

Chairman's Award - Team 1730

Team Number

1730

Team Name, Corporate/University Sponsors

R&D Leverage / Cerner / Black & Veatch / Fike / Sioux Chief / Kastle Grinding / Hallmark Cards / Sprint / 5 Star Embroidery / KC STEM Alliance / Pickett Family & Lee's Summit Sr. High

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2016/2017 year and the preceding two to five years

The FIRST program provides us with a beneficial outlet for our ingenuity. Along with learning to build a robot, members gain a sense of teamwork, organization, time management, problem solving and leadership. In the last four years through partnerships with organizations such as Cerner and Honeywell, we have been able to receive internships and work-world experiences in STEM careers. We also keep track of the lasting impact of FIRST on our alumni through our Team Driven Alumni Network.

Describe the impact of the *FIRST* program on your community with special emphasis on the 2016/2017 year and the preceding two to five years

1730 hosts an annual off-season event, Cowtown Throwdown (CTTD). CTTD introduces the public to FRC and FLL programs. 1730 creates visibility through participating in community events. We also use our current programs, like JRL, as platforms to gather donations for organizations such as Hope House. Through this, FIRST ideals are brought to groups not originally associated with STEM initiatives. Our presence at KC Maker Faire brings the FIRST message to more than 16,000 people.

Team's innovative or creative method to spread the *FIRST* message

1730 spreads the FIRST message to children and parents through summer camps, Junior Robotics League (JRL), innovative App Camps as well as serving an organization overseas. This year our summer camp programs reached 118 children, App camps reached 189 kids, and JRL involves more than 165 students. We also use our team as a platform to amplify FIRST's message through our charitable donations to the OneSky for All Children foundation in China as well as supporting our sister team in Taiwan.

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

1730 aids other teams to be the best they can be, even if that means the other team becomes the match winner. 1730 sets up a Tool Shop at every competition to support other teams by lending a single part or tool, or going as far as reconstructing an entire robot to pass inspection. At any point during a regional, you can find a Team Driven member helping another team in need. We share our passion overseas as well through our Taiwan sister team, inspiring them to start their own robotics team.

Describe the team's initiatives to help start or form other FRC teams

This year, one of our new team members, who moved from Panama City Beach, Florida to Lee's Summit, MO, fell in love with 1730 and wanted to share FRC with his old high school, JR Arnold High. We have been in communications with them and they will be starting an FRC team next season because they have seen the impact FRC has been able to have on our community through 1730. CTTD also exposes potential FRC teams to competition action, giving them experience as they embark on their rookie year.

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

1730 uses JRL as a tool to build interest in FIRST teams among students. This interest is a gateway to FIRST programs such as FLL, FTC, and FRC. This past year, 1730 fulfilled our longstanding goal of starting an FLL and FTC team at our feeder elementary and middle schools. 1730 is still working to start more FIRST teams in our local area. 1730 is proud to say we are spreading FIRST around the world; this year we have partnered with Morrison Academy in Taiwan to start Taiwan's first FTC team.

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

As a founding member of KC Power Source, we provide opportunities for students to gain knowledge of computer science and software development by creating mobile applications. By training 6 other teams to deliver these camps, we assisted those teams by providing them with a method to obtain sustainable funds. Team 1730 also assisted team Lawrence Free State 5119 with their shop organization. The team also provided 16 FLL teams an opportunity to scrimmage during Cow Town Throwdown.

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)

1730 has an ongoing mentorship of FTC team 12381. This team, which 1730 started at our local middle school uses our shop as their workspace. This allows them to meet 1730 mentors and students who will inspire them to continue with FIRST as well as provide knowledge. Specifically, 1730 has taught 2 girls from this team how to program. 1730 alumni are encouraged to mentor FIRST teams. We have alumni coaching teams 4206, 1619, and 1011. Another alumnus coaches many FLL teams in Camdenton, MO.

Describe your Corporate/University Sponsors

We generate more than 60% of our working capital and the remainder is provided by our partners. The partners' support is more than financial. Many partners, such as Fike, Kastle Grinding, Hallmark, and Sioux Chief provide equipment & building materials. R&D Leverage provided building space and mentors. Mentors from Black & Veatch, Burns & McDonnell, Honeywell, State Farm, and Hallmark spend countless hours mentoring. Cerner, Hi-Tech Solutions, and Honeywell offer internships for our students.

Describe the strength of your partnership with your sponsors with special emphasis on the 2016/2017 year and the preceding two to five years

Creating strong partnerships is a priority for 1730 and now part of our team identity. The strength of our partnerships is shown by their longevity, their donations of equipment, and sharing of mentors. This allows our partners to look to the team for future employees. Our partnership with Cerner led to the creation of the Cerner Scholar's program allowing students to work at Cerner during the school day for high school credit while gaining work experience and developing business connections.

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

FIRST is a robotics competition that is much more than robots. It creates opportunities through robots that empowers youths to explore STEM, develop leadership skills and attain career related experiences. The skills learned from being a FIRST member translate to all aspects of life. From web design, writing essays, or running businesses, the FIRST program is about the value of diversity. FIRST provides opportunities for young students to showcase their abilities and potential.

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

Team Driven equips its members with the skills needed to be confident leaders long past their high school years. This is made possible by our mentors who challenge us to reach our full potential, both in life and in robotics. Team members seize opportunities to gain the skills necessary to shift the culture wherever they are. It is because of this unwavering support, all of Team Driven's major programs are student led and mentor empowered.

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

Madeline Stouffer

Essay

Twelve years ago the founding members of Team Driven were inspired by the principles of FIRST and the impact this program could make on students. Today's Team Driven, building on the foundation of sustainability, inspiring young minds, and empowering students, is paving the way for the next era of Team Driven. Team Driven is growing its sphere of influence to include our local community and the global community as well. Today, as these communities evolve, so does Team Driven. Committed to a mindset of engage, evolve, and empower, we are continuing to transform the culture of the world we live in to expand the awareness, impact and influence of robotics.

Transforming the culture and engaging the local community is essential to fulfilling the charge of a Chairman's quality team. Engagement is one of our core values. We make it a priority to put our passion for STEM and robotics on display and our Fall Lawn Rescue program (FLR), among others, is key in providing a platform to engage the community. FLR is a student-run aeration and verticutting business we have run for the past 9 years. It is a meaningful way for our team to further cultivate a strong community presence, provide a quality service for our customers, and create a sustainable revenue source ensuring our team will be around for many years to come. This year Team Driven members provided

service to 111 customers and grossed \$18,355. At each jobsite, team members seize the opportunity to personally engage community members and explain our passion for FIRST and STEM.

In addition to engaging our local community, Team Driven also engages the FIRST community. Since 2008, Team Driven has hosted an off season competition called Cow Town ThrowDown (CTTD). Originally held on the Cerner Campus with 28 teams participating, this program has grown so much we decided to move it to our Lee's Summit High School Fieldhouse. We now accommodate more than 50 FRC teams from as many as 6 states and 2,000 community members who participate each year. This event is comparable, if not larger than, some regular season regionals and Team Driven provides the resources to make it happen. At CTTD, Team Driven also hosts an FLL scrimmage for 16 teams. Through CTTD, Team Driven engages and supports the FIRST community, as well as exposing our local community to the world of FIRST.

Our most recent engagement initiative is providing the youth in our community early exposure to robotics. We started and are mentoring an FLL team and an FTC team at our local elementary and middle schools. To ensure our new FTC team will be successful, we invite them to use our shop as their workspace. Team Driven members mentor these young minds who will soon become the next addition to the FRC family. We not only introduce them to a lifelong love of FIRST and STEM, but we expose them to Team Driven members as role models to emulate as both parties grow in their STEM experience.

Although Team Driven is incredibly proud of the foundation we have built to engage the community, we recognize this is not enough. To build upon this strong foundation, we must continually evolve to address the ever changing needs around us. To meet these needs, we have developed several offseason programs that we continue to evaluate and improve. One program that has significantly evolved is our app camps. When Team Driven first began our app camps in partnership with Sprint and Cerner, the goal was to cultivate an interest in programming apps for smartphones and tablets, which were relatively new devices. After 5 years of success, our app camps have addressed this need and Team Driven is evolving our programming camps to focus on the Raspberry Pi and Arduino platforms: the devices of the future! By providing this new programming camp, Team Driven is continuing to create a growing interest in programming in our community.

Another program Team Driven is continuing to evolve is our Junior Robotics League (JRL). Starting in 2008, Team Driven has hosted JRL every year for students K-8th grade, instilling in these students a love of STEM. This program is modeled after the FRC program: kick-off event, build season, competition, and awards. Team Driven students create a unique game challenge, competition field, and provide mentoring, instruction, administration and operations staff for the event. This year, Team Driven evolved our current JRL competition to increase engagement with our community. Hope House Treatment Center, a local refuge for women who have suffered domestic abuse, came to us for help: they were in short supply of personal care items. Due to our strong community presence, Hope House knew we had the connections and resources required to help fill their need. With that in mind, Team Driven challenged our JRL teams to collect donations. They exceeded our expectations; we were able to gather over 650 items for Hope House and teach over 300 young students the value of contributing to the betterment of our community. Partnering JRL with Hope House has formed an alliance that will continue on for years to come.

A third example of this evolution is our summer robotics camps. For each of the past 10 years, Team Driven has offered multiple week-long summer camps, teaching the building and programming of robots to kids in grades 4-8. At the end of each week, parents and students remarked how they loved the camp, but wished a younger friend or sibling could attend. Younger participants in JRL also expressed a desire to attend camps. Recognizing this untapped enthusiasm for robotics, we decided to embrace it by evolving our existing summer camp curriculum and creating a camp designed for kids in K-3rd grade. In our new camp, Bricks to Bots, campers have a week to build a robot out of LEGO Mindstorms that they then use to compete with on Friday in front of parents and special guests. In each of these cases, Team Driven listened to the needs of our community, reshaped our programs and established new programs to help us achieve our vision of a community inspired by the STEM experiences we provide.

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Team Driven empowers every single student, community member, and parent that we come in contact with. Whether it's a 3rd grade classroom, high school physics class, or the professional workforce, this empowerment is evident, spreading the ideals of FIRST and STEM far beyond what Team Driven could ever imagine possible. This is the ambition of Team Driven, and because of this, we recently broadened our reach far beyond the confines of Lee's Summit, Missouri, USA. Last summer, Team Driven arranged for a programming teacher from Morrison Academy in Taichung City, Taiwan to come visit our shop and talk to some of our students and mentors about who Team Driven is and why we are so passionate about FIRST. After his joking request to adopt half our team, we came to the more realistic compromise of helping him start a robotics program at his high school in an effort to impact his students' lives the same way our students' have been. He left inspired. Since that visit, Team Driven has been in weekly communications with this teacher as they tackle the task of bringing FIRST to Taichung City, something that has never been done before. After exchanging multiple videos, the students on Team Driven have connected with and learned more about Taiwanese culture, all the while sharing with them our passion for FIRST and robotics. Team Driven's sister team in Taiwan competed in their first robotics competition this past fall and will be starting an FTC team next year.

Another example of our commitment to empowering people is how Team Driven works to utilize the community

relationships we build to raise funds and support worthy causes. We recognize the necessity of not only empowering students in STEM, but also in empowering students who are not directly affiliated with a STEM organization by using STEM and FIRST as an outlet. Recently, a few Team Driven members came to the team with a mission: the foundation that supports the orphanages from which they were adopted reached out to them because they were in need of some help. The OneSky for All Children foundation accumulates money from all over the world that goes towards training nannies, teachers, and foster parents to care for children in orphanages. These students approached the rest of Team Driven because they had experienced the familial support our team fosters and knew we could help. Because of our sheer size, we can provide a greater impact together as a team than they could on their own, amplifying their voice. This is another example of Team Driven empowering our students through sending not only funds, but an appreciation of FIRST and STEM overseas. We chose to assist this charity to amplify our global voice and spread the word of FIRST ideals through giving, as well as supporting a very deserving cause.

When a team experiences a tremendous run of success comparable to the one Team Driven has, it is easy to become complacent. Team Driven avoids this complacency by continuing to create programs that engage and empower the community while also evolving alongside the ever changing needs of our spheres of influence, both local and global. These elements are evident in all that Team Driven does. By continuing to grow and evolve our team, we build upon our already substantial foundation, giving future Team Members the tools needed to continue to transform our culture into one that celebrates achievements in STEM. We engage the community, evolve to fit its ever-shifting needs, and empower our own members to the extent that they have the passion to inspire others. Inspired by FIRST, Team Driven shifts the culture not only in our own community, but across the world.