising response from a potential sponsor, but continue to develop relationships with fellow FRC teams to gain support.

IMPROVING MAD CAMP

Level 2 was a huge success last summer, so we expect larger attendance in future years, expanding our impact. (443)

6. Please provide specific examples of how your team and team members act as role models for the *FIRST* community with emphasis on the past 3 years. How do you share these best practices with other teams?

We introduced the Business Exchange to the Colorado Regional in 2016, an event we continue to run to this day. The Exchange is a socratic seminar to discuss FRC team business strategies, and has created long lasting partnerships and friendships among our fellow FRC teams. Last year, we were a featured team on the Open Alliance, which serves as a hub for the FRC community to exchange ideas, discuss challenges, and collaborate on design. (439)

7. Describe your team's initiatives to Assist, Mentor, and/or Start other *FIRST* teams with emphasis on activities within the past 3 years.

CGW annually runs the Colorado Scrimmage, which gives teams full access to our field and shop, offering opportunities for driver practice and robot modification. We conducted tours of our facilities with Teams 662, 8324, and 4674 and also visited Teams 1778, 359 and 2910 to exchange ideas. Furthermore, we worked with Team 2412 on our legislative advocacy project. We are also members of Colorado *FIRST* Connect, a program designed to provide advice for our fellow FRC teams. (475)

8. What other initiatives have you created, grown, sustained, or participated in (*FIRST* or otherwise) to help inspire young people to be science and technology leaders and innovators? What outcomes have you seen from your efforts in the past 3 years?

CGW supported the U.S. Department of Education White House Initiative on Black Americans, presenting the Power Up Summit Series with a focus on STEM. To do this, we traveled 67 miles to Manual High School in Denver to showcase our robot and present STEM opportunities to hundreds of high school students while representing *FIRST*. We also brought along some of our own field pieces to create an area for the robots to drive on. (426)

9. Describe the partnerships and relationships that you've created with other organizations (teams, sponsors, educational institutions, government, philanthropic entities, etc.) and what you have accomplished together, with emphasis on the past 3 years.

Our team connects with engineering companies and sponsors by visiting their facilities, where students learn how professionals work in industry. We provide an overview of our team, *FIRST*, and our business practices through multiple presentations each year, and share how their support has built progress and success. The final demonstration is our Parent/Sponsor Dinner, where we unveil our competition robot. Through these partnerships, we strengthen community outreach and industry ties. (489)

10. Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, *FIRST*, and your communities.

CGW works hard to overcome accessibility barriers in STEM activities. Anyone, regardless of experience, is invited to join the team. We provide accommodations for students who have mental and physical disabilities, and offer scholarships to attend regionals. We also support an elementary Girls Who Code Club to inspire young girls to be active in STEM, and have been a part of Colorado *FIRST* Student Advocacy for several years to advance equity. (446)

11. Explain how you ensure your team and the initiatives you have created will be sustainable.

VP selections take place before the season begins, giving predecessors time to transition ideas and lessons learned to new leaders before jumping into the season. Our outreach-specific subteam ensures initiatives are sustained through seasons, as each VP trains their successor. We advertise our team within our school and hold a fall barbeque to welcome new members and their families. Our MAD Summer Camp is advertised at all our outreach events. (442)

12. Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.

We need to improve our idea development, research, and testing methods. This season, we spent less time brainstorming and used online research to bolster our ideas in order to focus on rapid prototyping. This change of priority has allowed us to identify possible subsystems by week one, develop a basic geometry of the robot by week two, and fabricate a functional prototype robot by week three, which allows us time to test, adjust, and iterate earlier than originally planned. (479)

13. Briefly describe other matters of interest to the *FIRST* Judges, including items that may not fit into the above topics. The judges are interested in learning about aspects of your team that may be unique, particularly noteworthy or had a large impact.

COMMUNITY

Parents make dinner for the team through Cougar Kibble throughout build season. This allows families to be involved and strengthens team relationships as we eat together.

SPIRIT

We are famous for our team dance, which we teach other teams as they join us on the floor. CGW inspires a sense of camaraderie, engaging everyone in Gracious Professionalism and Coopertition. Often the loudest team at competition, we have won the Spirit Award 7 times overall, twice in the past 3 years. (490)

14. Question for the judges

What are the three biggest trends in business and outreach you have seen in FRC teams in the past five years?