

FIRST Impact Award - Team 1730

2025 - Team 1730

Team Number

1730

Team Nickname

Team Driven

Team Location

Lees Summit, MO - USA

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.

Over the last 3 years, Team Driven has had a 100% graduation rate, and all have pursued higher education. 55% are pursuing a college degree in STEM. This is in comparison to our school's 90% graduation rate, The FIRST program teaches Team Driven's alumni skills in design, presenting, programming, and machining. This allows our students to be better prepared for interviews, classes, and internships; carving a successful path into their future.

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.

Our team is located at Lee's Summit High School, which is a Title 1 school due to its income diversity. 21% of students at the school are economically disadvantaged, and the total minority enrollment is 34%. In collaboration with other districts, our students also have access to off-campus programs, such as Summit Technology Academy, which offers a STEM-focused curriculum. There are 45 FRC teams in the Kansas City metro, but, outside of that, it is a very FRC-sparse area.

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.

For the past 18 years, we have hosted and sustained various summer camp programs. In the last 3 years, our camps have impacted 315 K-3rd graders in our Bricks To Bots program and 392 4th-8th graders in our Robotics Camps. Our Junior Robotics League also allows students in K-8th grade to build an FTC-style robot for a game that our team creates, designs, and builds. We have sustained the Junior Robotics League for 18 years, impacting 309 students within the past 3 years.

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

We prioritize creating opportunities for younger students to learn and get involved with STEM. Our summer camp programs in the past 3 years have given 707 younger students the opportunity to work with, learn, and experience STEM. We also have our Junior Robotics League program, which is geared towards K-8th graders. In addition, our team has started 7 FTC teams, 4 of which were within the last 3 years. In the past year alone, we had 53 FTC participants.

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

We measure our impact by tracking our continuation rate from year to year and across our programs. Of our current students 67% have participated in one of our FTC teams. 12% of our current students have also participated in our Junior Robotic League or summer camps. From these two programs, 64% of participants also end up feeding into other schools in and out of our district. In 2024, we saw 35% returning students from our summer camps and 30% returning for our Junior Robotics League program.

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?

Our team provides Miracle Thursdays at competitions, a program where our students offer assistance to other teams to help them become competition-ready. In addition, we invite teams to our pit to use our machines and offer spare parts. During the end of build and early competition season, we invite teams to practice driving on our field. Our new Impact Exchange Program gives teams a chance to practice presenting their Impact presentations, receive feedback, and ask questions of other teams.

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

Two years ago, a new middle school opened in our district, and we started 2 FTC teams there. Due to increased interest, we started a third team at that school. In total we have started and continue to mentor and fund 7 FTC teams. 6 are in our district and 1 is in a district that previously had no FIRST programs. We assisted rookie teams Cashew Chicken (9428), and Pyroneers (10261), helping them find their footing in FRC. We assisted Robonaticos (7565) in technical and strategy-related subjects.

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?

Team Driven creates a pipeline to inspire students to explore STEM programs, such as FTC and FRC. For our young learners, we provide multi-level week-long Summer Camps. We also run a 6-week long Junior Robotics League program. Some of these students go on to join FTC and FRC teams. Along with inspiring the younger participants of Junior Robotics League, the students of Team Driven also get to learn leadership and organization skills through having to run the program.

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.

Team Driven is a part of the R-7 alliance including teams 1986 and 1987. From 2012-2023 R-7 alliance to host a Week Zero event. This is a time for other teams to come in and practice on our field before their competitions. This year, in collaboration with the R-7 alliance, we hosted the Kansas City Robotics conference where 9 different FIRST teams in the Kansas City area presented on various topics, which reached 185 people from other teams.

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

With our open-door policy, our team welcomes everyone regardless of grade or skill level. Our team does not require tryouts or applications to join. After our school's club rush, we host an open shop for new team members to tour our shop and introduce them to FRC. We also host an open house for our community and sponsors to showcase what our team has been working on during the build season. Our team has a demographic of 24% women and non-binary and 15% of our team are people of color.

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

Team Driven creates a pipeline of students from our Summer Camps, Junior Robotics League, and FTC teams. 67% of students on our team participated in one of these programs. Our returning team members on each sub-team train the newer members to ensure knowledge does not leave the team as members graduate. In order to ensure our team is sustainable financially, we run various off-season programs that generate a profit to fund both the programs themselves and our season's expenses.

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

Team Driven aims to increase our diversity and ensure we have aligned with our school's demographics. We are not currently aligning with those demographics given that we are only 22% women compared to our school's 50%. To address this, we have spent time discussing how our team can attract more women. We worked with our school to organize meetings during homeroom for only girls to tell them about how the team has opportunities for all interest areas.

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.

Our team consists of 33 members, and we host and run 15 STEM outreach programs, events, and activities. Almost all of our events and programs are run and coordinated by students because we have a fully student-led team. The students design, machine, program, and do business with little help from mentors. Our team is a year-round program with a majority of our outreach activities occurring during the off-season. Due to this, members start to feel more like family than teammates.

Judge Feedback

EST	What strategies have you seen been successful for reaching out and recruiting minority and/or marginalized members?
	An area the team has an opportunity to improve.
	Something that really impressed the judges.
Essay	

Since 2005, Team Driven has inspired future engineers, programmers, leaders, and more. Our primary goal is to continue inspiring and embracing FIRST and STEM, both in and out of our community. To do so, we help other teams navigate FIRST, fuel our community, and drive STEM education for future generations through our youth programs.

Navigating FIRST Since 2007, our team has been running an off-season event called Cow Town Throwdown. This is a two-day event in which teams compete by playing the previous season's FRC game. We prioritize helping other teams get a strong start within the FIRST community. Cow Town Throwdown is a perfect opportunity for all pre-rookie and rookie teams to experience a FIRST event, also allowing new members from our team and other teams to participate in a competition before the new season. Teams come from all over the Kansas City Metro area, as well as multiple other states, to compete each year. This year, we had 42 FRC teams from 4 different states attend Cow Town Throwdown. During this event, we also hosted an FLL scrimmage with 15 attending teams and an FTC showcase this past year. This allows us to introduce our community to all areas of FIRST and demonstrate our commitment to spreading the key values of STEM. On top of that, our team hosts an event called Practice with a Purpose that helps other teams navigate FRC. This event began in 2012 as Week 0 in collaboration with the R-7 Alliance, consisting of us, Team Titanium (1986), and The Brocobots (1987). During Week 0, the R-7 Alliance provided a FIRST regulated-size field, allowing local teams to practice driving, testing autos, and time to work out

any other issues. Starting in 2024, this event evolved into Practice with a Purpose hosted solely by our team. Similarly, we allow local teams to come in during the last couple weeks of build season and early competition season to test their robots on our field. This previous year, we had 11 teams participate. This not only benefits other teams by allowing them to utilize our space, but it also helps us build relationships with FRC teams in the area. In addition to Practice with a Purpose, we created our Impact Exchange program during the season of 2024. This event gives Impact presenters a chance to practice their speeches and receive feedback from other participating teams. At the end of each team's presentation, other teams ask questions and give helpful feedback. Last season, we had a total of 3 teams attend, which helped them to prepare for their regional events where they would be presenting to judges. Another way we help other teams navigate FIRST is through the Miracle Thursday program. This program aids other teams during regionals. It takes place on Thursdays at competitions, and our team intentionally brings extra parts and stock materials to give to teams in need. In addition to donating parts, we offer tools from our pit and assistance from Team Driven students. We have been granted the unique opportunity to help out a rookie team in Springfield, Missouri, Cashew Chicken (9428), as well as assist the first-ever Greek FRC team, Pyroneer (10261). Our students had discussions with these teams to help them get started and provide useful information to use in their first season. Additionally, we discussed topics such as building, fundraising, and impact. Our team has also assisted a team based in Brazil, Robonáticos (7565). We started communicating on social media, and now we have participated in various video calls with them and with 30+ other Latin American teams. In that meeting, we answered questions about our manufacturing process, programming, and drive team strategy. We have ongoing contact with Robonáticos, which has allowed us to continue assisting them with robot design and strategy.

Fueling Our Community In addition to how we help other teams navigate first, we help fuel our community through various STEM-focused events and activities. At the start of each school year, we host an open shop for new students at Lee's Summit High School. We also host an Open House for our community, allowing parents, students, admin, local government, and any community members to see our shop and learn more about both our team and its history. During the Open House, we hand out flyers, give tours of our machine shop, and inform community members about our different subteams that make up Team Driven. Additionally, we allow members of our community to see and drive our competition robot. This unique experience could very well be the beginning of a student's STEM career. We, as Team Driven, also fuel our community with the help we provide at regional events. At FRC competitions, our current and former team members volunteer in various jobs. Last year, we had students, mentors, and alumni volunteer with field reset, live stream recording, field set up, and field tear down for multiple FRC events. This includes the Greater Kansas City Regional, Heartland Regional, and the off-season MO-KAN State Championship held at North Kansas City High School. We also hosted 4 FLL Jr teams in our shop for their end-of-year party. Our Impact presenters gave their speeches, and other team members informed them about FRC and gave them a tour of our shop. We taught them about different machines and let them drive our competition robot. Team Driven members talked to these young students about the different areas of robotics and where they could potentially explore their interests. We were able to fuel our community with the unique opportunity to present our 2024 competition robot at a local Cub Scout Pack's Blue and Gold ceremony. Team Driven members let the young scouts drive and learn about our robot. At the end of the ceremony, we talked about how they could get involved in STEM through the activities we host and run. For the last two years, our team has also been given the opportunity to have a booth at a Girl Scout event. There, we let the students drive our robot, build We-Do Lego kits, and we talked about the importance of STEM and what our team does. In partnership with our school district, our team volunteered to assemble STEM kits so that local elementary students could access hands-on science activities. In 2023, our team impacted 6,725 kids at 18 elementary schools by making the kits. By assembling these kits, our team introduced younger students to scientific concepts to help foster an interest in STEM. In collaboration with another team in our district, The Brocobots (1987), we hosted the 2nd annual Kansas City Robotics Conference. At this event, we had 185 people in attendance from 16 teams, including an FTC team we started. Furthermore, mentors from 8 of those teams and a student from our team presented on topics such as business and marketing, strategy, scouting, programming, design, and mentorship.

Driving STEM Education We, as Team Driven, drive STEM education for youth in our community by hosting 2 different STEM summer camps: Bricks-to-Bots, designed for K-3rd graders, and Robotics Camp, designed for 4th-8th graders. During our Bricks-to-Bots camp, students build and program robots using WeDo Lego kits. This camp also

includes fun science experiments covering topics such as gravity, force, chemical reactions, etc. This summer, we impacted a total of 101 students who participated in the Bricks-to-Bots program. Each year in March, Team Driven students design and build a new game for our Robotics Camp. Campers can participate in two weeks of camps, which are divided into two levels. In Level 1, students gain the knowledge to design and build a robot, whereas in Level 2, programming is added, including an autonomous portion of the game. This year, for Level 1, we had 72 students; for Level 2, we had 49 students. As we watch campers grow throughout the week, we have the opportunity to see firsthand how much our programs benefit the youth. Our team also drives STEM education through our Junior Robotics League, a K-8th grade program that spans 6 weeks in total. Each year, Team Driven students design and build a game that replicates an FRC season. Participating teams of 2-6 students each are given a 6-week build period to design, build, and program a robot using FTC-style robots. Throughout the season, we host 10 workshop nights to aid teams in designing, building, and programming their robots. At the end of the season, there is a 2-day competition where FIRST-inspired awards are given out, such as Engineering Inspiration, Spirit, and Imagery. This year, we had 107 students forming 35 teams who competed. Each year, we see a large number of students returning to compete in the new game. We, as a team, drive youth STEM education by starting and mentoring 7 FTC teams, 4 of which were started in the past 3 years. One of the teams we have started is located at Holden Middle School, about 35 minutes away from our high school. Holden previously had no FIRST programs in their city, which makes this FTC team extra special for not only their students, our students, but also their whole community. The other 5 FTC teams we mentor are at 2 different middle schools in our district. Every week during the FTC season, we send members of our team to help the middle school kids design, build, and program their robots, as well as aid in the business and presentation aspects of FTC. Because so many of our students graduated from FTC, we understand the importance of and take pride in the impact we have on these middle schoolers.

As a team, we prioritize spreading the FIRST message both inside and outside of our immediate community. Throughout the past 20 years, we have created a wave, inspiring young minds to pursue STEM as both a career and a passion. We strive to continue helping other teams navigate FIRST, fueling our community, and driving STEM education. These are the reasons we are driven to succeed. ;

