

Chairman's Award - Team 3309

Print

Close

2018 - Team 3309

Team Number

3309

Team Name, Corporate/University Sponsors

The Boeing Company/Hamrock/Apple/McLaren/Google/Ganahl Lumber/Serra Laser/Raytheon/The Stump Family/First American Title/VXB Bearings/Will-Mann/SoCal Devs/Reliable Sheet Metal&Servite High School&Cornelia Connelly School&Rosary High School

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2017/2018 year and the preceding two to five years

3309 has shaped the way I view work. I find myself already knowing how to stay organized and collaborate effectively."- Matthew Krager '17 -95% of alumni pursue STEM careers --2015 - 2018 Graduating Seniors: \$4.414M in Merit Aid -- Interns & employees at Google, SpaceX, Facebook, Twitter, Wolfram Research, Apple, Tesla, & Boeing --3309 Alumni mentor 10 FRC Teams -1 WFFA Mentor -3 Dean's List Finalists -1 FIRST Scholarship Recipient at Harvey Mudd -4 SoCal Regional Robotics Forum Scholarships

Describe the impact of the *FIRST* program on your community with special emphasis on the 2017/2018 year and the preceding two to five years

Beach Blitz -2017: 52 teams applied (# of teams doubled from 2016) -10 new workshops via livestream and YouTube (14.5k views) Outreach Demos (incl. Middle school) -50 demos & 253K ppl/5 yrs Family Resource Centers -STEM programs for low-income students Summer Camp -115 students/4 yrs Open House -325 Families toured facilities/2 yrs OC Regional Planning Committee -3309 parents have 20 yrs of service as Committee Chair, VC's, Game announcers, referees, Student Ambassador Coordinator, and members.

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

-Google Dress Code --3309 3D printed glasses as an unconventional use of Comp-Sci --400 low-income minority high-school students -Google's CompSci Edu & Media Cross-Industry Meeting --Promoted diversity & inclusion in STEAM education Videos/photos to spread FIRST -Business Rockstars Interview --Aired on TV/Radio in 40M homes --1M Listeners South Africa -Introduced teachers to user-friendly STEM curriculum -Presented Friarbots facilities as an ex. of the power of FIRST

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

"Team 3309 exhibits true professionalism and members present themselves as professional models for others to emulate" - Eileen Kahn, former FIRST Senior Mentor, STEM Education Consultant Kick-off -Hosted 37 teams at 3309 facilities for a pancake breakfast -Provided a wooden field and preparation for the season Mock Kick-off -Included mentored teams 6554 and 7157 -Provided skills for the new season OCRA -Orchestrates Beach Blitz -Builds a network of OC FRC teams to serve the STEM community

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

From 3309, we gained insight mechanically from their mentoring, & we enjoyed spending time around truly great people. They have an admirable work ethic & sense of teamwork. We wish to return the kindness from their outreach our rookie year & further our relationship! - Vivien, 7157 FRC 5419 -3309 secured Google to provide \$5K reg. fee for 2017 Rookie Season FRC 7157 -Mentored 2018, worked w/OC Regional Director to secure slot at OCR -Advised on acquiring sponsors, team org, strategy & design

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

FLL Information Night -Invited principals, school representatives, and community parents to 3309 Facility for a presentation on how to Six Steps to FLL Success -Pamphlet guiding outsiders on how to start an FLL team handed out at all 3309 demos

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

FLL Team MR Roboto -Presentation given to team members at 3309 Facility -Robot-Project-Core Value assistance given at MR Roboto Facility --Team received Design Award & qualified for Regional CMP Referee Volunteering at FLL Competitions run by Teams 2493, 3476, 5199 Invites FTC Team 542 annually to Boeing Demo Days to gain more mentors 2018 Week Zero Scrimmage Event @ Servite w/ 3476 as co-host

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)

When I open 3309's emails, I am blown away with gratefulness. Thank you for sharing so much helpful information. - N. Nunns, Lead Mentor 6554 3 Friends Christian School FLL Teams -Provided coding & building lessons -Created Preview Night for award presentation prep -All qualified for LegoLand Champs Event FRC 6554 -Mentored 2017-2018, won Rookie All-Star 2017, Division Finalists FRC 7230 -Mentored 2018 -Helped w/ video & media to create sponsor presentation -Guided team on building & pneumatics

Describe your Corporate/University Sponsors

"Hamrock Inc. remains involved by supporting the Friarbots' enthusiasm to make FIRST loud."-- Mike Mason, Hamrock Employee/Mentor of 3309 Hamrock: 9 yrs/Fabrication & Mentorship Servite: 9 yrs/ Location & 50k/year Boeing: 8 yrs Regional Registration Fee & Annual Monetary Donations 4 demos at Boeing Facilities Raytheon: 9 Yrs/Monetary Will-Mann: 6 yrs/Fabrication Apple: 1 yr/ Regional Fee Google: 1 yr/ \$6k donation McLaren: 1yr/ \$4k Airgas: 1yr/Monetary, Mentoring, Supply Donation

Describe the strength of your partnership with your sponsors with special emphasis on the 2017/2018 year and the preceding two to five years

Boeing -\$67,500/5yrs -Internships -2 Mentors totaling 70k/5yrs Hamrock -Use of laser-cutter & powder coating services for parts, 9yrs Servite HS -Added 3309 donation on Servite website -Expanded facility to 3 buildings McLaren - Opportunity to be on their social media and official McLaren Magazine -Presentations to team on carbon fiber engineering & other materials Chapman University -Hosted Vice President at Kickoff -Invited to Fall 2018 grand opening of the Keck Science & Engineering School

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

FIRST isn't a contest of who wins or loses; it's a community devoted to learning lessons, developing ideas, & cultivating the next generation of STEM leaders. FIRST focuses on aspects of STEM beyond the robot, including business management & leadership to create well-rounded students who thrive once they enter the working world. - Team 3309 Since 2009, 3309's view of FIRST has grown beyond competition. It has evolved to emphasize helping, growing, and serving the STEM programs around them.

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

Team 3309 is based out of Servite High School, but works with its sister schools Rosary Academy and Cornelia Connelly School to build its program. # of girls on Team 3309 increased by 33% in 2018 28% increase sister-school Rosary students interest in joining 3309 38% increase in interest for incoming students who shadowed a robotics member 45% increase in prospective family interest who attended 2017 Rosary Open House 50% of freshman from Rosary's VEX team also do FRC

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

Jonathan Logrippo

Essay

At the core of FRC Team 3309 lies a passion to galvanize their school, Southern California, and countries abroad to become epicenters of innovation that inspire service, support and sustainability for a thriving STEM community. Wherever the team walks, its footprints create a path for the next generation of leaders in engineering and technology. Team 3309's nucleus of sponsors, students, and parents is transforming Orange County (OC) into a region that serves, supports, and sustains the growth of SoCal robotics programs. Their alumni base is rapidly growing to include college students at top engineering schools such as USC, UCLA, UC Berkeley and Harvey Mudd; employees at leading technology firms including SpaceX, Apple, Google, and Twitter; and most importantly, mentors for teams in their communities. Past Friarbots President Megan '16 integrates FIRST into the lives of college students at UC Berkeley with an FRC Mentor training course based on her mentorship experience with 971. Brothers David '12 and James '13, founding members of the Friarbots, remotely mentor Team 3309 year-round while serving FIRST in the Bay Area by volunteering at the San Francisco Regional and mentoring FRC Teams 5499 and 5419. The team alumni reflect the Friarbots commitment of service that influences the growth of California as a sustainable community for developing future engineers.

Starting in 2015, Team 3309 alumni and mentors implemented a Mock Kickoff comprised of reviewing a past FRC game, running through key points of strategy, and identifying essential game tasks. This year, 3309 got a head start on bolstering FIRST in OC by opening up their Mock Kickoff event to two protégé FRC teams: 6554 and 7157. To readily equip these teams, Friarbots' mentors and student leaders counseled and advised them on how to promote a successful season from Day One.

One week after Mock Kickoff, 37 FRC teams from all over SoCal traveled to Team 3309's host school, Servite High School, to view FIRST's latest game challenge. After the team cooked a pancake breakfast for over 500 young engineers and their mentors, everyone filed into the theater to watch the FRC Kickoff broadcast. Through 3309's efforts, the 2018 OC kickoff became a hometown event where rookie teams interacted with veteran FRC teams to discuss the upcoming Build Season. Team 3309's facility buzzed with conversations ranging from addressing potential game strategies to collaborating with prototypes for the 2018 season.

In addition to extending their resources to enhance other FRC programs, Team 3309 utilizes their facility to run an annual STEM Summer Camp for over 40 grade school students. During camp, team members work in small groups that rotate between stations teaching soldering, 3D modeling, programming, and hydrogen power. While Friarbots tutor campers, they sharpen their leadership skills by learning ways to train students. This experience builds communication skills, and creates a unique chance to familiarize campers with STEM fields and ignite an interest to pursue higher levels of FIRST. While the Friarbots devoted four weeks to their annual summer camp, they also worked with FRC Teams 3476 and 4276 to turn Beach Blitz into an annual off-season competition that supports SoCal's growing FIRST community. The inaugural Beach Blitz event began in October 2016 with just over 20 FRC teams in attendance. Teams 3476, 4276, and 3309 worked diligently during the four months leading up to Beach Blitz 2017. As a result, 50 teams applied for Beach Blitz 2017, doubling the event's applicants from the previous year. The second year also added 10 new workshops along with an interactive live stream, allowing viewers to engage in the workshops from home. The workshops focused on teaching teams about fundraising, engineering design, and program management. The success of Beach Blitz in 2017 changed it from a simple service project to the premiere SoCal FIRST Robotics off-season event.

As the STEM community grows, the Friarbots increase their efforts to maintain and spread the core values of innovation and creativity. Members were thrilled when a Navy Admiral invited them to bring their 2017 robot to LA Fleet Week. The invitation provided the team a booth from which to promote STEM, and the Friarbots extended this invitation to 4 additional FRC teams. Together, with teams 330, 2637, 4415, and 6554, Team 3309 held scrimmage matches on a practice field in the shadow of the USS Iowa. This opportunity demonstrated the benefits of FIRST Robotics to over 200,000 attendees at Fleet Week.

To further expand access to engineering education programs in SoCal, the Friarbots have worked closely with Eileen Kahn, education consultant and former FIRST Senior Mentor, to bring robotics to over 400 low-income high-school students from the LA Area through Google's Dress Code series. These students get a chance to see a 3309 robot hurl wiffle balls into the air, and they also saw practical, real-life applications of FIRST's ideals when the Friarbots displayed their prototyped 3D Printed Glasses: a blend of affordable engineering practices and business spirit. Events like the Dress Code series support a flourishing curriculum of hands-on engineering education within the greater community bolstered by the FIRST influence the Friarbots provide.

Mentoring youth is a top priority for the Friarbots. This offseason, the team stepped forward to help FLL teams from Friends Christian School (FCS), sending out nine Friarbots members to help their 3 rookie teams improve performance. Team 3309 provided programming lessons, design advice, and project development tips. The Friarbots continued their support with an FLL preview night to provide a competition-like experience through mock presentations and robot judging for all of FCS's teams. After two months of building, all of the mentored teams qualified for the SoCal Championship at Legoland.

Friarbots students, mentors, and parents support teams like 6554 and 7157 even during the busy FRC season. Through the Friarbots' Mock Kickoff, these teams were able to expand their mentorship network. Friarbots students send consistent emails to check on the progress of these teams, mentors contact both teams weekly, and a Friarbots parent now sits on the board of directors for 6554. When supporting FIRST teams, the Friarbots' main goal is to help them achieve independence and long term sustainability.

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This summer, team outreach crossed international borders when long-time FRC partner Team 2485 requested Team 3309 host South African teachers at their facility. Students welcomed the visitors and shared about their involvement in FRC and the integration of STEM at Servite. Team 3309 worked hard to provide the South African teachers with a thorough understanding of Servite's seamless blend between a structured classroom experience and FRC's interactive engineering curriculum implemented by the Friarbots. Team 3309 students are planning to travel to South Africa in 2018 where they will also assist with instilling robotics into the Johannesburg, South Africa school system.

Last year, Team 3309 challenged itself to become better integrated with local government institutions to bring hands-on engineering to the forefront of the community. Team 3309 is currently working with the OC Family Resource Centers to provide 15 locations with a cost-free intro to engineering. The Friarbots plan to assign a unique local FRC team to each center and are negotiating grants to provide centers with a 3D printer, filament, a laptop, and CAD software. Team 3309 will introduce a robotics curriculum based on their annual summer camp to teach low-income grade school students to make a take-home water bottle robot project. By establishing a sustainable program, the Friarbots ensure that STEM education thrives in OC.

Team 3309 is similarly focused on expanding international relationships. The Friarbots have forged meaningful partnerships with sponsors and are excited to introduce and integrate their new sponsor, McLaren Automotive, a UK-based automotive company, into the FIRST Community. After McLaren's Western Division Marketing Director met the Friarbots at Beach Blitz, the company actively pursued the idea of sponsoring FRC Team 3309, but team members see an impact that reaches more than just themselves. As their relationship with McLaren grows, Team 3309 intends to demonstrate the value of a FIRST sponsorship in order to secure subsequent involvement at both the regional and national levels.

Team 3309 has also made great strides in helping Boeing - FIRST's largest supporter - to become more involved in sustaining robotics education throughout the region. In January of 2018, Friarbots Lead Mentor and WFFA recipient Evan Smith partnered with Boeing's Global Citizenship directors to assemble a committee dedicated to expanding FIRST outreach. The Friarbots believe that they can become a conduit through which their sponsors can sustain STEM in the region.

As Team 3309 looks outward to serve their region, the team also works to ensure that robotics and engineering will continue to flourish at Servite. While Servite's renowned athletics teams are a source of pride and recruitment, Team 3309 has created a culture where 28% of prospective students indicate Robotics as a primary interest for attending the school. Team members also expanded Servite's engineering program to include three after-school robotics programs, an Intro to Engineering Design course, and four faculty members. The Friarbots have instilled a STEM-forward culture change that has new students constantly looking to join FIRST Robotics.

During the 2018 FRC Season, the Friarbots inch ever closer to their tenth anniversary, every year ahead is an opportunity to look forward and develop new initiatives, new plans, and new projects that work together to create a better ecosystem for engineering in Orange County, California, South Africa, and beyond.