

Chairman's Award - Team 5811

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2019 - Team 5811

Team Number

5811

Team Name, Corporate/University Sponsors

University of Dayton&K12 Gallery & TEJAS&Dayton Early College Academy, Inc

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2018/2019 year and the preceding two to five years

When students join BONDS, they are joining more than just a robotics team, they're joining a family. Students on our team are welcomed and encouraged to explore the STEM community. Our team transforms members into STEM leaders with impeccable passions for FIRST. Our students have a 100% postsecondary education rate, 75% receive full rides, and 100% receive scholarships. Most importantly, they stay involved in FIRST through volunteering and mentoring, even creating a FIRST mentor club at college!

Describe the impact of the *FIRST* program on your community with special emphasis on the 2018/2019 year and the preceding two to five years

Reaching nearly 50 million people in 6 countries and 10% of Ohio's population, our life changing reach spreads far beyond Dayton. During the past few years, our team has used FIRST's principles as a guide to inspire the formation and growth of hundreds of teams. BONDS has been covered by numerous news stations and newspapers because of the impact we have had on the community; FIRST has improved our community drastically by facilitating growth in STEM fields for all ages.

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

We go above and beyond the typical ways of spreading the FIRST message. We firmly believe that diversity is the key to success and we follow this same principle with our outreach initiative. We created a music video and brought community members in to our shop as extras, and we even added a storyline to our reveal video to get kids excited about FIRST. Jerri Stanard, Director at K-12 Art Studio said, "It's so much fun to see how technology and studio arts work well together."

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

To increase sustainability, we directed a FIRST mentor training camp to motivate and inspire others to become mentors and role models in their communities. We work with hundreds of young students to get them interested in FIRST and STEM at our over 30 outreach events this season. An FLL student, said that we "taught [him] what it meant to be a gracious professional." With every student we mentor and every outreach event we host, we teach others truly what it means to be a gracious professional.

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

We work with local schools, as well as organizations like the Wright Patt Educational Outreach Office, to help start teams. We helped start FRC team 6936 Vault as well as working in New Lebanon to help create a team by bringing an off season project, a collaborative t-shirt shooting robot. Additionally, we volunteer at many FLL competitions to encourage teams to continue onto FRC. Through our extensive outreach program, we have enabled students in our community to find their place in FRC.

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

In addition to running the University of Dayton and Yellow Springs FLL tournaments and volunteering at many more, we provide resources and support to numerous schools and community groups to start teams. We have donated 7 Ev3 kits to FLL teams at title 1 schools and have helped start over 50 FLL teams. We also helped start FRC team 6936 Vault and mentor rookie FRC team 7434 Beyond The Stars. We are also working to start FLL and FTC teams at the Byimana School of Sciences in Rwanda.

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

Our team members have assisted over 1,000 FIRST students in all four programs. We are developing a feeder program across Dayton so that kids are supported in their FIRST journey from FLL Jr. to FRC. Additionally, we keep an open shop policy, inviting all surrounding students to come to our shop, collaborate, use our resources, and strategize. We also invited over 10 FIRST teams to be a part of our 2019 FIRST parody video. We truly value the personal connections we've made with the other teams.

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)

This year we ran a mentor training camp where we taught students and parents from around Ohio the value of becoming a FIRST mentor and the genuine impact you can have on other's lives. Additionally, we have supported the FLL Rookie Camp for the past 4 years. Through this, were able to make a lasting, authentic impact on the students in our community by inspiring them to pursue STEM. We also work hard to increase sustainability by offering teams the use of our 501(c)3 non-profit organization.

Describe your Corporate/University Sponsors

Our international sponsor pool is made up of companies who support us more than just monetarily. Over 50% of our sponsors have partnered with us for multiple years by providing mentors, donating resources, helping us mimic engineering in the professional world, and even offering internships. These companies share the same vision as BONDS: to inspire local students. Some of our most valuable sponsors are University of Dayton, RealArt, Teradata, and Woolpert because of their immense influence.

Describe the strength of your partnership with your sponsors with special emphasis on the 2018/2019 year and the preceding two to five years

We send weekly newsletters throughout the build season to our partners and one of them even commented, "This newsletter is one of the most well written and edited pieces I have seen at any level." Additionally, we maintain student connections with each sponsor and invite any sponsor to visit our shop any time to see their impact on our team. We hold a social with our sponsors every year to show them how grateful we are for their support and further introduce them to the FIRST community.

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

While FIRST is mainly seen as a robotics program, it is so much more than that. FIRST is a worldwide organization inspiring students to change the world through STEM education. On a FIRST team, you learn countless skills that will prepare you for a successful career. You will have the opportunity to work with engineers and other professionals to create truly spectacular robots and market your team like a pro. FIRST provides unique opportunities transforming students everywhere into STEM leaders.

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

We connected two different communities in our area and the steps we have taken are creating an identity for us and changing how we see our place in the world. We are a team that focuses on community and creativity by embracing our differences and celebrating them. We show the world that STEM and FIRST can truly change lives. From the beginning with two very different schools transforming into one solid, functioning team, we are working hard to "BOND" Dayton together into a community.

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

Alex Ronnebaum

Essay

It's 2009. Dayton's last Fortune 500 company announces its departure. Its murder rate remains higher than even Chicago. However, entrepreneurs still see Dayton for the gem it is. Investors are trying to rebuild the infrastructure to strengthen the city starting with basic community needs such as renovating old structures, building restaurants, and creating parks. Money can only be part of the solution and there is still a big problem that has not been addressed: community division. The suburbs have grown at Dayton's expense, leaving the city struggling to find its place. Thus, Dayton gets progressively worse. Fueled by the media, stereotypes of a corroding metropolis and snob-filled wealthy suburbs keep Dayton's neighborhoods separate.

6 years later, driven by their genuine passion for bringing real change, students from Dayton Early College Academy and Oakwood set out to build a bridge between their communities. The students recognized that, if they were able to overcome their challenges together, their differences could become their greatest asset. They focused on the ideals of FIRST as common virtues to create a vibrant and diverse team. Team 5811 was born out of the resulting desire to "BOND" Dayton together, but the founders of the team never imagined that they could bring so many different generations together under the banner of FIRST.

We earned Rookie All-Star at the World Championship in 2016 and used this achievement as momentum to spread the message of FIRST to our community. Our students have clocked in over 7,000 hours over a short, 4-year period. By sharing our passion for STEM, we strive to shatter social boundaries and defy Dayton's stereotypes. Even our name, BONDS, "Bringing Opportunities Near Dayton Students," shows our overall goal. This past season, we have encouraged our members to show others the power and significance of STEM by volunteering with younger FIRST programs. We have assisted over 100 FLL and FLL Jr. teams in the last 4 years and believe it is our responsibility to give back to other students due to the immeasurable impact that FIRST has made on our lives. We are undeniably "Bringing Opportunities Near Dayton Students."

Our commitment to the community allows us to engage with anyone from kids in elementary school to senior citizens. One of our mentors, before discovering BONDS, was suffering from PTSD from his experiences in the Vietnam war thirty years prior. He had deep emotional trauma, problems with prescription drugs, and trouble finding his calling in life. In his words, "BONDS gave me a purpose." After his time connecting with our team, he is back at school to become a music therapist. By using his degree to help others in need, he has found a new meaning in life.

We see our outreach as a beacon for others, showing the impact of STEM education and FIRST values all around Dayton. Our team has a lot to give back, and we recognize this by mentoring a rookie FRC team nearby and establishing a solid foundation for FLL and FTC in various Dayton elementary schools. Following in the footsteps of FRC Team 3138, Innovators Robotics, our dedicated mentor from our first season, it is high on our priority list to connect with local FRC teams. Some of the teams we work with include Team 6936, Vault; 20, the Rocketeers; and 7434, Beyond the Stars. These collaborations have positively impacted not only our team but dozens of others.

The team also collaborated with the International College of Broadcasting to market our team by producing songs and music videos. This was a unique opportunity for us to learn professional cinematography skills and get a behind-the-scenes look at how videos are produced. It was also a chance for the team to introduce the concepts of robotics and FIRST core values to artists and musicians worldwide.

Our mentors represent many companies and investors in the Dayton area. The level of devotion they give to our team is out of this world; they put everything into inspiring the future generations of STEM. Our mentors inspire us every day and we can look up to when we are in need of guidance. The mentors let us learn from our mistakes, which helps us gain confidence and leadership. As a testimony, in the summer of 2017, 80% of our students were working in high achieving summer jobs as interns. Some of their internships included the Wright Patterson LEGACY program, United States Air Force Research Lab, Wright Scholars, and the University of Dayton Research Institute.

The University of Dayton (UD) is a key component of our team's success. They have been our team's partner for four years and have provided financial resources as well as dedicated faculty and student support. With their help, we were able to run the UD and Yellow Springs FLL tournaments, the two largest FLL events in Dayton for the past three years. Through running these tournaments, we have sparked new interest in FIRST and STEM to children and adults in the community.

A noteworthy impact we have on our community is how we unite people from different backgrounds. Of a team composed of 39 high school students, 30% is female and 48% of our members are from underrepresented minority groups. Our students come from 11 Dayton area high schools and homeschools. Members of our team aspire to become engineers, educators, and writers, just to name a few.

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We have used our experiences to attract news stories from every major news channel, newspaper, and radio station in the Miami Valley area. We have reached over 1,000,000 people in 17 counties, and 11% of Ohio's population just through our local news sources. We have been covered by the television stations WHIO (CBS), WDTN (NBC), WKEF (ABC), and BBC in 5 different news stories, 3 live interviews with students, and one collaboration with FRC team 3138, Innovators Robotics. We have been featured over a dozen times in newspapers: The Dayton City Paper, The Oakwood Register, and Dayton Daily News. In addition to being featured on WHIO's radio station, we have appeared 3 times on the WYSO radio station with a total combined audience of over 2,000,000 people in 12 counties. Furthermore, we were featured on the Gem City Podcast with a regular audience of 2,000 people. Our influence has even gone international via HAM radio! At Dayton's annual Ham Radio Convention, the largest in the world, we broadcasted about the power of FIRST to an audience around the world via shortwave radio. Ever striving to reach a larger audience, we were featured on a BBC horizons episode about FIRST Robotics reaching 48 million viewers internationally. Our widespread media coverage has allowed us to connect with many people all around the world with over 2,300 Twitter, Instagram, and Facebook followers from across the globe.

In November of 2018, we reached out to Honoré Murenzi, a Rwandan refugee coordinator who aids the genocide relief in Rwanda. The Rwandan Genocide of 1994 devastated over a million people in the small, Eastern African nation. As a result, thousands of refugees have migrated to Dayton over the past few decades. Many of them only eat once a day and are surrounded by drugs and crime, with nowhere to go. All of the children that came to Dayton were placed into school based on their age, rather than their ability. For example, Niemma, one of the students we tutor, was placed in a sophomore math class, yet she did not know how to multiply at the time. Now, Niemma knows times tables up to 8 and is making significant progress to catch up to the rest of her class. Her confidence in herself and her ability has grown remarkably over the past few months. To contribute to the struggle the students face, their parents speak very little English and are often unable to help their children with their school work.

We set up an after school program for the Rwandan children, not only to help them with their school work, but to develop genuine relationships and help them feel more confident in their own skin and their new country. We immediately saw the infinite potential these children possessed! We dedicated ourselves to help them flourish by tutoring them, and at the same time, the children taught us Kinyarwanda. By learning their language, we earned their trust, something which is not always easy to give with their tumultuous life. We introduced them to FLL and built a robot to complete missions from Into Orbit. We worked to get full grant funding to start a brand new FLL team next season for the kids to be a part of. While assisting the children to succeed, we also helped teach the parents English and study for the citizenship test so that they can better support both themselves and their children.

A city of many faces, Dayton is a cultural melting pot containing people of various backgrounds and experiences. As a result, BONDS is a program diverse in age, gender, personality, socioeconomic levels, and more. Despite these differences, we have made huge strides to bridge these divisions and rebuild the city of Dayton over the past four years. We have connected drastically different communities that would never have had the opportunity to collaborate with each other. The fusion of these communities has given us the opportunity to diversify not only our ways of thinking but our ways of doing. Due to the effect that FIRST has had on our lives, 92% of our team is planning on going into a STEM field. We focus on community and creativity. Every young kid has imagined a life where they can live in a society where they can be anything they could possibly dream of and are wholeheartedly accepted by the people around them for all they choose to be. They envision themselves as being encouraged by their friends and family and supported by everyone. We are here to diminish the social boundaries and glass ceilings holding back the kids in our town. By embracing our team's differences, we show the world every day that FIRST can not only build robots, but build bridges to heal a divided community.