

***FIRST* Impact Award - Team 34**

2024 - Team 34
Team Number
34
Team Nickname
Rockets
Team Location
Athens, AL - USA
Describe the impact of the <i>FIRST</i> 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 <i>FIRST</i> programs as mentors/sponsors.
The FIRST program has had a major impact on all the members of Team 34. In the past three years, every single student from our team has graduated from high school. In addition many of these students go on to be directly or indirectly involved in a STEAM field. We are also very fortunate to have four returning alumni students who come back to mentor the team and teach what they learned in their time on Team 34.
Describe your community along with how your team addresses its unique opportunities and circumstances.
The citizens of Limestone County love to connect with one another. We target events where this is happening to connect with our community. These events include festivals, like our Christmas parade and Crape Myrtle Festival in Ardmore, TN; advocacy events, like Eli's Block Party, which raises awareness for pediatric cancer; and places of business, like our town square and farmers market. Through our outreach the past 3 years, we have reached over half of the population of Limestone County.
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?
Over the past 3 years our team has impacted and created a social environment that has spread the message of FIRST. Our team has participated in almost 70 outreach events within the past 3 years. These events include our local farmers market, our school board, and presentations to local leaders. Through these events we have been able to reach over 64,000 people. We measure these results by contacting the leader of each event to thank them for having us and get the number of people in attendance.
Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.
Team 34 has acted as role models by introducing and guiding the development of STEAM skills to younger audiences. Recently, we have established a middle school robotics club in every single middle

school across Limestone County. We also host an annual Tough Truck challenge to help aspiring students create a robot from scratch. This June, we hosted a LEGO robotics camp for 4th and 5th-grade students. In addition our team members have over 2,600 hours of community service.

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

Team 34 has assisted multiple FIRST teams across multiple competitions and even outside of competitions. We have assisted teams like 6404 Brazilian Storm by allowing them to use our facility. We have also mentored multiple teams, including FLL Team 32309 The Skyrockets, by helping them code their robot and attending their competitions. In addition we have started 3 FLL Explore teams in Limestone County. We are currently in the process of starting a Limestone County FTC team as well.

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?

Team 34 has started 6 middle school Lego robotics clubs across Limestone County and we have one at every school. We have hosted multiple Lego camps during the summer. As well we hosted a 4th and 5th-grade Lego camp to introduce STEAM to younger students. In addition we bring the students who participate in these camps to the Rocket City Regional to introduce them to FRC. This has worked to inspire many students, a majority of our rookies this year have come from our camps and clubs.

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

Our team enjoys partnering with organizations within our community. We work with Athens Main Street to volunteer, hold events, and make improvements to our community. We also work with TRAIL which is a youth philanthropic organization that focuses on volunteering. We have also partnered with our school board to create 6 Lego robotics clubs and 2 camps. In addition we work with the FIRST in AL Youth Advisory Council and the FIRST in AL operations team to lead the growth of FIRST in AL.

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

Ensuring that students from all walks of life are welcome and safe on our team is the most important thing to us. One way that we ensure socioeconomic inclusion is by having sponsors cover team members dues. Over half of the 23 members on our team qualify for free or reduced lunch and wouldn't be on our team without these sponsorships. In addition we make it a priority to have women in positions of leadership. Half of our subteams are female led and we hope to boast this number soon.

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

To ensure our team runs effectively in the future, we take two major initiatives: an apprenticeship dynamic and documentation. For the apprenticeship dynamic, new students are given a returning student to work under. The returning student is responsible for making sure their apprentice knows how to do their job and our workflow. Our documentation system is a new act to retain knowledge and stay relevant to changes. We make daily online or physical entries of all of our changes and notes.

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

Our team has many different strategies to recruit, retain, and engage sponsors. To recruit we send our team members to various businesses with our information including our Star Sponsor System. A system using stars paired with the amount of money given. To make sure that businesses continue to support us we give them bi-weekly newsletters of what we have done in that time. We also invite them to our regionals as well as our facility to visit and see the progression of our team and robot.

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

Last year, we struggled to keep relevant documentation, negatively affecting our quality of work. This year, our team is working to improve our documentation, as our team leaders are keeping log books with information about what our sub-teams have worked on. Along with this we also have weekly wrap-up meetings to keep the team informed. In addition we use this documentation and our Impact documentation to ensure honesty in our submissions and show other teams what we are doing and how we do it.

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

Team 34 believes in starting small. To build a better world, we need to build better robots, better relationships, and better character. Our goal is to see each student leave Team 34 positively impacted by STEM. This is a hard goal to achieve because it's measurable only on an individual basis, but all students who graduated in the past three years have certainly left our team in a greater place, whether it be in skill, confidence, resilience, or some other aspect. We aim to perpetuate this.

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.

This past year one of our mentors visited Zimbabwe. There he connected with a community that needed agricultural help due to the dry conditions. Our team created a plan to help them. This plan is made up of three phases. The first phase consisted of raising awareness and reconnecting with the community. The second phase includes developing an agriculture curriculum for K-12 students. Lastly, the third phase is to raise money to send to the community to build an irrigation system.

Judge Feedback

Who/When

Feedback

Mar 15,
2024
01:35:08
PM EST

How are FIRST programs implemented and sustained in third world countries?
An area the team has an opportunity to improve.
Something that really impressed the judges.

Essay

For the past twenty-seven years, Team 34 has sought to spread STEAM in North Alabama. Over the past three years, our team has more than tripled our involvement in our community, both local and statewide. This year, our team has reached over 64,000 people through outreach events and social media. To our small team of twenty-three students and seven mentors in rural Limestone County, these accomplishments are huge to us and our community. By reaching this many people we have been able to make great connections with local leaders, organizations, schools, and even a group in Zimbabwe, Africa.

CONNECTIONS NEAR AND FAR Last year one of our mentors visited Zimbabwe, Africa. On this trip, he connected with a community and school that needed immense help. In this rural farming town, people's livelihoods depend on agriculture. However, due to Zimbabwe's drought-prone climate, the community doesn't have enough water to irrigate their crops. This summer, our team formed a three-phase plan to use STEM to help them. We have already completed Phase 1 of this project which was to reconnect with this community and bring awareness to this cause. We are currently working on Phase 2 of this plan which is to develop K-12 Agriculture learning materials and provide them to the Dora Primary School. Providing these materials will solve problems for years ahead by teaching students the importance of implementing STEM to solve community issues. The third and final phase of this plan is to raise and send money to this community so they can build an irrigation system to water their crops. We hope to complete this project by the end of the year.

COMMUNITY OUTREACH Our connections in Zimbabwe aren't the only valuable connections that we have made. We have made many connections within our community that have allowed us to demonstrate our team and volunteer at over seventy local events. One of these connections is with Eli's Block Party Childhood Cancer Foundation. This organization raises funds for childhood cancer. This summer we partnered with this organization to plan and demonstrate our robot at their annual Superhero Day. Superhero Day is a festival that hosts local vendors to provide games and activities for children. The 2023 festival raised over \$2,000 to help cure pediatric cancer. In addition to Superhero Day, our team has participated in numerous local festivals.

This includes the Ardmore, Tennessee Crepe Myrtle Festival, the Athens Sippin Cider Festival, and a Fridays After Five concert event. Through these four events, our team reached over 20,000 people. Our team also makes a point to participate in outreach events in surrounding communities. Our team presented at the Huntsville AUVSI Symposium and demonstrated our robot at the Huntsville STEMFEST this past fall. This year we also partnered with the Athens Limestone Farmers Market to run the children's activity table at the market. For six of the market days, we demonstrated our robot, did a STEM activity, or did a craft with the children. One day while we were working at this table a storm hit the market hard. Rain and wind blew the vendors' items and the market tables everywhere. While everyone else rushed home to stay dry, our team stayed to help the market's vendors pack up.

VOLUNTEERING This event helped us to put into perspective the purpose of our team's outreach. Our outreach is service, service to our team, our community, or anyone in need. Being a service-based team is incredibly important to us; the members of our team have a total of 2,665 community service hours. These hours include many local events such as the Athens Kiddie Carnival, and Camp Hope. Camp Hope is a local camp that helps children process their grief after the loss of a loved one. This summer our team volunteered as buddies to the kids at this camp.

Along with volunteering in our local community, we volunteer in the FIRST community. As of January

2024, our team has supported a total of four FLL or FTC events totaling 160 hours of volunteer work. In addition to these competitions, we also volunteer at the Rocket City Regional (RCR) each year. This past year seven students represented our team as student ambassadors and the entirety of our team helped tear down the field on the final day. Aside from competitions, we have approximately 100 community service hours from volunteering at various FIRST events.

ADVOCACY Besides outreach and volunteering, it is also important for our team to advocate for FIRST and STEAM. This fall, our team presented to the Limestone County School Board with FLL team 32309. We demonstrated how our progression of Explore, FLL, and FRC programs are benefiting students and our school system. We stay in close contact with our superintendent to spread awareness of any problems we find or events we are attending. He comes to the RCR as well. We also present to city leadership such as the mayor of Athens, Ronnie Marks, and Chairman Colin Daly. We have also demonstrated our robot to local politician Britney Brown and Athens Communications Specialist Holly Hollman.

Aside from local advocacy we also work to advocate on a state-wide level. One of our team's leaders, Chloe is the FIRST in AL Youth Advisory Council Chair and an unofficial member of the FIRST in AL Operations Team. Her position allows us to help lead the growth of FIRST in AL. We have been able to attend and volunteer at numerous FIRST events. We also helped FTC secure spots at worlds by assisting in the starting of an FTC team.

Even better, we have begun advocating on a national level. Our team is a StudentsFIRST team. StudentsFIRST is an organization that is working to produce student-led teams, end mentor overreach, and level the playing field. Our team recently became a m.e.FIRST ambassador team. This organization contributes to menstrual equity by providing free menstrual products in FIRST competition restrooms. Additionally, this summer members of our team will be attending the Student Association of STEM Advocacy (SASA) Conference in DC. SASA will allow us to learn valuable skills, make connections, and spread FIRST to national leaders.

PIPELINE Our team's main focus for the past two years has been to increase STEM in Limestone County Schools (LCS). In 2023 we helped to start an LCS middle school robotics camp. This is a week-long camp where students come together to develop Spike Prime robots. This small camp has blossomed into so much more, there is now a robotics club at all six middle schools in Limestone County. This allows all 6th-8th grade students to learn about robotics. It also gives the teachers who run these clubs a stipend for their hard work. Our team continues to mentor these clubs and attend their meetings as much as possible. These clubs have allowed our district to host a Lego robotics expo that we were able to volunteer at. In May, five of these clubs met at Athens State University to present their work.

These clubs are set to transform into FLL teams within the next year according to LCS administration. Our team's end goal is to have enough FLL teams in LCS to host a FLL scrimmage or competition. Along with this, having 6 FLL teams in our district will provide a pipeline of trained, experienced students for our team. Our team is already reaping the benefits of these clubs. All of the ninth graders who joined our team this year were previously in one of these clubs.

STARTING & MENTORING WITH FIRST Along with starting and mentoring these clubs we also work with many FIRST teams. Last year we were able to start three FLL Explore teams at Blue Springs Elementary School. These three teams are Team 6041, Team 13712 and Team 2022200730. Our team is

currently working to start the first-ever LCS FTC team as well. While starting new teams is important, it is also crucial for us to sustain the teams that we have already started. We have mentored FLL team 32309 The Skyrockets for the past nine years and continue to do so.

RECRUITMENT While these clubs and teams are creating a sustainable pipeline of students for our team it's important to keep our other recruitment strategies. Last spring, our team reached over 1,200 people by completing fourteen recruitment events. This includes our annual Tough Truck Challenge, a day where interested students come to our facility and build VEX robots to compete in a robotic tractor pull. Our team also sponsors a Spirit Bus that brings over 100 students to the RCR each year to expose them to FRC competitions.

FIRST COMMUNITY Our team has made it a goal to connect with more FRC teams. We recently published beginner CAD videos on our website to help teams who are interested in learning Solid Edge. At our competitions last year, we helped over 10 teams. In the process of assisting teams, we have made great connections. Our most precious connection is with team 6404 Brazilian Storm. Their team reached out to us last year in search of a place to rebuild their robot after transporting it to the RCR. We were able to invite them to use our facility to do this. Throughout this competition, we became very close with them. On the last day of the RCR, they invited us to a pizza party. Members of our team were able to attend this party, trade shirts with the members, and learn about Brazilian culture. This was an amazing experience for our members and we plan to do it all again this year. In addition, we will be helping Team 2869 with a podcast this season.

Within the past three years, our team has transformed for the better. We've grown our outreach, our volunteering and made so many connections. Because of our team, over half of the population of Limestone County and people far and wide have been exposed to FIRST robotics. This is allowing us to expand the mission of FIRST and our team to everyone around us. Most importantly our team continues to have a positive impact on more and more people each day. ;

