Chairman's Award - Team 7428

Print Close

2021 - Team 7428

Team Number

7428

Team Nickname

Gigawatts

Team Location

Fort Payne, Alabama - USA

Describe the impact of the *FIRST* program on team participants within the last 3 years. This can include but is not limited to percentages of those graduating high school, attending college, in STEM careers, and in *FIRST* programs as mentors/sponsors.

FIRST instills a passion in its members for lifelong learning and a fearlessness to tackle any challenge. Once shy students have become leaders among their peers. Confidence in ourselves drives us to achieve our goals. We started with a Lego EV3, now we are building a robot that can launch balls across a room. We have impressed our community with our passion to make the world better. We are a young team that will not have alumni until 2022, but we are building the successful leaders of tomorrow.

Describe your community along with how your team addresses its unique opportunities and circumstances.

The primary threats in our SWOT analysis come from the economic downturn in our rural city. Once known as the "sock capital of the world," Fort Payne's economy declined greatly from textile outsourcing. We address this by creating relationships with local businesses based on the fact that FIRST is training their future workforce. We write grants to supply funding from registration to equipment. We have raised over $60,000 for our team. We may be a small city, but we shine like a metropolis.

Describe the team's methods, with emphasis on the past 3 years, for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?

Our passion for outreach started in our FLL days. Outreach includes demonstrating at high profile events, showcases, and training seminars. Our goal is to reach areas that do not have a FIRST team. We present to various educational organizations, schools, and businesses. We have seen over 20 teams in all levels of FIRST start after these events. Our team maintains a solid presence on several social media platforms, and updates our community on our journey frequently.

Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.

Our team represents FIRST as a model of gracious professionalism and coopertition. We have seven members actively coaching FLL teams. We believe in the program and the value it has. We want to help others experience it too. We taught a robotics class for urban Birmingham schools at the McWane Science Center. Prior to Covid we began hosting double qualifiers for 32 FLL teams. In addition, our team began serving critical volunteer roles at other qualifiers and the state competition.

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

The Gigawatts have seven team members that are coaching three FLL teams. In addition to this, we were asked by FIRST in AL to mentor a new FRC rookie team. We have provided an AndyMark kit to learn with and recorded videos to help them along their FIRST journey. In addition, we are assisting two other FRC rookies teams as they start competition for the first time. We have conducted training at the AL Coaches' Workshop and are working towards creating COVID-safe workshops and demonstrations.

Beyond starting teams, what initiatives have you done to help inspire young people to be science and technology leaders and innovators? What results have you seen from your efforts in the past 3 years?

We've hosted showcases and exhibitions throughout Alabama. At these events we have attracted the attention of parents, educators, and kids. We held an FTC Kickoff event in south Alabama for the first time. We have since seen two FRC teams start from their interest in our demonstration. We also feel that Birmingham is a great region for FIRST. We participated in Mcwane Science Center's Engineering Day. We also plan to present at the AL Educational Technology Conference to thousands of educators.

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

The Gigawatts established key partnerships with local companies GH Metal Solutions, Siemens, and Fort Payne Steel to provide funding, mentoring, and machining services. Our unique enthusiasm and determined efforts attract the best mentors. This list includes NASA Scientists, Leidos Software Developer, aerospace engineer, arts teacher, and mechanical engineers. Our capabilities have grown exponentially due to their teaching. Grant writing has awarded us over $20,000 each of the past three years.

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

FIRST has left such a lasting impact on our lives, and we want to pay that forward to as many people as possible. Our school has a large Hispanic and Latino population and we want them to represent. We have recruited several members, but one stands out. Hecould not speak english, but had wanted to join. He is now one of the lead mechanics on this year's robot. This story is the heart of our beliefs in inclusion. We celebrate everyone on our team, at competitions, and at outreach events.

Explain how you ensure your team and the initiatives you have created will continue to run effectively for the foreseeable future

We have convinced our school system of the value of FIRST. Our program impacts over 70 students from 2-12 grade with plans to encompass 40 more within the next year alone. We set an example of "the hardest fun you will ever have" at a young age. We have designed our program with sustainability in mind. Current Gigawatts mentor the next generation and become role models of what they can accomplish with FIRST. As each class graduates, we have a new group of eager minds ready to jump in.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

We have discovered that our sponsors are not looking for perks. These generous investors want to see their donations be effective. Our strategy is to amaze sponsors with what we can accomplish. When a sponsor can see the value in what they are contributing to, they are happy to continue support. We excel at showcasing what the team is learning. It is a powerful moment to have sponsors see our awards and skills on display and realize they wish they could have done that when they were in school.

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

Our SWOT analysis will show programming as our main weakness. Our team came from FLL so we had some programming logic and use with EV3 programming. In the transition to FRC, we knew we would need help to learn Java. We recruited a software developer to mentor us that first year. Since we have recruited five student programmers and our mentor provides us training in person and through virtual courses. We continue to learn as we tackle new coding challenges.

Describe your team's goals to fulfill the mission of *FIRST* and the progress you have made towards those goals.

Before the Gigawatts, robotics was only something found in industry. We have changed that definition. Now, you hear people say "Hey, you are one of those robotics kids, that is some great stuff y'all are doing. I wish they had that when I was in school." Our goal is to be the change we want to see in the world. We are actively promoting a vision to show how a robotics team can build the next generation of leaders and STEM professionals. We are making a difference in our school and community.

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 or particularly noteworthy.

Parents. We feel that we should mention what is probably the most important cog in our machine. Our parents do so much. They provide us food on practice days, buy items we need, provide emotional support, teach us important skills, transport us, and love us. They provide this selfless grace so that we can have the opportunities to be successful. They are the epitome of Gracious Professionalism.

Essay

Our Story

This team has forever changed our lives for the better. Most of us were not into sports or band. We made good grades, but did not have a place to belong. Through the Gigawatts, we have created a community to work and learn together. Now, we have established our own activity to call our own. Our team is full of life changing stories and we would like to share a few:

A shy fifth grade student becomes an outreach superstar. Gaining confidence in himself through our robotics team he now is recognized throughout the FIRST community. Serving as mc at FLL events. Hyping up FLL teams at the Razorback Invitational. Hanging out with the late Woodie Flowers in the Volunteer Lounge in Huntsville. Coaching the next generation of STEM professionals. Because of FIRST.

The bright, talented wallflower. The girl who could barely say hello to teachers now is the highlighted speaker for 650 people. The teacher to 200 peers for an Engineering Week Girls' Day. A national award winner for Aspirations in Computing. Because of FIRST.

He doesn't even speak English. This Gigawatt is now a lead mechanic and able to speak with his teammates. He is a role model for English Language Learners in our school that you can succeed in school. He has shattered all preconceived notions.

Mission & Vision

Our mission is to establish a supportive and progressive robotics community that prepares the future generations to face today's challenges. We endeavor to teach and share real world skills in technology, business, and communication to create a strong foundation of STEM professionals.

Education

Education is vital for our global community, and FIRST is a curriculum that best displays a productive and successful team. We have not only created three teams within our school, we have also introduced FIRST concepts to schools across the state of Alabama. We have inspired hundreds of students in multiple school systems. In addition to teaching 5-8th grade, we have expanded to teach FLL Jr.. `

We coach three FLL teams and one FLL Jr. team. We are the support team for the rookie FRC team, Quack Pack. In addition, we have expanded to hosting and leading workshops for our FIRST community. This is an exciting new chapter for our team as we are able to share what we have learned with new and future FIRST members.

Advocacy

As FIRST programs grow, we would like to establish communication channels to promote the value of the FIRST members and alumni to the state workforce . We believe through this communication we can share the benefits of a FIRST robotics program and help procure funding for FIRST teams within our state government.

Diversity

We strongly believe that diversity is a critical component of a global learning community. Our school population is diverse with 40% of students having a Hispanic ethnicity. We encourage recruitment from anyone regardless of any label. We feel that the world is becoming smaller, and it is vital to learn about different cultures and how to peacefully cooperate despite differences. From these differences, we can build a stronger team.

Our current team has six females, but our FLL feeder programs are becoming more equal in gender. Robotics is for everyone, and we leave behind stereotypes that science and math are for boys. We want to shatter the perception that certain jobs or roles are for certain people.

We demonstrate our appreciation for diversity during our experiences at FIRST competitions, including the Houston World Festival and Arkansas FLL Invitational. At events, we build lasting friendships with teams from around the world. We love being ambassadors for FIRST. We welcome diverse teams and connect with them by having dance parties, sharing cultures, and following each other on social media.

FIRST Growth & Support

Our FIRST journey started six years ago with FIRST Lego League. We have had great success in FLL. We have had a State Championship, a second place State Championship, awards at International Invitationals, and multiple qualifier wins

The Gigawatts won the prestigious Rising Star Award from the National Space Club based on our project of an electrocoagulation washing machine. We were the first middle school team to win this award. Our name is in the same ranks as the University of Alabama, Alabama-Huntsville, and Mississippi State.

The World Festival in Houston inspired our graduating members to pursue a way to continue with FIRST. They had a chance to watch the FRC competition and fell in love. This is our third season as a FIRST Robotics team.

In addition to our in house teams, we have assisted other FLL teams in the state. Our coach is the AL FIRST Senior Mentor, travelling all over the state to help and support FIRST teams of all levels.

In 2019, the Gigawatts hosted our own FLL Qualifier. Our team worked tirelessly for months to plan and coordinate the event. We hosted 22 teams in a double qualifying event. We received compliments from parents, coaches, and volunteers saying that our qualifier was the smoothest and most efficiently run event they had ever attended.

We continue to support our family of FIRST programs with enthusiasm and devotion. Our members can always be found volunteering at FIRST events. We have multiple representatives at every FRC, FTC, FLL, and FLL Jr event.

Our future goals are to expand FIRST programs into our surrounding county and city schools. There is a lack of FIRST programs within our surrounding three counties. There are several city schools that are prime candidates to host strong FIRST teams.

Partnership & Sponsorship

We believe that our community is a part of our team. It takes us, the students, but it also takes faculty, school administration, mentors, parents, local businesses, and corporations. We endeavor to create a partnership with each of these stakeholders. Through FIRST we see that we can make an impact on the world we live in today, not when we graduate. Making connections with our community enables us opportunities to bridge the gap from student to productive member of society. The skills we learn through FIRST will directly benefit our partners. They are investing in their future thinkers, creators, and innovators.

Financial support is always appreciated to help offset our costs, but we strive to involve our partners even more. We conduct presentations to our partners demonstrating the work we are doing. Through these meetings we establish ways they can help us continue whether it be through funds, materials, or expertise. We find that companies are excited to help when they see our skills and accomplishments.

During the Covid pandemic, we felt the need to give back. We created a campaign to raise money called "Feeding the Frontlines!" We used the money to buy lunch for frontline workers from local restaurants that were hurting from the closures. We were able to thank those helping us while supporting those in need. We raised over $3,000 for our project.

Outreach

We love FIRST and know you will too! This is our outreach motto. FIRST is such an amazing community of people; we believe if we can get you to a competition or event, you will be hooked!

We love to spread our enthusiasm through demonstrations and presentations. We host Lego Mania each year at our county fair. This is a chance for us to share our love of robotics with festival attendees. We share with over 300 people: the FLL game and robot, our FRC robot, a Lego free build car ramp, and other games and face painting.

We have done demonstrations at Brickapooloza, Huntsville STEAMWorks, Marshall Small Business Association Meeting, Kiwanis, Rotary Club, National Space Club, and at McWane Science Center. Our McWane demonstration was on Engineering Day for over 1000 middle and high school students. It was so successful that they have asked us to come back whenever we want.

We host a robotics showcase night so that parents, school staff, and community members can come to see our FLL presentations, robot game, and watch a video showing highlights of our year. Our FRC team members serve as the emcees for the event. After the presentation, audience members are encouraged to ask the team members questions and learn more details one-on-one.

Media

We maintain positive relationships with media across the state. We have promoted our FIRST accomplishments with local newspapers, but we have also shared with tv stations and state publications. Our contacts often say they love covering our work. They are excited to see what we have created now. There is definitely some remorse that they did not get to do FIRST when they were in school.

When we read articles that our state is behind in education, we feel they simply are not looking in the right place. Students are excelling through robotics and programs like FIRST. The media is a vital tool for us to reach people around the world and show first hand our capabilities.

Social media is a powerful media tool for our generation. We often hear about things through our social media accounts before anywhere else. It allows us to connect with people in real time. Because of this, we have created social media platforms for Twitter, Instagram, Facebook, and have built a website. In addition, we include our social media links on all materials so that people can follow us on our journey.

What Next

We want to continue what we are doing. We have goals to finish within the top 10 for the robot game. We want to turn in submissions for each of the At Home Challenges. We would love to pass on with our game design and innovation challenge solution. Additionally, we want to continue our educational pursuits with mechanical engineering, CAD, programming, and machining.

Continue our mission to establish a supportive and progressive robotics community that prepares the future generations to face today's challenges head on. Robotics has made such a positive impact on our lives that we want to share this experience and make it possible for others.