

Chairman's Award - Team 3284

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2021 - Team 3284

Team Number

3284

Team Nickname

Camdenton LASER

Team Location

Camdenton, Missouri - USA

Describe the impact of the *FIRST* 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 *FIRST* programs as mentors/sponsors.

LASER has all progressions & divisions of FIRST, providing all students the opportunity to be on a FIRST team. LASER provides hands-on FIRST & STEM experience & essential skills to build the future workforce. 100% of LASER has CPR/AED & UL Safety certifications. FIRST inspired 100% of 3284 to take weighted courses & motivated 92% of 3284 alumni to study/work in STEM fields. Being on LASER teams has impacted our alumni to stay engaged by mentoring, volunteering, & coaching in the FIRST community.

Describe your community along with how your team addresses its unique opportunities and circumstances.

Since LASER's community of 4,000 relies on seasonal tourism as our only source of revenue & 54% of students in the 372 sq mile Camdenton School District are eligible for free/reduced school lunch, FIRST is a vital resource to our rural community. LASER volunteers for food banks, fire departments & other community service projects. As an FLL affiliate, 3284 makes FIRST accessible to 61 MO counties. Due to LASER's close proximity to the MO capitol, 3284 educates state legislators about FIRST.

Describe the team's methods, with emphasis on the past 3 years, for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?

LASER's measures impact by the team members, sponsors, & communities we reach. Through the #WalkLikeWoodie movement, LASER promotes FIRST globally to share the legacy of Dr. Flowers. Through media platforms, LASER shares the FIRST message worldwide. 3284 annually works with the MO Governor to declare April as FIRST Robotics Month. 3284 was featured in Business Insider for our dedication to sharing FIRST during the pandemic, & was honored to showcase FIRST to 4.2 mil on Good Morning America.

Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.

LASER members serve as role models within our team, community & beyond. Inspired by Dr. Flowers, 3284 crafted & annually updates a Code of Ethics to guide team members through the Ethos of FIRST. LASER mentors all progressions within our school district, creating a cycle of mentorship to inspire students in all age groups. LASER members host & run camps for students & coaches. LASER continually shares resources with others through video conferences, in person events, & written materials.

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

LASER values mentorship as a vital part of starting & sustaining FIRST teams. Through on site tours, providing resources, virtual meetings, & hosting & running events, our team collaborates hands-on with teams in all progressions. In the past 3 years, 3284 has hosted & run 8 camps to educate coaches & team members on sustainability & logistics. LASER has donated FLL field kits to California, Georgia, a local team's Maker Space program, & youth in Ethiopia.

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?

LASER, reflecting the ethos of FIRST, operates with an intense devotion to invest in future generations of STEM leaders. We have done so in both our local community through career fairs, family nights & Hour of Code events & on a broader geographical range through advocating for STEM support at the MO & national capitol & running "Show Me Robots" at the MO State Fair. LASER mentors also speak about their STEM career experiences, motivating members to pursue STEM professions.

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

LASER annually partners with teams & other school districts in our region to host & run FIRST events. 3284 sponsors & mentors provide professional STEM skills that prepares students to excel in future STEM careers. LASER partners with philanthropic entities to run outreach events, promote FIRST at community fundraisers & share the importance of STEM. 3284 partners with St. Louis teams to give presentations at rookie FRC camps & collaborates with MO teams to host & run Go Baby Go! events.

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

As of 2020, 100% of 3284 leadership roles are filled by girls & 100% of girls on 3284 are planning to pursue a STEM career. Despite our community's lack of diversity, 3284 is annually certified in FIRST Equity, Diversity & Inclusion training to cultivate a culture of inclusivity. LASER officially partnered with the FIRST Ladies initiative to inspire girls in STEM. 3284 provides FIRST opportunities for every student in Camdenton Schools, regardless of their social or economic background.

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

LASER has all FIRST progressions & divisions of FLL, which cultivates FIRST interest from PreK to high school. 3284 members mentor all progressions in our school district to serve as FIRST leaders & motivators. Strong financial partnerships with sponsors & businesses allow for sustainable income to both support all LASER students & assist other teams. 3284 annually works with gov officials to secure FIRST funding, ensuring that students for years to come will receive FIRST exposure.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

LASER presents in showcases around the state including the MO State Fair & Ozark Maker Faire to reach sponsors across MO. This program encourages STEM professionals to teach a new generation of STEM leaders for workforce development. 3284 also uses our yearly orientation of our program to recruit additional sponsors. Sponsors are featured on LASER shirts, banners, & press releases. Sponsors are also invited to team meals & gatherings to engage with team members on a personal level.

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

Interest in LASER has grown so great that our resources cannot accommodate all students who apply. In response, 3284 is raising funds for a practice facility & other resources by implementing a parent booster club & filing a 501(c)3 request. 3284 worked with our school district to allocate funding for FIRST teams across our district. Our team also regularly advocates for FIRST & STEM funding to provide FIRST opportunities to more students.

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

3284 inspires a passion for STEM within our members. LASER grew to include a peak of 79 teams, providing FIRST experience to kids in PreK-12. Due to LASER's involvement within our school district, Camdenton High was the first MO public school to be awarded the Cognia National STEM certification & was named 1 of 40 FIRST Class Schools. We regularly host FLL tournaments & restructured 2021 tournaments to comply with COVID restrictions, providing the fun of FIRST competitions despite a pandemic.

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.

Last year, 3284 developed the #WalkLikeWoodie social media movement, which was adopted by FIRST this year. LASER made 3500+ face shields for healthcare workers & soldiers in Afghanistan & supplied several other teams with

materials to make 1000s more face shields. During lockdown, 3284 assisted educators & engaged students by sharing videos of members reading children's books. Continuing advocacy work during the pandemic, LASER meets virtually with MO legislators to discuss the impacts of FIRST.

Essay

What does it take to ignite change? To create a blaze from a spark? To illuminate opportunity in a time of adversity? When confronted with obstacles, it is not the challenges that define us, but our responses to them. Building a blaze is no easy task, but through FIRST, LASER is igniting a spark within individuals, a flicker within our community, a flare within our state, a flame within our nation & a blaze throughout the world. In times of adversity, we don't let the fire of FIRST burn out. We change the world, one spark at a time.

Ignite a Spark

Camdenton LASER's story began in 2009, when our team was founded as the inaugural FRC team in Central MO. As the only program in MO with all progressions & divisions, LASER leaves our mark on students of all ages. Participating in FIRST has inspired 100% of team members to enroll in advanced courses, whereas only 14% of Camdenton students are taking advanced courses this year. Each year, our closest friends graduate & share their FIRST impact around the world. 92% of LASER alum pursue STEM careers after high school, while only 48% of Camdenton students follow the same path. Through FIRST, LASER inspires a spark within individuals to become STEM leaders.

A Spark to a Flicker

Camdenton, with a population of 4000, is dependent on the tourism of a neighboring town as a source of income. Since the pandemic closed many businesses in our community, our town was especially affected by COVID19. With our district having a free/reduced lunch rate of 54%, our safe participation in events like Feed the Children, Food Pantry & Salvation Army Bell Ringing is critical to support our community's needs.

Due to lack of industry, 3284 secures funding & provides necessary STEM exposure to our community & region by sustaining relationships with businesses. In the process, our team has gained not only our strongest sponsors, but also our most influential mentors. 3284 promotes STEM in our community by working with a regional TV station to share our impact & FIRST with 1000s of viewers across central MO. LASER members use our certifications in First Aid, Stop the Bleed, Youth Mental Health, CPR & AED to assist our school nurses in senior CPR training & to assist local healthcare providers in Stop the Bleed training for teachers.

As a FIRST team, we focus our resources to help those in need. When schools around the world shut down during the pandemic, teachers were quickly overwhelmed by the abrupt shift to online instruction. Students had an especially hard time adjusting to distance learning, missing opportunities to socialize & learn with fun hands-on activities. To lighten the load of educators, LASER produced social media videos of members reading books for young students, providing activities for students to look forward to during the shutdown.

For students who are unable to participate in after school activities, our team worked with our school to create a FIRST robotics class, integrating FIRST into a traditional school day. To further promote inclusivity of life experiences, cultural backgrounds & perspectives, 100% of LASER members are certified in FIRST Equity, Diversity & Inclusion. With FIRST approval, LASER assisted in implementing an FLL Explore team for high school special education students, optimizing FLL for their specific needs as we mentor them one-on-one & inspiring them to learn, grow & become part of our LASER family.

A Flicker to a Flare

Living in a community with few financial resources, our team recognizes the importance of advocating for FIRST funding for all teams. 3284 sustains relationships with our legislators to encourage FIRST funding statewide. On STEM Day at the MO Capitol, LASER demonstrates all progressions & runs FLL tournaments. Since much of Central MO is rural, many students in our region have not been introduced to STEM programs. In response, our team brings statewide attention to FIRST as we annually work with the MO Governor to declare April as FIRST Robotics month. 3284 proudly collaborated with the MO House of Representatives to celebrate FIRST in a Resolution, which was signed by 100% of MO legislators in a bipartisan effort.

Our team provided STEM experiences through the 8 students' & coaches' camps 3284 hosted & ran. LASER annually presents at the Rookie FRC Training Camp in St. Louis on a wide range of topics to ensure that new teams have the knowledge to create sustainable programs. 3284 ran 4 programming sessions for 250 attendees at the Boy Scouts of America Invention Jamboree. As the only team to serve as a FIRST affiliate, LASER provides FIRST & STEM access to central MO through the 19 official FIRST events 3284 has run in the past 3 years. At the MO State Fair & Ozark Maker Faire, LASER yearly invites teams in all progressions to showcase FIRST & share their impact stories with 1000s of attendees. Through these events, LASER ensures that FIRST is accessible to the 61 counties in our region.

Since most students around the globe were unable to participate in a true FIRST season, our team restructured FLL competitions, allowing students to experience FIRST in-person while adhering to county, district & CDC guidelines. Providing students with in-person competition brought smiles to everyone's faces during this pandemic.

3284 has participated in 2 Go Baby Go! events where we modified ride-on cars for children with impaired mobility. Our team recognized the opportunities that GBG! provides for young children as they were able to be independently mobile, many for the first time in their lives. 3284 collaborated with a local hospital to host Central MO GBG!, bringing its impacts closer to home. In partnership with 1939 & 4329, we will host a Virtual MO GBG! social media campaign & a local event in May to assist FIRST teams to support children in their communities.

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A Flare to a Flame

3284 understands national FIRST recognition is essential for team sustainability & securing funding. 3284 has shared our knowledge by presenting Chairman's Exchanges at 7 regionals, growing programs nationwide. LASER was honored to be selected by FIRST to tell our story on Good Morning America, inspiring young minds across the nation. Our work in sharing STEM was vital to Camdenton High School becoming the first MO public school to receive the Cognia National STEM Certification.

A LASER member was selected as 1 of 5 national ambassadors for the Afterschool Alliance, where she presented a project on FIRST to members of Congress & extends her advocacy efforts as an ambassador alum. 3284 advocated for FIRST funding & the McAuliffe Commemorative Coin Act at the National Advocacy Conference in DC, where we shared our FIRST experiences with Congressional members & the Secretary of Education. In recognition of our work, 3284 was honored to be included in the Congressional Record. 3284 was invited to join the NAC Committee to promote advocacy & plan conferences.

A Flame to a Blaze

Through FIRST, LASER has ignited a blaze worldwide, reaching the lives of 7 million. Our commitment to promoting FIRST in all age groups has led our high school to be named as 1 of 38 FIRST Class Schools worldwide. LASER has given 65 presentations, including a presentation on starting FLL & FTC teams for Cerbotics 4400's 2021 virtual Warm Up event, which was viewed by 35 teams internationally. FIRST headquarters asked 3284 to appear on FIRSTtv to discuss the Christa McAuliffe Commemorative Coin Act & advocacy, where the Coin was revealed to a 25k+ global audience. LASER was featured in Business Insider, where we discussed how teams can safely flourish during the pandemic & provide youth with 21st century skills.

While inspiring the growth of FIRST internationally, LASER has started 64, mentored 71 & assisted 80 teams worldwide through video chats, phone calls, emails, site visits & providing resources in person & digitally. Our team donated FLL field kits to youth in Ethiopia, CA, GA & MO. Last year, 3284 raised funds to prepare for travel to assist at an International Tournament in Japan. To our team's disappointment, the tournament was cancelled due to the pandemic, but 3284 will use funds raised to support FIRST at a future international tournament.

At the beginning of the pandemic, many healthcare workers risked their lives treating COVID patients without proper PPE. LASER was a pioneer in 3D printing face shields to protect healthcare workers globally, with members working to create 3500+ shields. A soldier in Afghanistan saw a social media post of 3284 manufacturing face shields & asked us to fabricate 400 face shields for medics deployed in Afghanistan who were forced to reuse disposable masks. 3284 also machined & donated face shield material to teams nationally at no cost, helping produce 1000s more face shields across the U.S.

To celebrate the legacy of Dr. Flowers, 3284 created the #WalkLikeWoodie social media movement. Woodie was more than a role model to our team; he was the heart of FIRST. Dean Kamen said that no one could fill Woodie's shoes, but the FIRST community must continue to live by the ethos of FIRST just as he had. While #WalkLikeWoodie began as a small movement, it has grown to transform & inspire lives around the globe. In 2020, FIRST adopted the #WalkLikeWoodie movement to annually honor Dr. Flowers. It is our hope that the hashtag will be used to encourage Gracious Professionalism & Coopertition for generations.

We Ignite

An individual spark may seem small, but it can fuel the passion required to ignite a world of change. Empowered by FIRST, LASER has kindled the spark of individual passion to become a flicker in our community, a flare in our state, a flame in our nation & a roaring blaze in our world. As LASER members, it is our responsibility to pass the torch & sustain the legacy of FIRST. In difficult times, we do not allow adversity to extinguish the fires of FIRST; we enable passion to kindle the flames of change. WE IGNITE.