

FIRST Impact Award - Team 3284

2023 - Team 3284
Team Number
3284
Team Nickname
Camdenton LASER 3284
Team Location
Camdenton, MO - 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.
3284 is dedicated to providing experiences & promoting skills that are used in the modern workforce. For example, all LASER members are CPR, AED, & OSHA-10 general industry certified; this will not only benefit our members after graduation, but promote a safe environment on the team. Additionally, in the past three years, 100% of our alumni have entered STEM fields after high school, aided by the skills they have learned on LASER.
Describe your community along with how your team addresses its unique opportunities and circumstances.
LASER is based in a small rural community with little to no industry besides tourism. This, as well as being from a school with a free & reduced lunch rate of 42.71% severely limits the resources available to our team. 3284 adapts by reaching outside of our community for many sponsors. We apply for grants & sponsorships from businesses across the nation to support the sustainability of our team.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
The <i>FIRST</i> Flowers movement, created by 3284 to honor Dr. Woodie Flowers, provides nursing home & hospital patients with fresh flowers & a hand-written card to brighten their day. 3284 created the #BuildItFIRST movement to foster STEM interest in youth while simultaneously donating Lego STEM kits. LASER measures our results through the influence we have on team members, sponsors & organizations while performing outreach.
Please provide specific examples of how your team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years.
LASER provides opportunities to the <i>FIRST</i> community by sharing our knowledge & experience. Inspired by Dr. Woodie Flowers, 3284 annually updates & shares our Code of Ethics to define the values of our team & provide an example for others. 3284 also hosts summer camps throughout our region to

encourage FIRST participation. To further ensure FIRST sustainability and foster success among other teams, LASER publishes various resources.

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

Through both in-person & online collaboration, we have started 53, mentored 33 & assisted 71 teams of all progressions. LASER started an FLL team on the Ute Mountain Ute Native American reservation by providing resources and coaches training. 3284 also gives shop tours to schools looking to start a FIRST team. At competitions, LASER offers assistance through our Operation Clean Sweep program by encouraging teams to come to our pit for any parts, supplies, or materials they need.

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?

Through a collaboration with the organization African Sky, our team utilizes our experience in FIRST to share STEM with a female orphanage in Cameroon. We design and send STEM based activities and lessons, inspiring interest in the field. Additionally, 3284 hosts & runs 18 competitions of all FIRST progressions. By providing FIRST access across our state, we ensure young innovators have STEM opportunities.

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

We work with school organizations such as the FFA program to donate plants to nursing homes, the Health Occupation Students of America to discuss mental health equity in our district, & the art club to redesign our logo. LASER collaborates with our state legislators to host STEM Day at the Missouri state capitol. We demonstrate STEM to thousands of Missourians, and advocate for legislation regarding STEM funding, mental health initiatives, and FIRST recognition.

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

Increasing female participation in FIRST, 3284 partners with FIRST Ladies to host events at competitions & in our community such as a camp that invited mothers & daughters to compete in STEM activities. 100% of 3284 members & mentors are certified in the FIRST Equity, Diversity & Inclusion training, ensuring all students are given opportunities to participate in FIRST. Furthering this mission, LASER created a FIRST-approved FLL team for high school students with learning disabilities.

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

3284 is 1 of 40 LASER teams in our district. Our FRC team regularly mentors younger progressions to help them during their season. Within 3284, we run a Mini Me program in which an upperclassman is paired with an underclassman to mentor at practices and competitions, providing new members with the resources they need to be leaders on our team. Additionally, we create a business plan that details our efforts to gain sponsors & fundraise, so future 3284 members can effectively do the same & more.

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

past 3 years

In the past 3 years, LASER has given 53 presentations to possible sponsors locally & nationally. Additionally, through our inaugural sponsor's dinner, we showcased several progressions of our program with presentations & demonstrations. This allowed us to thank our existing sponsors & show potential sponsors what a donation means. We also partnered with our local Optimist Club annually to co-run a Christmas tree lot fundraiser, becoming the sole coordinator after the Optimist Club stepped down.

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

Despite our increased female participation in the fabrication of the robot, LASER is still working to increase the participation of females in the program as a whole. To address this as well as advocate for women in FIRST, LASER has become a FIRST Ladies team & presented at Million Girls Moonshot, a conference promoting women in STEM. 3284 also ran a Mother-Daughter STEM Camp to share STEM principles with young female innovators.

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

LASER is dedicated to providing STEM to our school & beyond. From our efforts, Camdenton was the first public school district in MO to be awarded the Cognia National STEM certification. By housing all progressions and divisions of FIRST in our school district, Camdenton was also named 1 of 38 FIRST class schools worldwide.

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.

LASER participates in numerous efforts to make an impact around the world. 3284 started the #WalkLikeWoodie movement, which was adopted by FIRST to spread the ethos of Dr. Flowers globally. Additionally, an outreach event that LASER has run is Go-Baby-Go. Working with Lake Regional Hospital, we created ride-on cars for children with impaired mobility. This outreach event spread the message of FIRST, making a global impact greater than ourselves.

Essay

It's not about the pieces but how they work together. Spanning the past 14 years, LASER 3284 has worked to establish the message of FIRST around the world. LASER's initiatives combine to be the defining pieces of our team. These pieces work in tandem to inspire change in & beyond the FIRST community. Every piece, like a mechanism, engages to move our team; a team that is reshaping the

world. Foundational Piece LASER is from a rural town with 4k people & little industry. Before 3284 was founded, no FRC teams existed in central MO. We brought FIRST to our community & a school with a free & reduced lunch rate of 42.71%. These circumstances inspire LASER to take initiative within our community. The foundational piece of 3284 is collaboration with our school & its organizations. Partnering with Camdenton's FFA program, we received donations of 90+ plants & flowers to use in a community initiative. LASER displays our program in district newsletters & our high school's broadcast class to raise FIRST awareness & recruit new members. LASER is dedicated to creating a culture of safety on our team. All members are certified in CPR, AED & first aid & have completed OSHA-10 general industry training. 3284 values an inclusive environment on our team. Due to this, all members & coaches are certified in FIRST Equity, Diversity & Inclusion training. Working to make FIRST accessible to all students, we started a FIRST-approved FLL Explore team adapted to the learning needs of our school's special education program. Every piece of LASER works together to ensure program sustainability & engage youth in STEM. We hosted a STEM camp for 113 students where we facilitated lessons on wiring, chemistry, engineering, etc. 3284 also ran an introductory FTC course for 21 upcoming middle schoolers. Beyond events, we continually mentor our younger progressions during practices & competitions. This allows us to establish a sustainable FIRST pipeline in our school district & become 1 of 38 FIRST class schools globally. LASER utilizes these foundational pieces to make an impact greater than ourselves. Connecting Piece Building off the foundation set in our school, we drive change through the connections we make in our community. Sharing STEM locally, 3284 repurposed FLL kits to donate 96 LEGO sets with challenge cards to children's hospitals, our local domestic violence shelter & a foster care association. We also hosted an educational event aimed at young girls & mothers where they participated in a themed experience to foster interest in STEM & challenge their problem solving skills. LASER sustains our program by collaborating with sponsors & running fundraisers. Through a long-term partnership with our local Optimist Club, we co-ran a Christmas tree lot fundraiser. After the Optimist Club stepped down, LASER began to run the lot. Additionally, 3284 hosts a trivia night which includes a silent auction of local business donations. LASER began a new tradition this fall by hosting a dinner to thank current sponsors & recruit new ones while giving back to those who generously give to our program. During the event, we highlighted all progressions of our program & showcased the impact of FIRST & sponsor donations. LASER shares our program through multiple news outlets & community initiatives. KRMS Radio, Lake Expo & Lake Sun are a few media sources that feature our team regularly. Through these connections, we aid our community via multiple service projects, such as Salvation Army bell ringing & volunteering at a local food bank. 3284 recognizes the importance of mental health in & beyond our community. One of these initiatives focuses on the elderly, as many struggle with a lack of family connection because of the pandemic. 3284 partners with nursing homes to donate over 500 flowers, gifts & cards to residents. LASER also chooses one nursing home per year to dedicate our time to on each holiday. 3284 is inspired to reach out to our community as we see the lasting impacts. Our nursing home donations are an extension of our FIRST Flowers program. Inspired by Dr. Flowers, LASER started this project to address the mental health needs of our community. Beyond nursing home donations, we have delivered over 300 flower bouquets to the cancer ward of our local hospital. FIRST Flowers was highlighted in the hospital's monthly staff news & a KY3 News broadcast that reached 467k people. As we place these connecting pieces, we continue to expand our impact beyond our community. Bridging Piece LASER's dedication to fostering change at the state level is the bridging piece that connects our school, community & state. We showcase all progressions at 35 demonstrations at events such as the Ozark Maker Faire & MO State Fair. This provides LASER the opportunity to display the importance of FIRST to event participants & potential sponsors. Applying our engineering knowledge, 3284 partnered with teams 1939 & 4329 to run a Go Baby Go! event. LASER modified ride-on cars in collaboration with our local hospital to give children with impaired mobility greater independence. During the pandemic,

3284 adapted GBG by running a social media campaign. To increase rural access to STEM, LASER has taken several initiatives to expand FIRST in Central MO. Our team has run 12, hosted 9 & supported 6 competitions in the past 3 years. LASER served as the FLL affiliate in the Central MO region, ensuring sustainable FIRST access across the state. 3284 also supported every competition we attended in 2022. These efforts established LASER as a dependable team within the FIRST community. To advocate for FIRST in our state, we work with state representatives to annually run STEM Day at the Capital. At this event, LASER demonstrates FIRST to state legislators by running an FLL competition & showcasing our robot. We also advocate for STEM funding & explain the opportunities FIRST provides. This is recognized in a unanimous proclamation & resolution signed annually on STEM Day. Our work was displayed on MO Net in radio interviews broadcasted state-wide. 3284 uses legislation as a method of developing mental health initiatives. We collaborated with Compass Health to find & adapt a mental health awareness curriculum. Building on our research, we contacted state senator Karla May & our state education department to pass MO senate bill 1057, requiring mental health training for all high school students.

Culminating Piece The culmination of our impact allows our pieces to share the message of FIRST around the world. We collaborate with teams internationally through a presentation at 4400's season warm-up & collaborative scouting with 9 teams at the World Championship. At every competition we attend, 3284 assists other teams through our initiative, Operation Clean Sweep. Upon arrival, we invite all teams to ask our pit for any first aid supplies, hygiene products, robot parts, tools or anything needed. LASER ensures global FIRST access by teaching teams how to bring their pieces together & reach their potential. We have started 53, mentored 33 & assisted 71 teams globally. 3284 achieves this in part by donating FIRST robot & field kits to several US states & an Ethiopian educational organization. We also met with several teams, such as 7565 & 7567 from Brazil, to share FIRST knowledge. 3284 publishes resources regarding impact, safety & robot design on our website & social media platforms. 3284 utilized our experience starting teams in our school district to start a team on the Ute Mountain Ute Native American Reservation. We donated FLL robot & field kits to a school on the reservation & provided coaches training. LASER has maintained contact to mentor them throughout their rookie season. To create a welcoming environment for women in FIRST & STEM, LASER has become involved in multiple inclusion initiatives. We recently became a certified FIRST Ladies team, creating an avenue for women in the STEM field. Furthering this initiative, we presented at Million Girls Moonshot, a conference dedicated to providing opportunities for women in STEM. To honor the work of Christa McAuliffe, an impactful woman in STEM, 3284 advocated nationally to pass the Christa McAuliffe Commemorative Coin Act & demonstrated our work on FIRSTtv to 25k viewers. In 2020, as many were isolated due to the COVID-19 pandemic, 3284 adapted our outreach to continue creating an impact. During this time, many healthcare professionals were left without PPE. LASER addressed this need by creating 3.5k+ face shields from 3D printed parts & repurposed shop materials. These were donated to local healthcare workers & military medics in Afghanistan. By publishing CAD files & sharing this effort on social media, we inspired teams around the country to continue this initiative. In collaboration with Business Insider, we displayed our efforts to sustain FIRST through the pandemic in an article read by 16k individuals. After the passing of Dr. Woodie Flowers, LASER created a movement to honor his legacy. #WalkLikeWoodie was started by LASER & adopted by FIRST in 2020. This hashtag has reached 10.1+ million people internationally & continues to share the ethos of Dr. Flowers. LASER is dedicated to creating FIRST access internationally. We held several meetings with STEM advocates, including FIRST Alumni Lucas Colonna who started FIRST programs in Brazil & the founder of STEM Center Africa. Beginning in 2021, 3284 partnered with African Sky, an international STEM organization. Through this partnership, we shared our enthusiasm for STEM with a female orphanage in Cameroon. LASER has sent several videos to introduce the students to STEM principles. The Mechanism LASER is a system of pieces working to create something bigger than ourselves. We are growing into something new every day, coming together

to embody the message of FIRST. No machine we create will endure; only the impacts we make are everlasting. When LASER's pieces work together, we transform the world. ;

