

Chairman's Award - Team 1718

[Print](#)[Close](#)

2019 - Team 1718

Team Number

1718

Team Name, Corporate/University Sponsors

FCA Foundation/Richmond Rotary/NuStep, Inc/The Schember Family/The Armada Fair/CTR Electronics&Macomb Academy of Arts & Science

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

Our students develop 21st-century skills that are required in a successful workplace: public speaking, self-motivation, critical thinking, collaboration & time management. Lifelong STEM skills are acquired from our Electrical, Mechanical, and CAD workshops and hands-on robot build. These assets allowed students to be offered 5 million in scholarships. Our team values academics, we have a 100% team graduation rate, a minimum GPA of 3.0, 99% attending college and 88% pursue a STEM course of study.

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

We energetically host FLL camps, participate in STEAM nights, demonstrate at local libraries, parades and fairs promoting all levels of FIRST. Annually, area professionals volunteer for Armada Automation, seeing the value in STEM youth development. The school rescheduled sporting events to accommodate the event. We volunteer at the Veteran's Olympics, MDA camps, Rotary/Lions food booths & field cleanup, Royal Family Foster Camp, road/trail cleanups, raising awareness of FIRST programs.

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

In 2017, we started, ran and hosted the first annual Michigan Advocacy Conference (MAC), the first student-run STEM advocacy conference in the nation. Through 2018, 57 attendees from teams 27, 226, 503, 1718, 2834, 4003, 4776 and 5460 spoke to their elected state officials about the importance of STEM program funding. We run week-long demonstrations at the Armada Fair, connecting students to FIRST teams in their community. One-quarter of our current 38 students joined due to this demonstration.

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

Our team hosted and ran 27 seminars over six years at the Michigan State Championship to educate students on CAD, Business, Strategy, Design, Awards and OPR. We hosted and ran our 5th annual leadership bootcamp equipping students from teams 1718, 5843, 6344, 2851 and 5460 with 21st-century skills, preparing for future endeavors. Students mentor FLL Jr., FLL, FTC, work as student ambassadors, referees, judge assistants and reviewers for our events, acting as role models for younger students.

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

Our team visits schools and invite them to our build space for presentations to administration, students and staff on the advantages of starting a FIRST team. We assist new and prospective teams with publications, insight on how teams are run finances, benefits to schools and students, and the encouragement of STEM in their community. We started 8 FRC teams and given them the resources needed for sustainability, allowing us to assist 4130, 2604, 3539, 4810, 6120, 7247, 5707, 201 and 4384.

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

1718 team members attend annual FLL formation meetings to ensure prospective coaches of our commitment to work as student mentors and run FLL camps for a successful season. In 2017, we ran a FLL Jr. practice Expo, where we met with parents at St. Peter's Richmond (K-8). This resulted in 42% of St. Peter's students joining 4 new teams. In the past 2 years, 2 FTC, 4 FLL Jr. and 5 FLL teams joined our community; we have started, assisted, and mentored 10. Our local school has all 4 levels of FIRST.

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

Our, entirely student funded Infinite Possibilities Grant is organized to financially sustain 2nd and 3rd-year FRC teams, it has grown to include FTC teams. Five grants, worth \$2500 over three years, with 4 more grants this year, have been awarded to teams. We provide FLL and FLL Jr. with the opportunity to compete in Armada Automation, a district qualifying tournament and expo. Each year, we assist 24 FLL and 4-6 FLL Jr. teams, pairing each team with a student ambassador to act as a role model.

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)

Our students mentor all three younger levels of FIRST, providing 8 FLL Jr., FLL and FTC teams with the knowledge and skills required in order to be successful. We mentored the FTC teams in our community by helping them get sponsorships and by providing student mentors. This year, 20% of our students mentored FLL Jr., FLL and FTC teams. Additional students assist FRC teams at their build spaces, or ours working on Chairman's, programming, drive practice, business plan and mechanical issues.

Describe your Corporate/University Sponsors

We are thankful for our long-term sponsors: FCA Foundation, Nu-Step, and industry sponsors: National Defense Industry Assoc., ABB, Armada Rubber, Ajax Paving, Cross The Road Electronics, DCS Waterjet Cutting; Military & Service Organizations: Department of Defense, Macomb Academy of Arts and Sciences, Armada Area Schools, Macomb County Planning & Economic Development, Macomb Income Tax, Michigan Department of Education, Special Forces Association, Armada and Berville Lions, and Richmond Rotary.

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 view our sponsors as partners. We demonstrated to R&E Automated, Berville Lions, Richmond Rotary and others, sharing how their sponsorship impacts students. We volunteer 100+ hours in our sponsors' food booths at the Armada Fair. Several mentors come from our sponsors who support their contribution. We publish newsletters to keep our sponsors updated on our progress and invite them to open houses. We recognize our partners by displaying their logos on our team shirts, banners & website.

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

FIRST is a robotics youth development program for all ages, where students learn real-world skills of engineering, computer science, trade skills, leadership, public speaking, technological literacy, time management, self-confidence, and creativity through friendly competition. FIRST teams share their passion for the program and STEM education with their communities and are offered scholarships, job opportunities, and internships that they otherwise would not have known.

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

The impact of our team extends past high school for our alumni, who become leaders in their fields. Our alumni have gained electrical apprenticeships, created businesses in manufacturing/design, pursued skilled trades and earned management positions, crediting FIRST for their success. Our alumni volunteer at competitions and mentor teams. We work with advocacy at the national level, presenting at FIRST Championship seminars, educating teams on how to start an advocacy conference in their states.

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

Lauren Clemons

Essay

Team 1718, The Fighting Pi, from Armada, Michigan, focuses on continually improving our community and students, resulting in a greater understanding of the impact of STEM on students. FIRST affords youth the opportunity to envision and embrace the limitless potential beyond our rural farm community and ensure future success in our chosen fields. The Fighting Pi leads our community in promoting creativity and establishing a network of future leaders to inspire advancements in STEM. Our team sustains a broad influence to progress social development and citizenship in our state, nation and the world. We were established in the fall of 2005, starting with 15 members and two mentors, grown to 38 members and 18 mentors. Our student leadership positions encompass two supervisors and eight captains, half being female, with the team being 34 percent female, encouraging young women to discover opportunities in STEM and FIRST. The Fighting Pi, in partnership with FIRST, continues to advance STEM in our greater community, state, nation and world. For the second year, we hosted and ran our annual Michigan Advocacy Conference (MAC). Fifty-seven attendees from teams 27, 226, 503, 1718, 2834, 4003, 4776 and 5460 gathered in Lansing, Michigan, to advocate the importance of state funding for afterschool STEM activities. This conference gave teams the self-confidence and impromptu presentation skills required to effectively speak to elected officials. During their interactions with elected officials, they explain the importance of continuing STEM funding for programs like FIRST robotics. To continue our advocacy efforts, our students have traveled to Washington, DC for the past 3 years to participate in the National Advocacy Conference (NAC). Students learn self-confidence and presentation skills as they do at MAC. Our students speak to national officials: Education Secretary Betsy DeVos, Senators Debbie Stabenow and Gary Peters to explain the importance of sustaining funding for after-school STEM programs, with emphasis on the ESSA Title IV part A and Perkins act. We present to school districts, demonstrating the skills and advantages FIRST students possess. In 2016, we introduced FIRST to teachers at Meritt Academy, starting FRC team 6120, The Cyberstangs. We returned to present to the entire school, 6120 is a thriving fourth-year team due to this. Our team met with and demonstrated to parents at St. Peter's School in Richmond, to create interest in FIRST. In 2017, they became team 13450 with 42% of their students involved in FIRST and later formed 3 additional teams. This year, we made robotics known to the principal of Warren Woods Tower in Warren, MI, explaining the advantages of FIRST for their students. We present at multiple parades and festivals in our community, including the Armada Fair, Richmond Good 'Ole Days, Romeo Peach Festival, Starbase, Armada Library, Selfridge ANGB and Detroit Maker Faire, displaying potential STEM careers to a rural farm area. Our week-long demonstrations at the Armada Fair have introduced students to FIRST programs and brought one-quarter of our current students to our team. Every year, we provide a day of activities at the Muscular Dystrophy Association camp, where students run a demonstration for campers, and help them drive our robot, opening to them a world of possibilities in FIRST and STEM. We volunteer at the Veteran Olympics, the Hands-on Museum, Royal Family Foster Camp and participate in STEAM night, where we introduce kids to after-school STEM programs and the bright futures they can provide. In 2017, we ran an FLL Jr. practice expo, where early elementary school students presented to a group of Fighting Pi reviewers. Our students shared with parents and school staff the impact FIRST has had on them. As a result, two FLL Jr. teams, one FLL team and one FTC were formed at the school, ready to compete successfully in the 2018 season. Ensuring sustainability for teams is paramount in our team's success in growing and maintaining teams at all levels of FIRST. The excitement generated when the teams we assist and mentor excel in FIRST, strengthens our determination and inspires us to expand culture's understanding and respect for STEM activities and careers. Realizing the financial struggle of second and third-year teams, we started The Fighting Pi Infinite Possibilities Sustainability Grant in 2015. This grant provides money for second and third-year FRC and FTC teams. The money for this grant is raised entirely by students, through returnable bottle drives and the Weingartz hot-dog fundraiser. This year, we opted to extend the grant to FTC teams, granting monetary stability to multiple levels of FIRST robotics, growing FTC in our area. Over the past three years, \$2500 in grants have been awarded, with four more grants on their way this year. We view our sponsors as partners. For all the donations that they provide us, we give back to them as well. We volunteer 100+ hours of service at Lions and Rotary food booths, clean up fairgrounds for lions club, provide them with a weekly newsletter and invite them to our annual awards and thank you banquet. Students are invited to become interns and eventual employees with the partners. This year, we received a grant from the Special Forces Association for build materials. Team members visit homebound veterans, thanking them for their service and brightening their day. In order to raise the funds required to be a successful FRC team, we are creative and constantly working. We ran fundraisers at Creek Center, Village Cafe, Wendy's, MOD Pizza, Noodles & Company and Graduation Flower Sale. We visit the businesses in our community, developing relationships with them and creating a sustainable environment for our team to grow. Our team creates a foundation for student success in FIRST and opens doors to life beyond high school. We encourage youth development through participation at our District Qualifying Tournament, Armada Automation, creating new opportunities in discovery and innovation yearly for 24 FLL and 5 FLL Jr. teams. This event is hosted and ran by The Fighting Pi, with mentors and members volunteering. Our members assist these teams by working as student ambassadors, judge assistants, referees and tabulators. These roles offering experience in collaboration, communication and leadership to students. This year we hosted and ran our fifth annual Leadership Bootcamp. Students from FRC teams 1718, 5843, 6344, 2851 and 5460 are taught problem-solving, self-confidence, public speaking, and leadership. These student-led segments help our attendees grow to be strong leaders and succeed in future careers. To prepare students for the upcoming season, 15 of our 38 students lead workshops for CAD, electrical, mechanical and strategy. These workshops inform and give new students experience in STEM to increase productivity and efficiency during build season. This summer students utilized the 2014 Mackinac Bridge Robot as a teaching tool, by redesigning and rebuilding the chassis, drive train and added a driver's seat. The robot is now always ready to take to demonstrations and parades. In 2017 we started an FTC club to grow the interest of FIRST in our younger students and this past year, it has grown and become an FTC team mentored by our students. In total, our team has started 8 FRC teams, 2 FTC, 4 FLL & 2 FLL Jr, creating a sustainable base for FIRST in our community. To grow FLL teams in our community we hold an FLL informational meeting at the elementary school to introduce the FIRST program to the students and their parents. This presentation is a way to communicate with the parents about what the FIRST program is and how it can benefit their

kids. We host and run student-lead FLL Camps in the summer. During the camps the youth gain exposure to the FIRST program. This camp is a way for us to teach the kids about team building and cooperation through discovery and innovation in STEM. Our students mentored FLL teams at the Global Innovation Faire in Washington,DC, enabling teams to gain business partners to aid the development of their innovative solutions. We mentor teams in all levels of FIRST including FRC team 6120, FTC teams 14706 and 13450, FLL teams 24890, 28429, 29082, 29052, 33189, 38429,18111, 17018 and FLL Jr. team 16912, teaching them skills in 3D design, programming, robot design, robot building, teamwork and creativity. This prepares students to persist through their educational endeavors and careers as organized, productive critical-thinkers. Since 2013, we have run and hosted 27 seminars at the State Championship. Our student leaders present the business plan and CAD segment and are the only student-led seminars. We educate these teams on CAD, Business, Strategy, Design, Awards and OPR. In our 2018 state seminars, we reached 199 attendees from 73 teams. We were invited to speak at the Advocacy seminar at the World Championship, informing other teams on starting and running their own state advocacy conference. Our impact continues past high school, ensuring success for our alumni, with a 100% graduation rate and 88% of our students entering STEM-related fields. 99% percent of our students attend higher education, two students started a business in manufacturing or entered the skilled trades. Our alumni gain leadership positions in their fields and credit FIRST for their successes. Our graduates have been offered over \$2 million in scholarships and have accepted over \$1 million. Alumni continue their work in FIRST by mentoring teams throughout college and beyond. Team 1718 is a driving force of STEM by educating our community on their possibilities with FIRST, developing 21st-century skills for our students and their future careers, providing all 4 levels of FIRST to our schools and focusing on sustaining itself and other teams across the state. The Fighting Pi continues to create infinite possibilities for students in FIRST.