

FIRST Impact Award - Team 1741

2025 - Team 1741
Team Number
1741
Team Nickname
Red Alert
Team Location
Greenwood, IN - USA
Describe the impact of the <i>FIRST</i> 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 <i>FIRST</i> programs.
Our team is dedicated to preparing members for life. We boast a 34% ethnic diversity rate, a 9% increase from the previous year, and a 19% female representation. We host skill and leadership trainings to encourage growth and a positive learning environment. We teach more than robots, like graphic design and business, and we get members involved in all sides of our team. We have a 100% graduation rate, where 89% of graduates went into STEAM fields, and 49% of our alumni have continued in FIRST.
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.
Based in Greenwood, our community has a range of needs and interests. We provide STEM in free facilities through demoing and delivering materials. Our students are passionate about creating equitable access to STEAM in our local community. In 2025, we worked with a ministry to impact low-income areas of our community. We make our team accessible to everyone through fundraising and scholarships. We use STEAM to increase accessibility at a hospital, developmental preschool, and our competitions.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> Mission in ways that are effective, scalable, sustainable, and creative.
Our mission as a team is to create a culture of STEAM to inspire future leaders and innovative thinkers. Our FRC students mentor FTC and FLL teams in our community. Our pipeline supported 39 FLL, 3 FTC, and 1 FRC team in the last 3 years, even starting FLL Discover teams at a local developmental preschool. We invite kids K-5 to attend our summer camp, where they learn about STEAM and learn to problem-solve in a group setting. With 2 camps every summer, we have reached 250 kids in 3 years.
Describe your team's goals and the progress you have made towards them to fulfill <i>FIRST's</i> Vision.
Through unique demo locations like the 500 Festival Kids' Day and the Indiana State Museum, we reach thousands of people and demo annually at both since 2023 and 2020, respectively. Through our school's homecoming parade and Spring Showcase, we show our school FIRST every year. We have a Red Alert

flavor at a local business, reaching our community in unique ways. In 2024, we created national standards for FIRST graduation cords, allowing seniors to showcase FIRST around the nation.

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

"I went to my first robotics camp in 3rd grade after I had trouble fitting in and finding an extracurricular I enjoyed. Immediately, I knew I found my place." 70% of our team has come through our pipeline, showing its effectiveness. With our demos, we empower children and parents to start FIRST teams at their schools and provide them with information on how to do so. With around 50% of kids coming back to camp after their first year and the expansion to 2 camps a summer, we see our impact.

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

When the Indiana FLL Southern Semistate's location fell through, FIRST Indiana knew to ask us to host the event. We have hosted and run 7 FLL, 3 FTC, and 2 FRC competitions in 3 years and volunteered during others' competitions. Our team hosts a Robot in Three Days team that inspires many other teams during the beginning of the season. During the last 2 years, FUN Robotics Network live-streamed Cranberry Alarm's process, making it accessible for countless other teams to view.

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

Our open-door policy allows FRC teams to use both our machine shop and field, assisting 15+ teams in the last 3 years. We have helped FIRST teams with both their robots and award submissions through a coaches call and our week 0 scrimmage. We assist a team in Burundi, East Africa through online communication and financial support. Through our varsity letter program, we mentor teams in our pipeline. Through our pipeline, we have supported 17 FLL teams and 3 FTC teams at our school this year.

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?

We have partnered with the Girl Scouts of Central Indiana on a STEM patch since 2015, giving tours and doing FLL activities with 5 troops in the last 3 years. With our Growing Teams Growing Opportunities program, we have supplied 27 FLL kits, 40 laptops, 5 3D printers, and 1 FRC rookie kit to teams in our local community in the last 3 years. Partnering with the ME FIRST initiative, we have supplied hygiene items to male and female bathrooms at competitions since 2024.

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.

Through demos at our Indiana Statehouse, we helped pass HB 1382, which provides funding for robotics teams across the state. With events like Purdue FIRST Forums, we have hosted seminars on starting FIRST pipelines and an Impact Chat. We assisted teams like 4926, 868, and 3176 last year with our open-door policy, sharing our space and machines during competitive seasons. With the Little Red Door Cancer Agency, we have provided supplies and blankets to cancer patients in our local community.

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

Over the past 3 years, our team has supported diverse communities. One program we created is Women in STEM Empowerment (WISE). Since 2024, WISE participated in 2 middle school opportunity fairs and is hosting one for high schoolers. We have provided financial aid and advice to an FGC team located in Burundi, Africa. For the last two years, we have provided 600 STEAM activities to kids at Riley's Children's Hospital. We have created 2 books that teach kids diversity, inclusion, and safety.

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

We have a 501(c)3 parent organization that supports our team, attains grants, helps acquire and maintain sponsorships, and funds all our endeavors. Our risk-management plan details potential risks to our team and provides solutions. Our pipeline flows from PreK-12 with 17 FLL teams, 3 FTC teams, and 1 FRC team, which allows us to recruit new students at all age levels. We have also adapted our tournaments to be sustainable and efficient with trainings and partnerships throughout the community.

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

Recently, we began addressing the issue of using our resources to reach all areas of our community, not just those able to attend our demos. We are reaching out to areas that lack exposure to STEM by making STEM kits for patients at Riley Children's Hospital and making custom projects for a developmental preschool, reaching 900 kids in 3 years. We have started new partnerships in the last 3 years, such as the Little Red Door Cancer Agency, homeless ministries, and the 500 Festival Kid's Day.

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.

In 2023, our students were passionate about making FIRST graduation cords accessible to seniors around the country. By providing FIRST HQ with our criteria, the FIRST Standards for Graduation Cords were published on the FIRST website in 2024, giving seniors the ability to showcase their hard work. In 2024, we also hosted 2 "Coaches Trainings." These events trained 25 coaches from Indiana and Ohio on how to lead FLL Challenge and Explore teams and made FIRST accessible to more communities.

Judge Feedback

In what area does our team need to grow the most?
An area the team has an opportunity to improve.
Something that really impressed the judges.

Essay

For 20 years, FIRST Team 1741 Red Alert Robotics has set the standard for excellence as we spread FIRST's mission and vision. Our commitment to expanding equitable access to STEAM has garnered recognition within our local community and beyond. As we celebrate two decades of achievements, we

present Red Alert's Trophy Case — the outreach foundations we have built. Embodying the measurable impact we make, these trophies are tributes to the continued efforts of our students and the legacy we have built as pioneers of STEAM empowerment.

We would be nothing without the members of our team. With 47 students, we make FIRST accessible to anyone from our high school. We prepare our members for life through trainings that teach leadership, engineering, graphic design, machining, and more. Our varsity letter program also leads our students to get involved on and off the field, encouraging mentoring of our pipeline and outreach participation. Based in the Center Grove Innovation Center (IC), we host multiple FIRST teams, a full-size field for each level of FIRST, and a machine shop. We expanded our building in 2024 to accommodate more teams and create a safer shop space.

Our Top 10 Trophies

10. Partnership Trophy Forming partnerships with our community has enabled us to make an impact. Our 501(c)3 parent organization has provided us with financial stability since our rookie year. This year, we added a student lead position that works closely with the organization, relaying important information to the rest of our team and keeping us connected. We also maintain strong mutual relationships with our sponsors by inviting them to our team banquet and recognizing their contributions on our pit banner, t-shirt, robot, and social media.

9. Community Engagement Trophy Increasing access and exposure to STEM and robotics promotes inclusion. We host a Trunk-or-Treat at our IC every Halloween, engaging almost 3,000 attendees over the last 3 years. With STEM nights at elementary schools, we make FIRST accessible to 800+ families. In 2024, we hosted a movie night at our IC, showing STEAM movies and engaging children in unique ways. Through a relationship with the Johnson County Public Library (JCPL), we provided 100+ STEAM activities and modified robots for the JCPL Pumpkin Drop, reaching 250+ people in 2 years. Additionally, the Clark Pleasant Library was inspired to model its STEAM Zone and Robotics Lab after our facility, providing FIRST kits to community members. In 2025, we made an intentional effort to reach and empower low-income areas of our community. By partnering with local ministries, we are hosting a supply drive for homeless families at the 2025 FRC State Competition and engaging with underserved areas of our community to increase access to STEAM.

8. Future of FIRST Trophy Spreading STEAM in unique and impactful ways is the center of our outreach. To engage younger students, we started our Radical Robotics summer camp in 2014. This week-long camp focuses on a different letter of STEAM each day and allows campers to build FLL robots. We now host 2 summer camps each year, reaching 250 kids in the last 3 years. We began an annual partnership with the Indy 500 Festival Kids Day in 2023. At this demo, we showcase our robot at an interactive event tailored to our IndyCar-loving community, reaching thousands annually. We have demoed at the Indiana State House multiple times, spreading FIRST to state legislators and representatives while supporting House Bill 1382. Starting in 2023, this bill guarantees funding for competitive robotics teams across the state. Recognizing the dedication of our students, we offer graduation cords to seniors. However, after our students were denied the ability to wear them at graduation, we submitted our proposal to FIRST HQ to make a national standard. Using our criteria as the guidelines, the requirements for a FIRST Graduation Cord were published on the FIRST website in 2024, allowing seniors to showcase their hard work and dedication.

7. Gracious Professionalism Trophy The work we do for other FIRST teams has established our presence in Indiana and beyond. When FIRST Indiana (FIN) hosted a Coach's Call last year, our students stepped up to share advice with mentors on talking to judges and submitting for awards. We demoed at prestigious black-tie events like The TechPoint Foundation for Youth MIRA Awards and The CG Education Foundation Gala. These events allowed us to reach a unique audience and introduce our students to role models in STEM fields. Through our Growing Teams, Growing Opportunities program, we have supported 30+ FIRST teams in the last 3 years. From LEGO kits to new laptops, we give teams the materials they need to succeed. We host, support, and assist a Robot in 3 Days team, Cranberry Alarm. For the last 2 years, FUN Robotics Network has live-streamed and released their prototype and build process, inspiring millions in the FIRST community.

6. Coopertition Trophy Impacting those in our FRC community is a value we have upheld since our beginning. Recognizing the opportunities a full-sized field provides, we open our shop to all teams. We believe every team deserves an equal opportunity to succeed, so we've hosted an annual week 0 scrimmage since 2015, allowing teams to gain experience with the field and discuss awards at an Awards Roundtable. In addition, we keep our doors open throughout the season. Our open-door policy allows teams to utilize our space and machinery, assisting teams like Team 4926 Galactech, who went without power for weeks during the 2024 season.

5. Leaders in FIRST Trophy Our work in the FIRST community makes us a pillar in FIRST Indiana. In the fall of 2024, when the location for FLL Southern Semistate fell through, FIN knew they could count on us to host and support the event. We host, run, and assist competitions every year. We are one of the few teams in the world to have hosted competitions at every level of FIRST in one year, twice. Since 2010, we've hosted and run an FLL tournament every year, inspiring and empowering generations to compete in FIRST. Similarly, since 2014, we've hosted and run an FTC tournament or FRC competition every year. At all events we host and run, Red Alert students and alumni volunteer and fill nearly every role. Furthermore, our pipeline allows our FRC members to be leaders by mentoring FLL and FTC students in our community and making STEAM accessible to younger generations. This experience proves rewarding for all involved, making success achievable for the teams and teaching our FRC members valuable interpersonal skills.

4. Shared Resources Trophy We publish and share resources with others to make an impact. In 2015 and 2022, we created 2 children's books, "Ryan the Raccoon and the Terrific Treehouse" and "Benji the Brachiosaurus and the Perfect Playground". We read these books at events, teaching kids about inclusion, engineering, and safety in engaging and simple formats. In 2024, we hosted "Storytime" at competitions to engage children. These books are available through our team's YouTube channel.

3. Global Impact Trophy We have the unique opportunity to personally spread STEAM and impact lives worldwide. Starting in 2017, we partnered with a FIRST Global Challenge (FGC) team in Burundi, East Africa. FGC is a program that invites each country to send one team to compete in engineering challenges. With frequent communication and financial support, this connection has been mutually beneficial, teaching our students communication skills and helping Burundi students achieve season goals. Through our resources, they hosted the first FIRST competition in Burundi in 2024.

2. Women Empowerment Trophy We make STEAM accessible to women in our community. Since 2015, we've partnered with the Girl Scouts of Central Indiana on a STEM patch, Girls Engineering Awesome Robots Successfully. In the last 3 years, we've hosted 5 troops in our shop, giving tours and leading

activities. In 2023, we created WISE, a Women in STEM Empowerment program, to make STEM more accessible and engaging for girls in our community. This led us to partner with our school's WISE club, motivating middle school girls to enter STEM fields in high school. In Spring 2025, we hosted a STEM Opportunity Fair for women at our high school, connecting them with local businesses, colleges, extracurriculars, and electives.

1. Accessibility through STEAM Trophy We are most proud of our success in integrating STEAM with accessibility. Students at a local developmental preschool had many unaddressed needs. Partnering with them, we supported 300 students in the last 3 years. We created braces, boards, and a bed frame to help children develop sensory and motor skills. These projects taught our students valuable engineering and problem-solving skills in our off seasons and prompted conversations about accessibility. We also started FLL Discover teams in each classroom at this school, making FIRST accessible to all areas. For 2 years, we've worked with the Little Red Door Cancer Agency, donating school and hygiene supplies and handmade blankets for cancer patients. In 2021, we created our Bots Build Hope (BBH) program. Through this, we delivered 600 STEM kits to patients at Riley Hospital for Children between 2023 and 2024. With STEM activities and videos, BBH allows us to reach, educate, and inspire a community that lacks access to STEM resources.

We live the FIRST mission by transforming the culture around STEAM and inspiring innovative thinkers and leaders. We aspire to make STEAM both accessible and achievable, building programs and engaging our community through intentional outreach. With our trophies as reminders of the legacy we've built, we celebrate our past achievements and set our sights on our future impact. To 20 more years of spreading STEAM, changing lives, and upholding the mission of our founding members, Red Alert's motto is "Challenge Accepted!";

