

FIRST Impact Award - Team 1038

2025 - Team 1038

Team Number

1038

Team Nickname

Lakota Robotics

Team Location

Liberty Township , OH - 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.

Our goal is to educate and inspire our students, equipping them with knowledge and the skills to succeed. Many of our students have leveraged their technical skills to earn internships and jobs, expanding their real-world understanding of STEM. Several of our students have gone on to follow their passions at prestigious institutions such as MIT and Harvard. Over the past 3 years, 95% of our students have gone into STEM-focused careers, with 11 alumni having returned as mentors.

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.

As the only community-based team in our suburban area, we are committed to removing monetary barriers, ensuring that every student can have a fulfilling experience. 1038 is completely free to join and students are provided with free meals and offered financial assistance to attend competitions. Our team draws students from over 7 school districts, 15 different schools, and 2 countries—including middle-school and home-school students. Regardless of distance, we welcome anyone excited to learn.

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.

Over the past 3 years, we have reached ~290,300 people through demos and workshops. We have provided over 87 workshops, teaching over 1,700 kids STEAM concepts and have participated in 38 demos reaching over 288,600 people. Our students demo at community events such as the Dayton Air Show, the local Food Truck Rally, and Cincinnati Reds MLB games. We share the message of FIRST with thousands with a focus on quality interactions while encouraging positive STEAM engagement.

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

Our students are taught important leadership skills and gain technical expertise that will help them become leaders in the future. Students learn powerful public speaking skills and are encouraged to inspire their community. In just the past three years, three of our students became Dean's List Finalists. By fostering a culture that works to empower students, our students graduate knowing how to be diligent, inclusive, and empathetic—showing gracious professionalism on and off the field.

What impact has your team seen from your efforts described in the above question? How does your team measure impact?
Through our outreach and mentorship initiatives, we have seen increased numbers in attendance and interest in workshops as well as higher community awareness of our team and the FRC program. Our students' developed public speaking skills and technical expertise allow them to lead sponsor communication, teaching valuable soft skills. Our team measures impact through student and alumni growth throughout the years—growing their knowledge base in the STEM fields as well as technical opportunities
Please provide specific examples of how your team and team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years. How do you share these best practices with other teams?
For the last 13 years, we have hosted an FRC kickoff where local teams come together to collaborate and brainstorm. We also host an FLL Qualifying Tournament for 500 people (~20 teams) to inspire and teach the younger generation of FIRST. Our students also volunteer at various FIRST competitions. Over the summer, our students mentored a FIRST Global Challenge team, Tanzania, helping them work with their robot and assisting with design issues weekly.
Describe your team's initiatives to Assist, Mentor, and/or Start other <i>FIRST</i> teams with emphasis on activities within the past 3 years.
Team 1038 hosts and mentors 3 FLL teams at the Paul George Stem Center: 1 Challenge and 2 Explore teams. We have also supported 1 FRC team and assisted 8 FRC teams, with the new practice field in our building being a dedicated space for all teams in the area as we brainstorm, test, and learn together. For the past two years, we have also mentored FTC team 23435 by providing financial and CAD support. We aim to share our knowledge with the local FIRST community as we continue to recruit and grow.
What other initiatives have you created, grown, sustained, or participated in (<i>FIRST</i> 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?
Our team runs workshops for our local Boys and Girls Club, Girl Scout Troops, and 4H programs year-round to provide underprivileged kids exposure to FIRST and STEM. Over the past 3 years, our workshops have taught over 2,300 kids the basics of coding and designing a robot with a hands-on approach utilizing FLL kits. Our student-created curriculum provides Girl Scout's with Robotics badges and our LEGO summer camps help us build a pipeline of students interested in FIRST.
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.
We currently have 22 sponsors and have gained 18 in the past 3 years. These sponsors provide ~40% of our funding. Since 2022, our team has worked with Salgavnnini, a sheet metal bending company, to fabricate our parts—providing students with technical knowledge alongside internship opportunities. Over the past summer, we also partnered with Hands Across Borders—a non-profit dedicated to providing prosthetics for children in developing countries—to 3D-print a fully functioning prosthetic hand.
Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, <i>FIRST</i>, and your communities.
We provide equal access to STEAM and FIRST to anyone regardless of ability and economic status. Our active team has grown to over 50 students in the past three years, with over 45% of our active team being female. We have many students who follow different religions, have dietary restrictions, or are neurodivergent; having many cultures and perspectives represented gives us a better understanding of our community and the people in it.

Explain how you ensure your team and the initiatives you have created will be sustainable.	
In October 2024, our team opened the Paul George STEM Center: a beacon for science and engineering in the Cincinnati area. Our students worked tirelessly throughout the summer to make this place feel like home. With the PGSC, we grow the opportunities our team can provide, ensuring we will continue to inspire and educate for years to come. We have a full sized practice field and metal shop open to all teams and will be able to host more workshops and camps simultaneously with regular meetings.	
Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.	
With our new building being 14x the size of our old space, it's gotten harder to connect teammates. We hold large events such as a Robo-Haunt Halloween dance and Game Nights, and have regular leadership meetings to keep communication strong between subteams. Over time, people have become more comfortable sharing their ideas, not being afraid to ask for help, and are always smiling. We are moving to be a better connected group who grow, learn, and have fun together.	
Briefly describe other matters of interest to the <i>FIRST</i> 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.	
Over the past few months we have seen an amazing response from our community as we've moved to our new space, The Paul George STEM Center. We had over 300 people attend our Grand Opening (school representatives, news sources, local politicians), and over 80 people attend a holiday event focused on the impact 1038 has had on alumni's lives where we raised over \$7,700. We also recently rented out part of the building to a youth theater group, Inspiring Arts, to offset operational costs.	
Judge Feedback	
	This team did not submit the optional question for the judges when entering their submission. An area the team has an opportunity to improve. Something that really impressed the judges.
Essay	
1038 is a nonprofit that aims to remove monetary barriers that prevent people from learning STEAM. Being a community-based team, we've expanded our focus on underserved children, assisting FIRST teams, and partnering with nonprofits in order to give back to the community that gives so much to us.	
At 1038, a student-led leadership council works with mentors to make important decisions. One student captain and four subteam leaders bridge the gap between 32 mentors and over 50 active students. During the summer, we prioritize demo events and recruiting. In the fall, we implement a rigorous training curriculum to prepare for the build season so every student feels well-equipped for future challenges. We set up recruiting booths at 4+ different high school orientations each year, reaching thousands of students and adding dozens of new students to our team roster.	
Over the summer we acquired our new building: The Paul George STEM Center. This new space is 14 times larger than our old space—which we had outgrown as subteam members lacked the sufficient space to complete tasks, such as the daunting task of teaching 15 kids how to code with just 9 computers. The building, a former church, needed some TLC: over the summer, students, parents, and mentors worked early mornings to late nights in order to fully restore and furnish the building in time for our grand opening—only 5 months from when we acquired the space.	

The STEM center allows all subteams to have their own room with extra space for a full practice field, a robot museum, and more. It also affords more space to host workshops, fundraisers, FLL teams, and an FLL tournament.

FIRST has impacted every single one of our students—from teaching important technical and leadership skills to helping us meet some of our closest friends. Our students give back by providing others with the same experience. Our demo events, reaching around 195,000 people over the past 2 years, focus on recruiting new students, mentors, and sponsors.. We work to spread the ideals of FIRST and our team to local political leaders, countless companies, and other members of the community.

Our largest annual demo is the Dayton Air Show, where we reach over 50,000 people. In the shadow of The Detroit flagship DC-3, we drive a popular dodgeball throwing robot around the tarmac to entertain kids and adults alike, meeting everyone from Blue Angels pilots to local families. At our booths we host demos for FLL and FRC in order to reach out to kids of all ages in our area. This year we also had the amazing opportunity to demo our team at a Cincinnati Reds baseball game, reaching over 34,000 people from all over the tristate.

For the last four years we have attended the Union Center Food Truck Rally, a community event where people come together to share friendships and great food in West Chester. We set up a booth and demonstrate our robots and talk about STEM, reaching 25,000+ people each year. In response to our commitment to the event, the organizers have chosen us to receive part of the proceeds from the 2025 event, approximately \$12-15K. Our team also partners with our local 4H program and the Butler County Fair, this fair encourages our students to explore other aspects of the community that they may not be familiar with, such as local agriculture. This event reaches over 5,000 people every year—including business leaders, potential mentors, and most importantly, the countless families that we introduce to FRC, FTC, and FLL.

When it comes to community impact, we focus on specific, targeted, sustainable initiatives. For the past 3 years, we've run and hosted 30 Girl Scout workshops with around 15 girls per session for scouts to earn Robotics, Programming, and Engineering badges. Our program—the first of its kind in Western Ohio—has grown rapidly, and our team is packed with workshops for troops of all ages year round.

In addition to these events, we partner with the Boys and Girls Club, running and hosting workshops for underserved children. In the past 3 years we have had a total of 42 workshops or camp sessions with over 1,390 kids. We designed a curriculum to walk kids through OnShape CAD, building LEGO robots, and block programming. This past summer we also hosted our own week-long LEGO robotics camp where 29 kids worked in 4 separate teams to solve FLL challenges. Our students volunteered as mentors to teams of kids, guiding them through the process of designing and creating their own LEGO robot. We are excited to grow our partnerships and camps into more impactful and effective community initiatives this year at the Paul George STEM Center. As a team, we recognize there are many ways to meaningfully impact lives beyond STEM workshops and demos. We are currently working with Hands Across Borders, which was started by Cleveland Robotics in 2022, to make prosthetic hands for children without hands. We joined this project in 2024 and have since printed a test prosthetic hand to help. These projects show students on our team—no matter what subteam they're on—that STEM is and always will be more than just simple mechanics. FIRST is more than just robots: it's about helping, teaching, and nurturing creativity and brilliant minds around the world.

As our team continues to grow, we found the demand for STEAM opportunities exceeding our physical boundaries. As it would be inconvenient for the students to travel long distances for a meeting, we partner with existing organizations and school districts. In the history of 1038, we have been able to start eight teams and continue to work with two of them to collaborate and mentor their students whenever needed to ensure our connection to the local FIRST community stays strong.

We have also assisted seven FRC teams and one FTC team alongside supporting one FRC team. Two seasons ago, we mentored rookie FRC Team 9097 from a local high school: helping them get their program off the ground, working

with them on off-season mechanical training, explaining how FRC works, and providing our materials and past robots as learning resources. This season we have also started sponsoring 3 new FLL teams: Explore teams 31429 and 31640, Challenge team 67066. We host their teams in our building where students work as mentors to inspire young kids with a passion for FIRST. Our student mentors show their support for their teams, cheering them on at every competition they go to. This year we also held our first mentor workshop where we invited both current and future mentors from across Ohio to teach skills on how to best mentor students during the build season.

The vibrancy of our FIRST community is on full display every year at the FRC kickoff we host, where students from over a dozen schools and teams come together, bringing varied levels of experience. Everyone has a unique perspective as we all eat together, wait together, watch the livestream together, before sharing ideas and brainstorming together. The bonds formed between teams allow newer students a look into FIRST's collaborative and teamwork-oriented culture. We've also ran and hosted an FLL tournament for 19 years, reaching 500 attendees each year. This tournament is run by student volunteers who volunteer for queuing, field reset, and other positions alongside running a demo table at the event, encouraging young kids to continue their FIRST experience. These volunteers are role models to the FLL students, showing them the amazing things they can achieve as they continue their FIRST careers.

Our team is free for students to join—contributing to our diverse community—and making fundraising and sponsor engagement all the more important. Beyond engaging fundraisers hosted at local restaurants or during sports games, we've worked hard to cultivate long-term, sustainable relationships with businesses that share our mission of shaping people through engineering. In early 2022, we formed a partnership with Salvagnini, a manufacturer of sheet metal fabrication equipment. In previous seasons, we've designed single-piece drive bases for swerve modules and held design reviews with Salvagnini's chief engineers to optimize for their equipment. We continue to do so every season with final robot CAD designs. Visiting their space is an eye-opening experience for all of us—they enthusiastically inform us of how our relationship is mutually beneficial: we get help cutting/bending our parts, and they push their machines to the limit and learn how to improve their builds and better serve their customers. They are also opening up unique opportunities for internships for our students. When Salvagnini lost access to their metal cutting laser last season, they worked to donate the needed sheet metal to one of our sponsors so that they could laser the parts for us. Without our sponsors' generosity, our robot or students would not be at the same level they are today.

In our future, we plan on expanding the amount of events and various different events in our new building. In the coming weeks, we are hosting a Week 0 event for teams to come and run a scrimmage as well as hosting a Women in STEM meetup to show students different career fields in engineering. In order to better grow our involvement in the community with the help of our new space, we are expanding our Girl Scout programs by offering their Coding for Good and Mechanical Engineering courses. Additionally, we are hosting our second annual summer camp to expose 2nd-6th grade students to FLL robotics this summer. This October we are also partnering with FRC Team 548 to bridge the gap between FIRST Ohio and FIRST Michigan by co-hosting an offseason focused on raising awareness for the Young Survivors Coalition. Now, with the Paul George STEM Center, the students and their aspirations have the potential for limitless growth. ;

