

Chairman's Award - Team 3284

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2022 - Team 3284

Team Number

3284

Team Nickname

Camdenton LASER 3284

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 provides all team members with essential skills needed to be successful in the future workforce. All LASER members are CPR certified & 92% are in weighted classes. 100% of graduating members in the past three years have gone into STEM fields after graduation, assisted by the knowledge they gained from their time in LASER. Our alumni also stay engaged in FIRST by mentoring & volunteering for other teams & events.

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

LASER is located in a rural central MO town with a population of 4,000. Due to our town's dependence on seasonal tourism, our district has little-to-no industry. Prior to state funding, we had a free & reduced lunch rate of 54%. 3284 regularly volunteers at local food banks, shoreline clean up events, & community service projects. LASER also shares FIRST statewide through legislative advocacy due to our close proximity to the MO capitol & gives demonstrations at the Ozark Maker Faire.

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?

3284 works to ensure FIRST is accessible to students across the world. Through a partnership with 2 STEM organizations, we have worked to make STEM education a reality for women in rural locations. 3284 also works to showcase FIRST worldwide through numerous media platforms, such as Business Insider, GMA, & other local news outlets. The impact made through these outreach projects is measured by the team members, sponsors & communities we reach & impact in the process.

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 actively participate in our community in order to inspire our youth to join STEM fields in the future. LASER does this through regularly mentoring all younger progressions. LASER also hosts FIRST summer camps for all neighboring communities to share FIRST & its programs, inspiring all ages to become active in FIRST. In order to follow in the footsteps of Dr. Woodie Flowers, LASER created & annually updates a Code of Ethics to share the ethos of FIRST within our team & others.

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

LASER supports FIRST & spreads the FIRST message by collaborating with teams in & beyond our area. Through emails, phone calls, & meetings, both in-person & virtual, we have assisted 71, mentored 72, & started 60 teams across all progressions. 3284 has also supported FIRST on an international scale by contacting STEM programs in locations such as Germany, Moldova, & Kenya to help start teams. We have also donated FLL field kits to STEM focused youth in the US & 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 3284 has participated in the STEM day at the MO Capitol event for the past several years, where we share our knowledge of STEM with thousands of student attendees. 3284 has also held a demonstration at the Scouts of America jamboree where our team provided the scouts with the opportunity to build & program a robot. During the summer, our team began a STEM program for grades 1-6, where the students learned and gained experience from professionals in the STEM field.

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

3284 sustains contact with organizations through emails, phone calls, & in-person meetings. We request donations such as flowers from sponsors for 3284's FIRST Flowers initiative. Together with companies such as Compass Health, 3284 learns information on issues the team is solving in education. LASER also interacts with other school organizations such as HOSA, a medical focused group based in our career building, to spread awareness of common mental health issues faced by high school students.

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

100% of 3284 members & mentors are certified in FIRST Equity, Diversity & Inclusion training, making sure all students have equal opportunities within our team. LASER also developed a FIRST approved team for high school students with learning disabilities, allowing them to engage in STEM in ways that cater to their needs. Additionally, due to the economic diversity in our school district, our team gives students of all economic backgrounds access to FIRST.

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

Camdenton is one of few schools worldwide to offer FIRST programs from PreK to high school. All progressions are mentored by 3284 members in all technical & non-technical issues. 3284 also matches all underclassmen with an experienced upperclassmen. This allows all knowledge & skills to the underclassmen, creating a FIRST pipeline. 3284 also advocates for FIRST funding annually at the MO capitol & the National Advocacy Conference in D.C. to ensure sustainability through monetary support.

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

LASER displays the team through numerous demonstrations such as the MO state fair & Ozark Maker Faire to interact with sponsors statewide. LASER interacts with their sponsors through emails, phone calls, & in person meetings. Sponsors also visit the team for team lunches & help the team by mentoring members in their STEM expertise. LASER sponsors are displayed on team shirts, competition banners, & social media platforms. Many of these social media platforms have reached national audiences.

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

While the number of girls interested in LASER programs is increasing, few girls participate in the fabrication of the robot. In response to this issue, 3284 partnered with the FIRST Ladies initiative to inspire girls to join STEM programs nationwide. 3284 has also planned a summer camp to share technical knowledge, gain insight from experts in STEM fields, & recruit girls to join the team. 3284 has shared this mission internationally by reaching out to an African STEM organization for girls.

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

Our team shares the mission of FIRST to the entire LASER program which has grown to a peak of 79 teams across all progressions. Because of this, Camdenton has been named a FIRST Class School, an award only given to 40 schools across the world. This gives students of all ages access to the life skills FIRST teaches. We prioritize not only our success, but the success of FIRST by regularly hosting & running FTC & FLL tournaments giving other teams the ability to engage in & learn from FIRST.

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.

3284 started the #walklikewoodie movement that FIRST adopted in 2020. Our goal was to push FIRST teams to act as

Dr Woodie Flowers did. That message was spread using converse, his signature shoes. 3284 has also met with members of our state legislature to add a mental health curriculum into MO schools. With the same mental health initiative, our team created FIRST Flowers, in this program we donate gifts to cancer patients & nursing home residents who might struggle with their mental health.

Essay

The ways in which we spend our time define who we are. Since the founding of our team thirteen years ago, LASER has dedicated our time to sharing the FIRST message in our community & around the world. An impact is not just measured in numbers, it is measured by the lives we touch. Even though our story is thirteen years in the making, LASER's impact is still growing every second, minute & hour.

What can we do in seconds?

As the inaugural FRC team in central MO, 3284 has dedicated our time to ensuring the FIRST message takes seconds to share, introducing FIRST to youth across the world. Camdenton, MO, home of LASER 3284, is a rural town with a population of 4k. With little to no industry, our town's residents rely on seasonal tourism for a majority of their income. Prior to a state program that provides free lunches to all students, our 372 sq. mile school district had a free & reduced lunch rate of 54%.

LASER recognizes the importance of introducing others to FIRST through direct interactions with our 34-member team, including 18 demonstrations LASER has taken part in. At these demonstrations, such as the Ozark Maker Faire, MO State Fair & our school's meet-the-teacher night, all LASER progressions engage with event participants. We teach them to drive our robot, discuss our outreach & share our personal experiences in FIRST, ensuring they understand the importance of FIRST in seconds.

To grow & sustain FIRST teams, 3284 has given 63 presentations to businesses, nonprofit organizations & school programs in the past 3 years. Through TV segments, newspapers & a billboard, our team has reached 16.2 million people. At the World Championship in 2019, LASER was chosen by FIRST to represent the program on Good Morning America. We showcased our growth & ability to sustain all progressions & divisions of FIRST, which also led us to become 1 of 38 FIRST Class Schools worldwide.

In order to show our community the same support they show our team, LASER members volunteer at community food drives, Salvation Army bell ringing & school events such as Hour of Code. These interactions take seconds, but the benefits to our community last much longer. During the pandemic, we continued safely participating & planning community events by posting social media videos of our members reading children's books to elementary students. This year, our team sought to address some of the issues created by COVID in & beyond our community. In the spirit of Dr. Woodie Flowers, 3284 started our FIRST Flowers program. We raised funds & accepted donations from our community to make flower bouquets with information on FIRST & shared our progress with 467k people on KY3, a US top 100 market news source. FIRST Flowers allows us to continue the mission of #WalkLikeWoodie, a global social media movement LASER started in 2019 to honor the legacy of Dr. Flowers. This viral hashtag reached 4.3+ million people globally & was embraced by FIRST in 2020. These social media posts take seconds to make, but the global impact lasts much longer.

What can we do in minutes?

By investing minutes of our time, LASER amplifies the impact FIRST has on teams & individuals. By running 12, hosting 8 & supporting 5 competitions in the past 3 years, LASER ensures all central MO teams have access to FIRST competitions. As the only team to have served as an FLL Explore & Challenge affiliate, 3284 has made various expos, qualifiers & championships accessible to 61 central MO counties that previously had little opportunity to compete in FIRST. During the pandemic, LASER modified tournaments & practices to address CDC health requirements, allowing students to continue enjoying their time in FIRST. Our responses were recognized in an article by Business Insider, where we demonstrated how teams can continue providing FIRST & STEM access in a pandemic.

LASER has worked to grow FIRST in our school. 3284 collaborated with our superintendent to create a curriculum for & introduce a FIRST robotics class, available to all high school students during the school day. Our dedication to promoting FIRST & STEM has made our school the first public school in MO to receive the Cognia National STEM Certification. After all of our team members became certified in the FIRST Coach's Equity, Diversity & Inclusion training, we created a FIRST-approved FLL Explore team for students involved in our school's Special Education program. All students are invited to join our FRC team, though the FLL Explore team allows students in this program to experience FIRST in a way that addresses their curriculum-specific needs.

Every minute, LASER sustains the growth of our team & others. LASER partners with our sponsors so they remain engaged with FIRST. Each year, our team sends letters to local & international businesses to introduce them to FIRST & gain sponsorships for both our team & others, ranging from US Navy engineers to parents of team members. One community sponsor, the Camdenton Optimist Club, hosted a fundraiser for our team, which is now planned & ran by LASER as a result of our sustained relationship. These sponsors are more than just monetary support as they provide professional engineering mentors who work directly with our team & often offer team members internships after graduation.

After participating in a Go Baby Go! event hosted by team 1939, 3284 collaborated with one of our sponsors, Lake Regional Health System, to host & run multiple GBG! events. During these events, LASER members adapted ride-on cars to provide children with impaired mobility the opportunity to become more independent. 3284 has continued supporting this event through a social media campaign with teams 1939 & 4329.

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LASER mentors & assists teams of all progressions online & in person. In the past 3 years, LASER has donated 32 FIRST robot & field kits around the world, including to teams in Ethiopia & multiple states in the US. 3284 has hosted & ran 6 camps for students, coaches & rookie FRC teams so they can continue their progress as a FIRST team. LASER applied these values internationally to teams & students in Brazil, Turkey, Kenya & Mali, teaching them how to gain sponsors, host tournaments & grow their programs. This year, LASER has reached out to multiple international STEM organizations to share FIRST globally. One organization, African Sky, has worked to increase girls' access to STEM in Africa. We are currently planning an event for this March to start the first all-female FIRST team in Africa. 3284 has raised funds for international outreach through our community trivia night. While this was initially intended for the International Inaugural Open Tournament in Japan, which was canceled due to COVID, our team set aside these funds for future international travel. With every passing minute, LASER is growing our international impact.

What can we do in hours?

As the minutes transform into hours, LASER spends our time sustaining a global network of FIRST access. 3284 advocates for FIRST funding on local & national levels. Each year, we collaborate with our representatives to declare April as FIRST robotics month in MO. We annually run & plan STEM day at our state capital, where we run an FLL tournament to demonstrate FIRST to state legislators & invite MO teams of all progressions & divisions to participate. At this event, teams speak to their representatives about the benefits of FIRST, which 100% of MO legislators recognized in a proclamation & resolution.

To continue our efforts in expanding FIRST, LASER members utilized our experiences participating in the National Advocacy Conference & planning a conference on the NAC coordinating committee to structure an advocacy conference in MO. LASER has contacted teams in MO & local representatives to establish the MO Advocacy Conference, which will take place on STEM day this year. Our commitment to FIRST & STEM has led us to be included in both MO & National Congressional Records. These efforts were recognized on FIRSTtv, where our team shared our advocacy in Washington DC to pass the Christa McAuliffe Coin Act with 25k viewers internationally.

This year, LASER committed hours of our time to address the mental health needs of our community from the pandemic. Our team partnered with Compass Health, an organization for mental health awareness, to create a training for high school students & spread awareness of these issues. After creating this training, team members met with our school administrators to implement this course in our school district & have collaborated with MO representatives, senators & the Department of Elementary & Secondary Education to pass legislation requiring the training for all MO high school students. This course would be implemented into the existing health curriculum through MO Senate Bill 1057, reaching every public & charter school student in MO.

In 2020, as many were quickly overwhelmed by the pandemic & left without PPE, 3284 adapted & created an innovative way to aid healthcare workers globally. We repurposed materials from our shop, used donations from our community members & 3D printed components to assemble more than 3.5k face shields for hospitals around the US & for military medics in Afghanistan. As we created these face shields, we documented our process on social media & in a local news segment, which detailed how we designed & constructed these shields & inspired teams from around the country to provide similar assistance to hospitals in their area. LASER assisted in fabricating thousands more face shields by donating manufactured parts to teams around the nation.

What can we do in 13 years?

Changing the world takes time. A second may pass in the blink of an eye, but each impact we make will grow for generations to come. Our impact is not measured in numbers, it is measured by the time we dedicate to others. Through FIRST, we have spent every second, minute & hour making an impact. With our time, we are changing the world.