

***FIRST* Impact Award - Team 6017**

2024 - Team 6017
Team Number
6017
Team Nickname
PrepaTec - Cyberius
Team Location
Santa Catarina, NLE - Mexico
Describe the impact of the <i>FIRST</i> program on team participants within the last 3 years. This can include but is not limited to percentages of those graduating high school, attending college, in STEM careers, and in <i>FIRST</i> programs as mentors/sponsors.
Through FIRST, our team has built a community like no other. In the last 3 years, 100% of our members have graduated high school, all of whom are attending college, with a 94% rate pursuing STEM majors and 100% of our current members planning to pursue one. Taking into account our alumni, 20% have developed a governmental role working in our state's data science department, 40% volunteer in FIRST programs, and 20% plan on becoming teachers.
Describe your community along with how your team addresses its unique opportunities and circumstances.
Our city, Santa Catarina, faces limited educational opportunities: only 40.6% attend primary school, of which 40% go to middle school. Aware of our privilege, we: -Engage in governmental events, as the 2022-23 Youth Innovation Fest to advocate the implementation of robotics courses -Participate in monthly events, as BPrepaTec, that promote STEM opportunities, reaching 1800+ students in our community -Provide 30+ primary school students with tools to solve real-life problems with STEM skills.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
Aware of the power of speech, to amplify the FIRST message we: -Teach a weekly robotics course at 2 primary schools to 30+ students via educational plans using Standard Educational Kits -Speak to national/international news stations, as NBC Chicago, Univision and CONECTA, about our journey as a Mexican team -Share our resources (FRC field, workshop, etc.) with fellow teams. The record we keep of people and teams we connect with during our outreach events reflects our expanding influence.
Please provide specific examples of how your team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years.
6017's members work to become embodiments of FIRST values through: -Initiating Swerve 101 in 2023, a 5-week mentoring session imparted to 19+ teams and 100+ alumni, with the addition of personalized zoom sessions -Scouting mentorship to #7102, #9282, and # 5887 for the 2023 Tidal Tumble Offseason,

and future aid to #7102 for the 2024 Regionals -Volunteering to build the FRC field in Regionals and Offseasons -Giving personalized aid to #9213 for the 2023-2024 Regionals in different areas.

Describe your team's initiatives to Assist, Mentor, and/or Start other *FIRST* teams with emphasis on activities within the past 3 years.

We have assisted inactive team 3480 and aspiring FTC team RockinRobots (#24815) by joining forces in FRC via our Power Alliance until they can compete independently; leading them to participate in the 2024 season. Currently we: -Mentor 19+ Mexican teams on swerve mechanisms online, with personalized aid to 5 teams -Lend our FRC field for practice/official events -Assist 7 teams in CNC machining capacity - Store/transport teams' robots before the local regional -Ship the kit of parts to 4+ teams.

Beyond starting teams, what initiatives have you done to help inspire young people to be science and technology leaders and innovators? What results have you seen from your efforts in the past 3 years?

Coming back each year to teach robotics courses in public elementary schools, alongside Cyberius' STEAM summer camp, has allowed children to get involved in STEAM with immersive activities; regardless of their age, gender, or socio-economic position. Additionally, via inviting younger students as honorary members during Offseasons, we've inspired them to continue honing their abilities, creating dreams of competing in FRC. In all the previous, we have witnessed the attendance grow exponentially.

Describe the partnerships you've created with other organizations (teams, sponsors, educational institutions, philanthropic entities, etc.) and what you have accomplished together with emphasis on the past 3 years

Alongside FIRST and PrepaTec, we've: -Been key partners to run and host regional events as FLL and MEXICO ALL-STAR OFFSEASON -Led a STEAM scholarship program for middle schoolers to study in a private high school -Partnered with 6647 to teach 19 Mexican teams the basics of swerve mechanism - Partnered with MAGA Automation and Crafting Buddies to run the first Ri3D in Mexico -Partnered with fitness leaders and sponsors to run events to promote physical and mental wellness within our community.

Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, *FIRST*, and your communities.

Promoting equality involves ensuring an equal field in the team and within our community, respecting background and identity. Alongside PrepaTec, we help offer STEAM scholarships to middle school students whose ambitions surpass their limitations, allowing us to have foreign members and continue our 60% female-member ratio. Additionally, 2 of our team captains have been women in the last 3 years and new team members are encouraged to take FIRST's ED&I course to ensure respect between members.

Explain how you ensure your team and the initiatives you have created will continue to run effectively for the foreseeable future

To ensure 6017's sustainability, we: -Hold mentoring sessions for different fields each semester -Assign people to manage our outreach programs during the school year and give continuity to our Power Alliance and other incentives -Create a manual for outreach robotics courses -Keep a record of our daily activities to use as future reference through a Cyberius Manual -Design year-round strategic plans to maintain a steady, cohesive and efficient workflow, especially within our finance area.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

Our finance team keeps a list of benefits to grant sponsors, which expand depending on the extent of their support, to ensure a mutualistic relationship. To engage with our sponsors, we: Invite them to team events and our workshop -Seek their support for design suggestions from their professional perspectives -Run personalized events to promote each of their brands. As for recruitment we: Participate in events attended by STEM companies -Reach out to local companies through social media.

Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.

An area we could improve is our work structure. In the past, our lack of planning led to an imbalance in workload and miscommunication. Yet, the past school year, we've: -Used an online management tool, Trello, to assign tasks -Distribute workload evenly, considering the time taken to complete tasks -Created a work schedule and calendar to induce efficiency between members -Adopted a "management by objectives" model -Made frequent team meetings to update each other on task advances.

Describe your team's goals to fulfill the mission of *FIRST* and the progress you have made towards those goals.

Daring to be exceptional by erasing boundaries that limit our community, we: -Lend and transport our field for FRC Regionals and Offseasons nationwide -Host/support official events like FLL MTY Regional and FRC MEXICO ALL-STAR Offseason -Provide access to our field in the preseason to 20+ teams -Continue a Power Alliance with 2 inactive teams over Mexico -Mentored 19+ teams broadening access of swerve mechanism -Reach 1800+ students and 30+ primary students with STEM skills for problem-solving.

Briefly describe other matters of interest to the *FIRST* Judges, including items that may not fit into the above topics. The judges are interested in learning about aspects of your team that may be unique or particularly noteworthy.

Understanding the power of voting, we placed National Electoral Institute modules within our school grounds for students and staff to register for or renew their voting licenses for the upcoming presidential elections. Our responsibilities continue as we work to lower our campus' environmental footprint through: -Implementing a regulation system for mass events on school grounds -Placing and taking charge of a compost center on campus -Adding paper recycling bins throughout the school.

Judge Feedback

Who/When

Feedback

Apr 05,
2024
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How much more does the continuity of a single activity weigh over initiating many others?

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

We are Cyberius and we build bridges across Mexico. As we navigate the barriers of STEAM education, our mission exceeds robotics. We envision a future where young minds aren't confined by preconceived notions but rather empowered to break through their self-imposed limitations. Join us as we embark on a quest to create opportunities and liberate our community's potential. EXPOSURE- It is impossible to take on an opportunity when it's nowhere in sight. Conscious that FIRST Mexico, with only 80 active FRC teams, is still a new topic for educational institutions, we venture towards showcasing the organization. In our high school, PrepaTec Santa Catarina, we hold a monthly immersive experience to show middle schoolers the feeling of being part of an FRC team. Additionally, we organize yearly orientation events like BPrepaTec and Día 1, garnering around 500 participants each, to amplify the team's exposure. Outside of our school, we've aided and organized the Youth Innovation Fest, an event held by the government of Guadalupe, N.L. Since 2022, we've been able to introduce the world of robotics to more than 1600 students and multiple leaders in the technological industry and education such as SYSEI Solutions, VEXMON, and CONALEP, to encourage the implementation of robotics courses in primary schools. Making the most out of mass media, we've interacted with multiple international television programs and news stations to share our experience within FIRST as a Mexican team. Since 2016, we've maintained contact with CONECTA, a Mexican news website, to publish articles every two months about our events and each season's accomplishments. Furthermore, in the 2023 Wisconsin Regional, we were able to share our experience with NBC Chicago, Univision Chicago, and the Milwaukee Journal Sentinel, all of whom introduced us to their viewers, reaching 261k+ people. EDUCATION- Education is key to turning limitations into opportunities; in our community Santa Catarina, 40.6% of residents attend primary school, with only 40% of them reaching middle school. This means less than half of our city has access to basic education and even fewer to STEAM courses. Since 6017's founding, members have prioritized giving weekly robotics courses at public primary schools. Teaching the use of STEAM for problem-solving, we've encouraged 30+ students each year to find unique solutions to their daily problems. Through LEGO WE-DO kits, and other Standard Robotics Educational kits, students build prototypes that are showcased in our yearly festival TODAY'S FORECAST: STEAM. Additionally, with the beginning of Cyberius Summer Camp in 2022, which garnered 40+ attendees, we've been able to strengthen their sense of belonging as they meet other students with the same dreams. Throughout our sessions, students learn how to magnify and combine their own strengths with others', transform into critical thinkers, and become empowered to see past their reality. Each year, we set up semester-long work plans, and to ensure fluent continuity, in 2024, we created a standardized manual for future generations to use as a reference. Needs can be found within our community as well. Last year, alongside our institution, PrepaTec, we aided in granting STEAM Scholarships for upcoming high school students whose abilities allow us to accomplish our team's mission. For the 2023-2024 school year, four of our members were given a 40% scholarship, allowing their presence in the team to be more than a learning experience: a vessel for their education's progress. Knowing the importance of education within FIRST, our mentors give us the tools we need in different STEAM areas. With each member completing up to 80 hrs of mentoring each semester, we've been able to offer mentoring to other teams. In 2023 we held a 5-week Swerve 101 course for 19+ teams and 100+ attendees. EQUALITY- In Mexico, 180 FRC teams have been registered, but only 80 are active, mainly due to the lack of resources. Realizing our privileged standing, we've dedicated our efforts to leveling the playing field of FIRST Mexico, creating a unique community filled with opportunities for all. Since 2017, Cyberius has volunteered in 40+ FIRST events, including the Championship, in a wide range of roles; mostly acting as key volunteers such as referees, GA, CSAs, webcast operators, radio operators, FTAs, FTAAs, to mention a few. This gave us the spotlight and opportunity to start hosting and running each season's FRC Kickoff for the past 6 years. Each year, we open as a center of distribution for the Kit of Parts; helping around 12+ teams each year, including some that are out-of-state. Regional Monterrey was born in 2018, and since then, as a local

team, 6017 has assisted 10+ teams with workforce, tool use, and robot transportation before, during, and after the event. In this way, we've granted each visiting team the same advantages as those playing at home. As FIRST Mexico expanded, the lack of resources invested became more visible. In 2019, in collaboration with our main partner: PrepaTec Santa Catarina, we managed to bring the first and only official FRC field to Mexico. Since then, we have assured to make our field accessible to any Mexican team who requires it, including its transportation, and through this, it has traveled up to 1800 miles to reach 4 regionals, 2 off-seasons, 15+ events, and spent countless days at our campus as a practice field. These 5 years we've impacted over 50,000 people and hope to reach more next year. Our compromise towards the Mexican FIRST community's growth led us to partner with FLL to host and run Regional Monterrey for the past 4 years, welcoming around 80 teams and 700+ families from 7+ states each season. As we lead by example, we train our members to take on specific roles and invite our community to volunteer, ensuring a sustainable event. Spotighting FRC, we brought our experience in hosting and running FIRST events to Off-seasons. Changing their exclusivity to teams who could afford to go to other countries, in September 2023, we introduced the first official Mexican Offseason: MEXICO ALL-STAR with aid from 4 other teams. A total of 35 teams from 15 states attended, as we experienced a new chapter, with a confirmed 2024 renewal, for Mexican teams' post-season opportunities. In 2019, we welcomed RockinRobots, an aspiring FTC team from Tuxtla Gutiérrez, Chiapas, to our family. The next year, to prevent its dissolution due to the pandemic, Abtomat 3480 from León, Guanajuato also joined us for the FRC season, creating the Power Alliance: Cyberius + RockinRobots + Abtomat. Together, we grew our knowledge through mentoring, learned to use technology to work long-distance and have each season's robot reflect a multi-state team. However, we always knew that true success would mean each of us reaching new heights on our own merits. Thanks to this initiative, #3480 had its comeback during the 2023 MEXICO ALL-STAR Offseason; registering in 2024 regionals too. This Centerstage season, RockinRobots was able to enter FTC with a bang as they reached finalists in the FTC CDMX Regional and won the Judges Award. INSPIRATION- It's hard to dream big when you can't see yourself being represented; we believe in inspiring others by becoming a visual representation of equal opportunities. 6017 has actively worked to draw attention to Latin American teams and has successfully placed our region on the map several times. At the 2023 Tidal Tumble Offseason, we had the initiative to relay a Spanish-spoken match to highlight the presence of the Latin community at the event; it was viewed by 150+ attendees and garnered 5.5k views on YouTube. Recently, we began Ri3D MX with our mentors to inspire teams with low budgets to find solutions to the challenge with the KitBot, hoping others will join us for next year's challenge. We have reached 43% of the Mexican FRC community with our live stream and become the first Mexicans to officially take on the project and be recognized as one of the Top CRESCENDO Ri3D Builds in FIRST Updates Now's media network. As of January 2024, their live stream featuring our robot has garnered 15k+ views on YouTube. Nonetheless, a disproportional representation isn't unique to nationalities, it's also found between genders. To combat this issue, in 2022 we decided to compete in VEX with a female team. Through this experience, we empowered our members to take on a new challenge, growing confidence in them to take on bolder roles in engineering-related tasks, adhering to the 2030 Agenda's SDG #5: Gender Equality. Realizing the team's impact, we opened two girl-powered teams that debuted at the 2023 WER Mexico Nationals. MORE THAN ROBOTS- To create opportunities in developing countries such as Mexico it's necessary to look after vulnerable groups. In 2023, we raised \$100k+ for AMANEC, an NPO that aids underprivileged kids with cancer, alongside our fellow Business class students. Additionally, we collaborated in #GorrosSolidarios with Caritas, as well as Crochet Co., donating 150+ handmade crochet beanies to hospitals. Also, during 2023's Breast Cancer Awareness Week, we collected \$8,000+ MXN to donate to Cruz Rosa in collaboration with the Female Empowerment Movement. Also, aware of the lack of access to nourishing meals, alongside our community, Cyberius donated 17 tons of food to families across Mexico in

partnership with the UN's organization: Zero Hunger, complying with SDG #2. Likewise, our team's impact transcends the workshop doors; our members are change-makers. Last year, through an initiative called Tierra Joven, we built the first compost center in Santa Catarina. Since, our campus prevented 355 kg of CO2 emissions. This project will be shared with nearby schools as a blueprint to remove our label as the most contaminated city in the country. In Mexico, opportunities are not found, they're created, and Cyberius dares to push the boundaries that limit us from reaching the sky.;

