

FIRST Impact Award - Team 6352

2026 - Team 6352
Team Number
6352
Team Nickname
LAUNCH TEAM
Team Location
Surprise, AZ - 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.
FRC6352 has a 100% college attendance rate including multiple doctoral candidates with the majority pursuing a STEM career. 100% of FRC6352 participates in STEM outreach and community service with over 450 hours this year alone and over 2200 hours in the past 3 years. 100% of students report FRC6352 has improved both their technical and soft skills. FRC6352 students believe their experience has prepared them for a successful future and numerous FRC6352 alumni have returned to FIRST to volunteer.
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.
FRC6352 is in a remote corner of the valley. The closest FRC teams are over 30 miles away. Inspired by our under-served area, our community is defined by areas overlooked by conventional efforts and our goal is to pioneer FREE STEM programs there. Whether starting a local school's first ever robotics team or creating curriculum for a team in India in their own language, our team promotes robotics locally and globally, as opposed to within the bubble of a school district or town.
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.
LAUNCH TEAM started 550 class pack teams over the last three years. By sustainably recycling kits and covering their costs, we save each team about \$1,162 in fees they would have had to cover independently otherwise. We also run summer bootcamps teaching robotics skills to prospective students. Through this program, we help new teams form and start in the valley in all levels of FIRST. Lastly, our creative digital outreach (including our Podcast, In Orbit!) has reached over 36,000 people.
Describe your team's goals and the progress you have made towards them to fulfill <i>FIRST</i>'s Vision.
Our goal is to continue to connect underserved communities to robotics opportunities. To achieve this, we hosted the first ever FLL tournament in Litchfield Park, as well as the first ever FLL scrimmage in

Surprise! Additionally, we have started 28 competition teams. Our team's students have even become leaders advocating for STEM with city government officials, as well as a meeting coming up with the Governor's office! This outreach has allowed us to cultivate new leaders for years to come.

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

Our impact is measured in 4 areas. (1) We track how many teams we start and mentor. (2) Community events like STEM nights, scrimmages and bootcamps are calculated by attendees. (3) Resources and curriculum we create can be found digitally and are tracked in views and likes. (4) We advocate to both local/city leaders as well as to the Governor. From these efforts, we have a work space and a student representative attending conferences in Washington.

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 members are recognized at FIRST Events, winning ARL AllStar, safety captain, and a Gracious Professional pin at Championships. We also model FIRST Core Values as judges & referees at our FLL Tournament and Scrimmage. Our team sends LAUNCH Accelerator care packages, including a guide to professional practices, to FRC rookies. All of the FLL Teams we start go through our "Rainbow Core Values" lesson, where we teach FIRST Values and teamwork before starting their season.

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

In the past 3 years FRC6352 has: started 28 competition teams and 550 class pack teams including 1 FRC and 6 FTC, mentored 61 teams including 3 FIRST Global teams, and provided published resources to over 5,000 people across all levels of FIRST. This year we partnered with ASU and Bricks for the Blind to bring blind schools in the US and the UK FLL. We provided STEM curriculum to teachers/schools for classrooms and afterschool programs from our local schools all the way to Asia and Europe.

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?

LAUNCH's initiatives are creative and sustainable. For example, Empower College Prep has grown over the past 3 years. This urban all-girls team went from never having touched a robot to competing in FLL, to advancing to the FTC state championship and even building a go-kart. The AZ Cactus-Pine Council for Girl Scouts now offers robotics kits donated by FRC6352 and uses our student written curriculum and digital lessons to provide troops a sustainable learning pathway to their robotics badges.

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.

Each of our partners help us offer new opportunities. We worked with ASU and Bricks for the Blind to create an FLL program for blind schools. The Girl Scouts use our lessons and kits to offer robotics badges. The Surprise City Council honored our team and partners with us to provide internships. Surprise and Peoria libraries offer our 6 Brick Activities for check out. Our sponsor Discount Tire featured 6352 in a national video. Our Outreach Alliance is helping valley FRC teams attend AZ North.

Describe your team's efforts in the past 3 years to promote *STEM for Everyone*TM within your team, *FIRST*, and your communities.

FRC6352 has students from 9 different schools and 60% are from demographics underrepresented in STEM. LAUNCH provides FREE programs for K-12 and paid over \$30K in registration fees and supplies. Our published resources include Core Values, FRC Podcasts and curriculum. We provide STEM for Everyone at our numerous outreach events: Diamondbacks STEM Dugout, Children's Museum, APS electrical parade, Sci-Tech festival, FLL & FTC bootcamps, etc with over 1.3 million community members in attendance.

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

FRC6352's team and mission will continue with our community outreach and recruiting. We create and mentor teams at all levels to ensure students always have another program to join and new skills to learn. We care for our robot kits by replacing missing or faulty pieces. We also reuse season materials for our unique class pack system that has reached over 2,700 students at a savings of over \$21,000. Our Mission Moon kits traveled to India during the 2024 season to celebrate their moon landing!

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

FRC6352 only meets on Saturdays/Holidays and is used to competing in Week 4, not Week 2. In order to make up for having 20% less time, we had to take drastic steps to develop our students' skills earlier. Prior to kickoff: we hosted mock build events to sharpen skills ahead of time, our programmers integrated AprilTag localization for the first time in our team history, and a student experienced with CAD joined our team sharing his skills with others allowing us to build significantly quicker.

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.

We not only mentor *FIRST* Global teams, like the Cook Islands, we help them find ways to spread *FIRST* in their country! We provided resources to Team Gambia to help them understand what it takes to start an FRC team. We collaborated with Team Great Britain to start the first ever youth blind robotics program in the United Kingdom! In addition, we've sent 10+ FLL robot and season kits to India, reaching 300+ students in their language by partnering with the National Institute of Technology.

Essay

LAUNCH TEAM 6352 LAUNCHES STEM OPPORTUNITIES! Over the past 3 years we've revamped our outreach to focus on the 3 ways we connect with our community: spreading *FIRST*, impacting the *FIRST* community, and inspiring the future of STEM, all with a focus on communities that have no opportunities.

LAUNCH focuses on spreading all levels of *FIRST*. In the last three years we have started 28 competition teams (1 FRC, 6 FTC, 21 FLL) from underserved or economically disadvantaged areas. For example, our new FRC team. Community team FRC10988 Desert Storm is the first FRC team in New River, Arizona and is over 30 miles from the closest school/community FRC team. A similar effort involves a remote school between Wilcox and Benson, AZ where we started FLL72175 and FLL72176. When AZ FLL's delivery partner at ASU ran out of grants to start new teams, LAUNCH responded by providing an FLL board and paying their registration fees. They were surprised to find out they could now participate

thanks to our donation. FRC6352 has an innovative approach to launching stem opportunities when the school is unable to travel to a competition due to food and bus expenses. We purchase FIRST class packs which are the same as the competition kits. Our FREE class pack teams boast a 3 year total of 550 classrooms and over 2,000 students impacted. Teachers receive everything needed to run a session. After the season, LAUNCH will help start their own teams and assist with grant writing. Overall, we save each team an average of \$1,162. Last year we reached all 830+ students at Grande Innovation Academy and the Center for Online Innovative Learning in Casa Grande. Meaning all 1st-3rd grade students participated in FLL Discover by starting 98 class pack teams and every 4th-8th grade student participated in FLL Challenge through 73 class pack teams. This school reported decreased behavioral issues and increased interest in STEM. Similarly, at Brunson-Lee Elementary in Phoenix last year, we started 6 Discover, 10 Explore and 2 Challenge FLL class pack teams.

** LAUNCH is particularly proud of the class packs we have started with the Alabama, Missouri, Arkansas, South Carolina and Arizona Schools for the Blind. ASU provided the field sets and our partnership with Bricks for the Blind gave us tools to prepare the Legos to support these special students. It was amazing to work with these students and see how they flourished when given the chance to experience all 3 FLL levels. For some students, and even some adult helpers, it was the first time they ever touched a LEGO brick. "Who would have thought these kids could do it?" is the wrong question. "How could these bright and curious minds NOT be given the same opportunities?" is the question we wanted to solve. **

FRC6352 supports our local community and boasts over 2,200 hours of community service with 100% team participation. We participated in fundraising events for children and animals, provided FIRST@Home kits and books to Little Free Libraries, provided teachers with classroom supplies and donated cases of water to Surprise police and firefighters. Our best act of volunteerism is supporting Brixton, a 6 year old whose father was killed in the line of duty, by assuring every year he has a great Christmas.

To reach people who are unfamiliar with FIRST, we support numerous activities across the state. Whether we're at the Diamondbacks' STEM Dugout, a Barrett-Jackson car auction, or a Free Friday at the Phoenix Children's Museum, we take the time to connect with families with children and guide them to nearby FIRST teams or provide information on how to start their own team. At the same time, we provide hands-on FLL activities for students and teach them about robotics.

LAUNCH also focuses on how we can positively impact the FIRST community and the importance of supporting the existing FIRST programs to create a sustainable ecosystem of STEM for Everyone.

Mentoring teams in need, providing curriculum written by LAUNCH as well as publishing the resources we create is something our team works on year round. We have mentored 21 competition FIRST teams this year alone and 61 teams in the past three years. Beyond the teams in our area, we also have an international reach. For example, in the FIRST GLOBAL competition we connected with The Gambia (Judged Award Winner), Cook Islands (Championship winners), and Great Britain to discuss build issues and outreach ideas over Zoom. Another example of our global mentorship is in India. In a challenged part of India we started and mentored 28 FLL Explore teams and provided materials and robots. This partnership was with the National Institute of Technology in Tiruchirappalli where we not only mentored the students in their native language of Tamil, we mentored the adult mentors who took leadership of the team and instilled FIRST values. This was a time consuming and tedious task for our students and

translators but everything is recorded to ensure the program remains sustainable for many years.

Our creative published resources are shared with everyone. When we start any team, we teach the Decision Matrix (easy/hard, simple/complex) along with our Core Value activity which is also posted on our website. We've built and given away 400+ FLL Teacher Friendly Boards at no cost, in partnership with the ASU First Alumni Org. These lightweight boards are easy to store and are a regulation size field. LAUNCH Accelerator kits are mailed to rookie FRC teams with our contact information, business plan, strategy documents and even resources for funding. LAUNCH even has a podcast called "In Orbit" and some of our topics include starting an FRC team and impact of FIRST on students, to name a few.

LAUNCH also provides teams with more accessible events and this also makes a positive impact on the FIRST community as a whole. We hosted 5 FIRST official tournaments and scrimmages in the past three years, including the annual FLL Scrimmage at the Surprise SciTech Festival reaching over 700 families, and the first ever FLL Qualifier in Litchfield Park in partnership with Barbara B Robey Elementary School. The importance of having an event to attend and learn from cannot be overstated. These events have been the closest opportunities for teams from hundreds of miles away including those in Parker, Casa Grande, and even Pollaca, part of the Hopi Reservation.

We've discovered that hosting off-season events is sometimes more impactful than official events. Last year LAUNCH focused on continuing robotics education during the summer. We hosted a multi-week FLL Explore and Challenge bootcamp for local Girl Scout Troops at Asante Library, an FLL Explore and Challenge bootcamp at Sunrise Mountain Library, and an FLL Explore camp at Surprise Regional Library. These bootcamps helped boost the 4 FTC teams we started at Mountain Trail Middle School and the three community FLL teams started in Surprise, giving rookie teams experience to start from.

Our third way of connecting with the community is by Inspiring the STEM Future.

To create awareness in our community about STEM and the opportunities we launch, we participate in some exciting events! By marching in the APS Holiday Parades, we've reached over 1 million people through in-person, streaming, and tv broadcasts. With ASU West and TSMC, we presented at their first ever Global STEM Fair in honor of 1010 day.

Our students have created original curriculums for Boy and Girl Scout robotics badges integrating the Core Values of FIRST. These have expanded from video walkthroughs to a partnership with the AZ Pine Council for a state-wide Robot Kit lending program. This program provides a sustainable alternative to each troop needing to source their own resources.

LAUNCH works to provide real world engineering skills to every student. Each FRC6352 student learns how to create and read a Gantt Chart, identify critical system requirements through our Strategy Document, break down systems and use engineering/math skills to justify decisions through our Design Document, and how to communicate effectively through our Slack discussion platform.

Our sponsors: Discount Tire and General Dynamics among others, provide us with unique ways to inspire our students using real world opportunities. For example, our students developed public speaking skills to prepare for our presentation at the Discount Tire Technical Facility. They taught us about their benchmarking methods for evaluating tire performance and inspired us to take a similar engineering approach to designing our new bumpers. The DT Media team even made a video that was shared

throughout the company with how to contact us. Our GD mentor led a team of students on how to conduct an engineering trade study to pick our new motors.

In order to keep the future of STEM bright for future opportunities, we've Launched several advocacy missions showing civic leaders the positive impact STEM has on students. The City of Surprise has been our greatest success, beyond graciously letting us use their facility for our meetings, the city council and mayor are fully aware of the good work we do and our students have been recognized multiple times in council meetings. LAUNCH was invited by state leadership to present to the Nevada Governor's Office of Science, Technology and Innovation about how Surprise's success in growing their STEM community happened through their partnership with us. Why are we so driven to spread the word about FIRST, have a positive impact on our community, and give STEM opportunities to those in need? STEM opportunities are decreasing despite the AZ population growing. In Arizona, there are 42 FRC teams registered for 2026, down from 46 FRC teams in 2025 and down from 57 ten years ago. FRC6352 was created because the West Valley lacked STEM opportunities per capita, compared to other areas in Arizona. Now, more than ever, we need to LAUNCH new opportunities.;

