Chairman's Award - Team 3284

2020 - Team 3284

Team Number

3284

Team Name, Corporate/University Sponsors

Camdenton R-III Afterschool Services/Electrovert/Boeing/Nihon Superior/Grubes/Kroger/Community Foundation of the Lake/Scott's Concrete/Lake Regional Health Systems/Maddon Metals/AJ Manufacturing Company & Camdenton High School

Briefly describe the impact of the FIRST program on team participants within the last five years.

LASER has all 4 progressions & FLL Jr Discovery, providing all students the opportunity to be on a FIRST team. FIRST provides LASER members with hands-on STEM experience & essential skills for the workforce. 100% of LASER members have CPR/AED & UL Safety certifications. FIRST inspired 100% of 3284 members to take weighted courses & motivated 92% of 3284 alumni to study/work in STEM fields. Being on LASER's FIRST teams has impacted our alumni to mentor, volunteer, & coach in the FIRST community.

Describe the impact of the FIRST program on your community within the last five years.

FIRST impacts our community through numerous events, including Central MO Go Baby Go, where our team modified 20 ride-on cars for children with impaired mobility. LASER has worked at local food banks, the Missouri Water Auxiliary, & partnered with our local fire department to donate smoke detectors to families. As a FIRST affiliate for FLL and FLL Jr, 3284 is able to make STEM accessible, not only for the 426 FIRST students in our district but for youth across 61 counties in Central MO.

Describe the team’s methods for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative.

LASER understands the importance of spreading the FIRST message. Our team has reached 8.9 mil. using social media, news articles, TV, radio, websites & magazines. LASER annually runs demos at the MO State Fair, Ozark Maker Faire & MO STEM Day at the Capitol, providing face-to-face interactions with all 4 progressions. LASER yearly works with the Governor to proclaim April as FIRST Robotics month. 3284 was honored to be showcased by FIRST on Good Morning America, sharing FIRST with 4.2 million.

Describe examples of how your team members act as role models and inspire other FIRST team members to emulate.

LASER members strive to serve as role models in all we do for the FIRST community & beyond. Inspired by Dr. Flowers, LASER yearly updates a Code of Ethics to live by the ethos of FIRST. 3284's devotion to sharing FIRST motivates members to host, run & volunteer at FIRST events & camps. LASER showcases other teams at events to encourage growth & promote a culture of leaders. To inspire girls in FIRST, LASER became the MO Regional Partner for FIRST Ladies.
Describe the team's initiatives to help start or form other FRC teams

LASER believes that mentorship is essential to forming new FRC teams. LASER provides on-site tours for those starting FIRST teams, where members demonstrate the designing, fabrication & programming of our previous season's robot as well as sharing our safety & chairman's programs. In addition, LASER presents to teams at season training camps. 3284 runs rookie coaches & team camps. LASER provides a robot & drive coach to rookie teams at off-season events & mentors them throughout their season.

Describe the team's initiatives to help start or form other FIRST teams (including Jr.FLL, FLL, & FTC)

LASER has started 130 FRC, FTC, FLL, FLL Jr & FLL Jr Preschool Discovery teams. Our team has hosted 16 camps for coaches & students to inspire interest in FIRST & STEM. At various events, LASER demonstrates all 4 FIRST progressions so that visitors have the opportunity to observe FIRST in person. At these events, our team provides information to visitors interested in starting their own teams. 3284 donated FLL field kits & EV3s to Mexico & the Dominican Republic to start teams.

Describe the team's initiatives on assisting other FIRST teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the FIRST program

Through emails, site visits, resource sharing, video chats & phone calls, 3284 actively works to assist all teams from any progression. As the Central MO Affiliate for FLL & FLL Jr, 3284 makes FIRST more accessible & cost-efficient by hosting & running official FTC, FLL & FLL Jr events closer to teams in our region, reducing travel fees. In the past 5 years, 3284 has assisted 188 teams from FLL Jr to FRC in the spirit of Gracious Professionalism & Coopertition.

Describe how your team works with other FIRST teams to serve as mentors to younger or less experienced FIRST teams (includes Jr.FLL, FLL, FTC, & FRC teams)

LASER has mentored 114 teams, ranging from FLL Jr Discovery to FRC across MO. 3284 members mentor all progressions within our school district, instilling a culture of mentorship in our program. LASER often travels to other areas to assist coaches & teams with programming, presentations, & team management. Our team has helped with fundraisers & shared sponsorship strategies with others. Additionally, LASER has given tours to school district administrators to share the impact of FIRST.

Describe your Corporate/University Sponsors

Our sponsors are more than our financial support- they are our mentors, community support & our biggest fans. Optic Armor, KLA, Lake Regional Health Systems, Gerbes, Scott's Concrete, Camdenton R-III Schools, Lake Aviation Center, Madden Metals, Angela's Catering, GoBilda, Electrovert ITW EAE, Nihon Superior, Boeing, Lake Professional Engineering Services, LotoLift, Community Real Estate Co., Lakewood Diving & Recovery, Camdenton Optimist Club, Community Foundation of the Lake, & AJ Mfg.

Describe the strength of your partnership with your sponsors within the last five years.

LASER develops & maintains strong partnerships with our sponsors. Marketing & media help showcase our sponsors' generosity to our team, community & beyond. Many of our sponsors participate in community give-back programs that benefit LASER financially. Our sponsors provide professional mentors to students in all FIRST progressions & recognize that FIRST develops MO's future workforce.

Describe how your team would explain what FIRST is to someone who has never heard of it

LASER would describe FIRST as an opportunity to change lives! It is a program that inspires, motivates & impacts participants through STEM education, Coopertition & Gracious Professionalism. FIRST takes what is learned in the classroom & applies it to real-world situations using 21st Century Skills. FIRST allows students to realize that their tomorrow does not have to look like their today.

Briefly describe other matters of interest to the FIRST judges, if any

To honor the legacy of Dr. Flowers, 3284 created the #WalkLikeWoodie movement on social media. In May, LASER is traveling to Japan to assist & volunteer at the International Open Tournament for all progressions. Our team was honored to be added as part of the Congressional Record by Rep. Leutkemeyer for our work in FIRST & STEM. LASER collaborated with a MO Representative to sponsor a House Resolution to celebrate FIRST, which 100% of MO Reps. signed.

For FRC teams older than 5 years, briefly describe your team's broader impact from its inception.

The St. Louis Post Dispatch described Camdenton as "The Capitol of Youth Robotics". A program like FIRST wasn't expected to expand in such a rural area. However, as the inaugural FIRST team in Central MO, LASER grew from 1 FRC team to 79 teams across all FIRST progressions & FLL Jr Discovery in our district. Because of the involvement of our team & school, our district was named a FIRST Class School & the first MO public school to be awarded the Cognia National STEM Certification.

Team Captain/Student Representative that has double-checked this submission.

Vanessa Dunham
**Essay**

When you look in the mirror, what do you see? Who do you see? What lies ahead? The possibilities are endless. A reflection can only be understood properly if we utilize it to move forward. Forward, to a world where the ethos of FIRST is instilled in all that we do. A world where dreams become reality. A world where our reflection is far more than meets the eye. A reflection that we initially did not know existed, but now realize we cannot exist without. When we look at our reflection, what do we see?

We See Resilience...
Camdenton LASER 3284 is the inaugural FIRST team in Central Missouri. Camdenton is a rural town with little industry & a population of 3,691. Based in the 372 sq. mile Camdenton School District, 3284 began as 1 FRC team & has grown to include 1 in every 10 students in our district across all progressions. LASER is the only program in MO to have all progressions & Discovery, with a total of 79 teams & 426 students. LASER was 1 of 12 original international pilots of Discovery. LASER builds relationships with businesses & sponsors to equip students with real-world experience. Due to the dedication of our team & school, Camdenton HS became the 1st public school in MO to be awarded the Cognia National STEM Certification & is 1 of 40 FIRST Class Schools worldwide. LASER understands that the challenges of our past help form our resilience needed to continue the growth of our program.

We See Passion...
LASER's strength & passion is helping those around us. This passion has led 3284 to give over 210+ presentations at local, state & national levels. To promote FIRST in our school district, our team participates in career events, family nights, student showcases & other events. LASER yearly mentors students district-wide for the global Hour of Code challenge. Working with our superintendent, 3284 established a robotics class available to all HS students. Due to LASER's dedication to FIRST, our teams were featured in a MO School Board Association video that was sent to all MO school board members & 600+ superintendents.

LASER is proud to be in a community that passionately supports FIRST. In return, 3284 participates in outreach that directly impacts our community. Working with the Foundation of the Lake, LASER members gave smoke detectors to families. LASER volunteers at events such as Feed the Children & the Lake Area Mobile Food Pantry. In addition, LASER annually participates in the Ozark Maker Faire & runs Show Me Robots at the MO State Fair, inviting teams from all MO progressions to demonstrate to 1000s of attendees & promote FIRST.

After participating in a Go Baby Go event hosted by team 1939, LASER partnered with our local hospital to host & run the Central MO Go Baby Go Event. Our team created 3D printed parts, wrote manuals, & with the help of other teams, modified 20 motorized ride-on cars for children with impaired mobility. LASER donated the cars to the hospitals physical therapy department & the Children's Learning Center, as well as STEM books & games to the pediatric wing. LASER's passion is to share the ethos of FIRST in our community & beyond. Our program has reached a total of 8.9 million people through multiple platforms. For the past 2 years, a local news channel broadcast updates of LASER's progress throughout our season, reaching 1000s of viewers. At the 2019 Championship, FIRST requested 3284 to be part of a feature on Good Morning America, which broadcast the impact of FIRST to 4.2 million viewers. LASER's passion has become the driving strength that we use to help our community, those around us & the world.

We See Influence...
LASER believes that educating others through advocacy & legislative work is essential to influencing the growth of FIRST. LASER has developed strong relationships with our legislators, including Representative Pollock, sponsor of the MO House Resolution celebrating FIRST Robotics, signed by 100% of MO Reps. 3284 assisted our school district by training 12th graders in CPR, mandatory under Senate Bill 7-11. LASER annually helps run MO STEM Day at the Capitol & invites FIRST teams from across the state to participate & advocate for FIRST. Additionally, 3284 collaborates with the MO Governor yearly to proclaim April as FIRST Robotics Month, emphasizing the importance of FIRST & STEM in our state.

LASER continues to be a national influence for FIRST. Team member Maya was chosen as 1 of 5 National Afterschool Ambassadors. She created a project promoting FIRST that was shared with Congress & other individuals on Capitol Hill. 3284 participates in the FIRST National Advocacy Conference in DC to advocate for FIRST funding. LASER members were selected as part of a team that met with the Secretary of Education to discuss FIRST. NAC extended an invitation for 3284 to be part of the 2020 Coordinating Committee to plan the upcoming conference & promote NAC. LASER was honored to be made part of the 2019 Congressional Record by Congressman Luetkemeyer to recognize our efforts to expand & grow FIRST & STEM. Through advocacy, LASER influences the global growth of FIRST & STEM.

We See Sustainability...
LASER's mission is to ensure that teams have resources to create, grow & sustain FIRST programs. In 2017, FIRST included LASER in a Case Study for growth, sustainability & outreach in rural areas. For the same reason, 3284 serves as the Central MO Affiliate for FLL & FLL Jr, which covers 61 counties & 38,562 sq. miles. Uniquely, LASER is the only team to serve as a FIRST affiliate. LASER annually purchases 35-40 FLL field kits for qualifiers using grants & business sponsorships as the affiliate. To educate coaches in central Missouri, LASER coaches are working to become official FIRST trainers. LASER has run 76 events, including 16 camps & 33 official FIRST events to ensure the growth of FIRST in our school district & beyond. To cultivate FIRST in MO, LASER hosts & runs numerous official FTC, FLL & FLL Jr Expos, meets, qualifiers, kickoffs & championships. 3284 also runs an offseason event for FTC, FLL & FLL Jr at the Central MO FRC Regional to allow visitors to interact with all progressions of FIRST. This May, 3284 is traveling to Japan to volunteer at the International Open Tournament for all FIRST progressions.

This year, 3284 ran 4 FIRST sessions to teach programming to 250 participants at the Boy Scouts of America Invention Jamboree. At this event, the Governor & First Lady of MO spoke about the importance of FIRST & STEM. This year, 3284 is honored to have been named the MO FRC Regional Partner for FIRST Ladies. Our team will run an official FIRST Ladies event at the Central MO FRC Regional as well as events for younger FIRST students & high school students in our district. By running events, providing resources & promoting FIRST & STEM interests, LASER is ensuring that FIRST teams remain sustainable for years to come.

We See Transformation...

Through applying the values of FIRST, LASER has seen an incredible transformation in the lives of our team & others. FIRST has inspired 100% of our team members to take weighted/advanced courses & have impacted 92% of our alumni to study/work in STEM fields. 3284 created the Todd Funke Memorial Scholarship to help team members expand their education & prepare for the workforce. LASER believes that instilling a strong safety culture improves the safety of others. Because of this, 100% of 3284's members have certifications in CPR & AED; Equity, Diversity, & Inclusion; & UL Safety. Additionally, many team members have certifications in First Aid, Stop the Bleed Trauma & Youth Mental Health First Aid.

Inspired by Dr. Woodie Flowers, LASER members created & annually update a Code of Ethics to uphold the ethos of FIRST. At the World Championship, team members met with Dr. Flowers about our Code of Ethics, which is featured on his Mobius website. To celebrate Dr. Flowers, 3284 created a #WalkLikeWoodie movement on social media. What began as a small idea grew into a large movement, with posts from around the world. Dean Kamen said no one could fill Woodie's shoes, but the FIRST community can continue to walk & live as he did. 3284 is thankful for the opportunity to help carry on his legacy by making #WalkLikeWoodie an annual tradition.

Sharing our experiences & what we have learned with others is something our team sees as one of the most important parts of FIRST. As a result, 3284 has shared 25 published resources through presentations & online media. To help create & transform FIRST programs, LASER has started 130, mentored 114, & assisted 187+ teams. 3284 has assisted & mentored numerous teams through video chats, phone calls, emails, site visits, providing resources & has also equipped rookie FRC teams with a robot & drive coach at off-season events. LASER donated FLL field kits to teams in California, Georgia & a local team's Maker Space Program, as well as EV3s & field kits to teams in MO, Mexico, & the Dominican Republic. 3284 has also assisted teams from Israel & China by providing them tools & resources at the championship.

LASER annually presents at the St. Louis FRC Training Camp to educate teams on safety, Chairman's & machining. 3284 has participated in Chairman's Exchanges at the past 6 regionals that we have attended & will continue to this year. LASER is running a first aid safety course at the 2020 Central MO Regional to expand safety knowledge. LASER strives to transform our own team members & others so that teams we once mentored become mentors for those around them.

We See Tomorrow.

Reflection is about remembrance, but it's also about looking forward. Through FIRST, we are moving to a future where all things are possible. As we look back on the experiences of years past, one thing is clear: our reflection is not to be forgotten; it is a tool to build the future. In our reflection, we see resilience, passion, influence, sustainability & transformation. We see our tomorrow. What do you see?