

“Coming together is a beginning. Keeping together is progress. Working together is success” – Henry Ford

To revolutionize the culture of Del Rio, a border town where typical career paths are government jobs or manufacturing, into one where science and technology are celebrated and viable career options for the City’s youth could be considered a daunting task. From the outset, Team 4063 has been dedicated to transforming our culture, one small action at a time. Whether by working around Del Rio school district restrictions to introduce elementary age students to STEM, volunteering at numerous local charity events throughout the year, or creating a reputation as Gracious Professionals and passionate volunteers at regional robotics events, Team 4063 believes changing our world begins at home by changing our community.

### **Our Galaxy**

The City of Del Rio is located on the United States - Mexico border, 150 miles from any other major city in Texas. To put this into perspective, it would take us less time to travel across the entire state of Connecticut than it would take us to get to another major city in Texas. For many of us, travelling to regional competitions is the first time we have ever left Texas. Industry in Del Rio consists mainly of government jobs (i.e., Homeland Security, Laughlin Air Force Base, and Customs) and manufacturing facilities. Prior to Team 4063, STEM was not a widely known concept in Del Rio other than high school Project Lead the Way classes. Team 4063 has worked the last nine seasons to introduce STEM to all members of the community with the goal of making it a viable career path for the youth of the community.

### **The Big Bang**

What started as a team of seventeen members and two founding coaches has expanded in nine seasons to a team of 42 members and four coaches. This expansion is a direct result of our founding of E-CADET and RoboCamp.

Through our partnership with The Bank & Trust, we undergo regular team building activities that teach invaluable lessons on cooperation and communication. We are mentored by electrical technicians, master machinists, and master woodworkers who teach team members valuable skills through hands on work in designing and building the robot. Business executives and managers work with our media team to hone their approach to technical writing, branding, and public speaking.

### **Boosting Elementary Students towards FIRST**

Due to school district restrictions, students in grades kindergarten through fifth grade are not allowed to travel outside city limits for competitions. Therefore, the FLL Jr. or FLL programs are not an option for our elementary age students. In 2013, Team 4063 co-founded the elementary robotics program E-CADET to promote STEM awareness and education for these students. As of 2017, the E-CADET program is wholly owned and operated by Team 4063. Our team designs and develops an original game, builds the game board and elements and write the rule book. In addition, Team 4063 hosts open forum days for E-CADET teams. This past season 36 teams comprised of third through fifth grade students from eight public and one private school competed in two fall competitions. Team 4063 runs the entire event, including serving as judges, coaches, mentors, referees, and scorekeepers. The Del Rio High School Class of 2020 and our team will graduate students who were among the first E-CADET participants.

To provide learning opportunities during the E-CADET off season, Team 4063 founded RoboCamp for third through eighth grade children. The weeklong summer camp challenges teams of campers to design and build a robot that will compete in a Team 4063 developed game on the last day of camp. Campers

are introduced to 3D design using Autodesk Inventor. Besides introducing STEM concepts to elementary age students, we also begin teaching them the importance of teamwork and Gracious Professionalism by starting each day with a different team building activity. Since the outset, we have hosted 250 campers in RoboCamp.

### **Reaching Out to our Community and Beyond**

Beyond introducing STEM to the children in our community through our robotics programs, we work to acquaint the rest of the community to FIRST and STEM through our volunteer efforts. We give over 2,000 hours to the community each year, volunteering at events such as Feast of Sharing, Niño's Navideños, Big Raffle Dinner, Wild Game Dinner, Rotary's Independence Day Rodeo (including our team-built T-shirt cannon), and the annual Lake Amistad cleanup. Besides assisting with each of these events, we are happy to answer any questions attendees may have about our team and the mission of FIRST.

Our team prides ourselves on our helpful reputation throughout the FIRST community. We are easy to spot assisting other teams at competitions with our unique, bright pink, bunny-eared helmets. Our unusual headgear has become synonymous with the term "helpful". Beginning with our rookie season, we have won ten Gracious Professionalism awards over the last seven seasons.

For the second consecutive season we mailed game manuals to rookie teams competing at the same district/regional events. In addition, we used special tabs to mark important pages that are sometimes overlooked by rookie teams. We provided our contact information and encouraged them to contact us for assistance.

Our team members volunteer en masse at every competition we attend – acting as field-reset crew, ambassadors, safety goggle station monitors, and assembly and disassembly of the field, resulting in us winning the Volunteer of the Year Award in 2017 at Alamo Regional.

Hearing about our team's success, a group of students from the neighboring town of Uvalde convinced their STEM teacher to visit the FRC event we co-hosted in 2019. That visit morphed into FRC Team 8369, to which we have provided resources, guidance and an invitation to utilize our practice field.

In early January, we received a text from a former team member whose family moved to San Antonio during the summer of 2019. FIRST and our team made such an impact on him, he convinced his father to begin a team with the sophomore class from his new school. FRC Team 8405 was born. Existing and former coaches were contacted to support the team with a successful lift-off. We have provided general season advice as well as safety guidance and in-person coaching in an effort to help steer the ship.

### **Providing Liftoff in Spreading the Message of FIRST**

Without our loyal sponsors, we would be unable to spread the message of FIRST through the community. The Bank & Trust is our largest and longest community sponsor, having contributed over \$70,000 since our team's inception. In addition to financial support, the Bank & Trust has provided countless volunteer hours to our team. The Bank & Trust has gone on to hire some of Team 4063's members for summer internships, providing valuable work experience at a company whose core philosophy is Excellent and Exceptional Service, which reinforces Gracious Professionalism.

In the fall of 2015 Bendix, a commercial vehicle safety system supplier, awarded Team 4063 a grant totaling \$8,000 that enabled us to fund all levels of robotics in Del Rio including E-CADET, FLL, FTC, and our FRC team.

Due to the distance required to travel to regional events, as well as San Felipe Del Rio CISD's Title 1 status, our team would be unable to attend three regionals every year without the assistance of the San Felipe Del Rio CISD and the Career and Technical Education (CTE) Department. These two organizations pay for travel, meals, robot parts, and registration expenses for our team.

Team 4063 established a booster club in 2012 to help raise funds for team uniforms, registration fees, and parts. The booster club continues to thrive due to the commitment of parents and community volunteers. In 2014, the club received a 501 (c)(3) designation, offering more opportunities for the longevity of the program to provide for the team's future. Multiple sponsors throughout our history have supported the team through donations to the booster club.

### **Acceleration of STEM Awareness**

In 2010, zero schools within the district hosted robotics programs. Since our 2012 rookie year, we have invited local politicians, school board members, and community leaders to our facility during build season in an effort to develop them into champions of STEM and the impact robotics has on the youth of our community. Nine years later, we have robotics programs in 90% of the district schools, with a goal of 100% by 2020.

In 2017, our school district built a state of the art CTE facility at a cost of \$10 million to house the growing engineering and technical programs. Our team has created such an impact in our school district that the design incorporated a full size FRC practice field.

### **Planetary Alignment**

Our team has created such a positive impression that we were asked by FIRST in Texas to host a district event in 2019. The event was considered one of the largest and most successful in Texas. In March of this year Team 4063 will once again welcome over 30 FRC teams for another FIRST District Event.

### **Working towards an Alternate Universe**

Team 4063's goal is to change the world through what we have learned by participating in FIRST – and changing our world starts with changing our community. From our original elementary school robotics programs to volunteering in both the Del Rio and FIRST communities, from our work to assisting two rookie FRC teams to lobbying for robotics practice fields in a new CTE facility, both our team mentors and members have worked tirelessly over the last nine seasons to both broaden STEM and FIRST robotics awareness in the City of Del Rio. Nine years later, our team has expanded, not only in membership, but in the goals we use as a yardstick to measure our success both on and off the field. What started as two teachers wanting to change the lives of their students has grown to students wanting to change not only their community, but their world.