#### FIRST Impact Award - Team 7748

#### 2024 - Team 7748

**Team Number** 

7748

**Team Nickname** 

**TECHTOLIA ROBOTICS** 

**Team Location** 

istanbul, 34 - Türkiye

Describe the impact of the *FIRST* 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 *FIRST* programs as mentors/sponsors.

The participation of our team members in FIRST has been instrumental in the development of self-confidence and honing advanced personal communication and written skills. They express ideas confidently, devise practical solutions, and navigate challenges with fresh perspectives. Furthermore, the program serves as a catalyst for future career planning among our alumni, particularly in the realm of STEM, with a majority, averaging at 80%, pursuing engineering disciplines at the university level.

Describe your community along with how your team addresses its unique opportunities and circumstances.

Aligned with FIRST's "more than a robot" ethos, the 7748 team is committed to disseminating STEM knowledge and inspiring individuals. Through outreach initiatives targeting secondary schools, we have imparted STEM education to a substantial cohort of 6950 girls. We aspire to serve as exemplars within society, thereby contributing positively to the environment and broader community. Furthermore, we conduct weekly STEM training sessions for 42 students hailing from various educational institutions

Describe the team's methods, with emphasis on the past 3 years, for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?

Our team has garnered noteworthy achievements within the landscape, notably securing the championship title in 2023 with the attention of local media organizations visiting us to conduct interviews. Our engagements effectively spotlighted the FRC community and our team's all-female contributions, catalyzing interest in engineering among young individuals in FIRST robotics. The resultant coverage has reached 291.488 viewers through televised broadcasts and publications attracting 153.216 readers.

Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.

Members of 7748 exemplify Gracious Professionalism, in the execution of their projects. Their endeavors encompass a diverse array of initiatives, spanning from environmental welfare projects to communication

initiatives, assistance for disadvantaged populations, and support for fellow FRC teams. Additionally, they actively mentor 10 middle school teams from different regions, and participate in competitions such as FTC, FLL, and Vex. They not only mentor them but also be their role models.

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

During the 2023 season, our team established the 9264 Hunters team. Moreover, we established the Arpex 8759 and BEY-TEK 8254 teams. Additionally, we helped 5 rookie teams by facilitating the necessary materials, conducting instructional sessions, offering mentorship, and granting access to our facilities. Furthermore, we spearheaded the formation of three FTC teams and participated in the inaugural Off-Season event in our region. Notably, one of our team captains received the Dean's List Award.

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?

Our endeavors have encompassed the facilitation of STEM workshops, provision of mentorship to students, orchestration of outreach events, and establishment of partnerships with educational institutions. Over the preceding 3 years, notably been heightened interest in STEM disciplines, and an augmented inclination toward pursuing careers in STEM fields. Furthermore, a noticeable transformation has occurred in the gender composition within the STEM domain, attributed in part to our team's efforts

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

Helping and solidarity is one of the biggest steps of Gracious Professionalism. For this reason, we held online meetings with 262 members from all over the world. On social media we started challenges, shared posts with other teams. In addition, with the support of our sponsors, we had the chance to organize face-to-face events such as Alunmi Talks, SYC and the 2023 and 2024 seasons Kickoff. Also we had arrangements with 6 schools and made presentations about STEM, gave sessions about algorithms

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

As an all-girl FRC team, equality and increasing inclusion is our fundamental purposes. We aim to create the perception that everyone can be successful in this community regardless of gender, and to instill equality and diversity awareness into other teams. We have 5 projects in this direction and we reached out to 2.533 people through social media, our e-magazine that we prepared and face-to-face organizations. Because we are a girls team we tried to make equality with the teams that we started

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

Our team operates within a framework characterized by a master-apprentice dynamic, whereby experienced members provide training and mentorship to incoming recruits. Additionally, in a bid to support our alumni and contribute to the broader community, we initiated an organization offering employment opportunities to former team members. Through these initiatives, we actively promote the

dissemination of STEM, provide tangible benefits to our alumni network, and fortify our team's sustainability.

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

Acknowledging the role that sponsors play in sustaining the team, we send monthly notification emails to all sponsors, providing comprehensive updates on our activities and achievements. Moreover, we host meetings each season to furnish sponsors with detailed reports about our accomplishments and goals. Additionally, we ensure prominent visibility for sponsors by prominently displaying their names on our robot, social media platforms, on gifts distributed, and on team apparel such as uniforms.

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

Adherence to precise timing is paramount, necessitating meticulous planning and execution of tasks. Recognizing a deficiency in this aspect, our team implemented a systematic approach to address this issue. Specifically, we developed a comprehensive calendar and integrated alarms, reminders, and to-do lists aligned with our monthly planning objectives. We ensured that we were adequately prepared to meet deadlines, thereby enhancing our overall efficiency and effectiveness in project management.

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

Our team is dedicated to advancing the mission of FIRST by fostering inclusivity and diversity in STEM. Through targeted engagement efforts, we've effectively showcased our team's all-female contributions within the FRC community, igniting enthusiasm for engineering among young individuals. Our progress is evident in the increasing interest and participation of aspiring engineers in FIRST robotics activities.

# 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.

We are the sole all-female team within the FRC Türkiye community. We take great pride in our gender identity and the accomplishments we achieve, striving to promote acceptance and inclusivity within our sphere of influence. Central to our ethos is a guiding motto: "We never lose, we either win or learn." This mantra encapsulates our resilience and commitment to continuous improvement, underscoring our dedication to leveraging every experience as an opportunity for growth and advancement.

#### Judge Feedback

Who/When	Feedback
Mar 11, 2024 01:07:15 AM EST	"What criteria do you consider to be the most critical when evaluating candidates for the Chairman's Award, and how do you assess the overall impact and sustainability of their outreach initiatives?"  An area the team has an opportunity to improve.  Something that really impressed the judges.
Essay	

We have left behind seasons filled with excitement and joy. Our journey has been marked by laughter, camaraderie, occasional tribulations, and triumphs. We became champions several times and most of all, we became a team. FIRST has taught and given us so many significant things. Now, let's talk about what we have contributed to FIRST... Social Activities Techolia places paramount importance on fostering interactions with fellow teams and fostering collaborative endeavors. Our endeavors in this realm encompass a spectrum of projects aimed at catalyzing engagement and synergy among peers. Kick-Off In the 2023 season, with the support of our sponsors, we organized Turkey's largest KICK-OFF event in collaboration with the 9264 Hunters Robotics team. We hosted over 650 FRC students from 33 teams. The event that we have made became a tradition, attended by 500 students from 23 teams in the 2024 season. We provided the participants with workshop training on FRC and STEAM. Sharing Experiences During the pandemic, we had to move everything on the virtual platform. Therefore, we initiated the "Sharing Experiences" project. We reached 436 FRC members worldwide, aiming to maintain the connection between FRC teams. SYC As Team 7748 FRC, we brainstormed and initiated a project called "Sensitive Youth Community" with the support of our sponsors. Our event took place on February 12, 2022, with a total of 69 participants. In the first half of the day, our guests gave online speeches. In the second half, participants were divided into five different committees to find solutions to the problems faced by teams in FRC and develop projects. After sessions, each committee presented five-minute presentations. Vex Open One of our major goals in promoting STEAM was the Vex Open event. On January 13-14, 2024, we organized an enthusiastic event with the participation of a total of 106 teams, including 66 middle schools and 40 high schools from 4 different countries, and over 1000 students. Volunteer As a team, we embrace conscientious professionalism and helpfulness, which is why we provide voluntary support as a team in FRC, FTC, and VEX competitions. Our mentor Emrah Akdeniz supported the Vex competition held in Azerbaijan, and our mentor Ali Kan provided support as a judge in the Vex Open event held in Turkey. Additionally, our volunteers within the Fikret Yüksel Foundation play an active role in organizing FIRST events held in Turkey. Campaigns and Outreaches In the modern era, nothing has a more powerful impact than the influence of social media. Therefore, we, as Techtolia, always kept the power of technology in mind and shared our important campaigns for the greater good with the world. Safety Safety is of paramount importance to us. Therefore, last season, we reached 2352 people by sharing a series of posts about safety rules on our social media accounts. Additionally, we created an online safety game, and you can check our pit to download and play it. Give Way to Favor For over five years, we have been actively involved in delivering aid trucks from our school to those in need. Additionally, we distributed scarves and beanies knitted by our members to those in need. Every year, we have been able to meet the needs of more than 2500 refugee children and women. Aid for Earthquake Victims After the earthquake disaster in our country, we collected donations to assist our brothers and sisters in need in the earthquake-affected areas. We participated in relief efforts conducted in various locations in our city as a support. In the Press The Turkish press visited our workshop and conducted interviews with us. Additionally, we presented our team, achievements, and FIRST on leading television channels in Turkey. In total, we reached 291,000 viewers and 153,216 readers. Magazine To raise awareness about renewable energy, we prepared a magazine. Podcast We created a podcast series where we address issues in FRC, attempt to generate solutions and guide rookie members. The series we developed was listened to by a total of 1036 listeners. Meeting with the President Our President, aware of our achievements, hosted our team at his office. We discussed with him the visa and customs issues faced by FRC teams. As a result, based on feedback from other teams, we saw that a solution was found to the problem. Gender Equality As the only team consisting solely of female members in FRC and many other competitions, we believed that gender equality is one of the fundamental issues that should be discussed and acted upon first. Below are some of our projects related to this issue. Live About Women We conducted a live broadcast on our social media accounts with Professor Aşkın Asan,

the former director of our school. She has been a main supporter on this journey. We still possess the courage she gave us to be a girl in this patriarchal STEM society, especially during the team's inception. Our live broadcast mainly focused on "Women in STEM." Equal.FRC "@equal.frc" is a project written by the 3rd committee of SYC. This social media platform, jointly established with six different teams under the leadership of Techtolia, aims to promote gender equality in FRC Turkey and STEM. To popularize this, we increased inter-team interaction by conducting live broadcasts with prominent individuals who have achieved success in this field within FRC. Currently, we are collaborating with rookie and senior members from eight different teams. E-Magazine As Techtolia Robotics, we published an E-Magazine to promote FRC. Our first issue is about "Women in STEM and FRC." The members who prepared this magazine have concluded that it would be more accurate to first tell our own story for readers to better understand our current situation. Speak Out We participated in and developed projects related to gender inequality in STEM in the Speak Out program. By providing regular Java training to high school girls every week we made a total contribution to the regular education of 1100 girls. NATURE Amidst all these social projects, we do not forget our environment and our little friends. Zero Waste As Techtolia Robotics, we aim to impact everyone through our projects. We contributed to the "Zero Waste" campaign, spreading environmental awareness. With the help of our school, 1700 students and their families recycled 800 kg of waste every month. Compost and Seeds Last season, we prepared compost using organic waste from our school's students. We demonstrated the composting process by observing our compost for 2.5 months. Once our compost was ready, we planted it around the trees and plants in our surroundings. Additionally, we distributed seed bombs made from waste paper as souvenirs during our competitions. Cat Shelters and Food We did not forget our furry friends on the streets. By placing various cat houses and providing food, we ensured shelter and nutrition for them during the cold winter days. YOUNGER GENERATIONS Our world's youth are smart. Therefore, we insist on involving the younger generation in our projects, making them a part of STEM, and being their preferred choice. VEX-FTC We formed the Techtolia Junior team from our middle school students, participating in various technology competitions, including Vex IQ, FLL, and FTC. In addition, we established five different VEX teams consisting of 123 students and two FTC teams consisting of 24 female students. STEM Curriculum Our mentor Emrah Akdeniz and our team members prepared STEM curriculum for grades 5 to 9. Our team members assisted them with homework and projects. With these lessons, more than 9500 girls in our school received STEM education. Algorithm Training We provided algorithm training to 4,425 elementary and middle school students from three different schools. Weekly Training We continuously provide detailed STEAM education to a total of 162 middle school students from three different schools. We participate in competitions with the students we have developed through training. FLL & Lego Education We provided basic Lego education to 40 students to participate in FLL competitions. For Earthquake Victims After the earthquake disaster in our country, we went to the region to support activities in the earthquake-affected areas. We provided STEM education to children there to alleviate their pain and sorrow. ROOKIE We believe that sharing our knowledge can be more valuable. Communicating our successes is undoubtedly one of the most exciting parts of our projects. Teams we assisted in the previous seasons are Arpex 8759 and BEY-TEK 8254. We also assisted five different teams in finding necessary materials, providing lessons and mentor support, opening our workshop for their use, and more. Hunters Last season, we ensured the establishment of the 9264 Hunters Robotics team. As 7748, we shared our sponsors, workshop spaces, mentors, all technical resources, and even our members with them. Two of our mentors and five of our members officially joined the work of the Hunters team, which became champions at the Bosphorus Regional. Handbook As 7748, we designed a handbook for all new members of FRC. This handbook contains the necessary information to inform and guide new members of a team, covering explanations of all terms needed. SUSTAINABILITY Sponsors To ensure sustainability with our sponsors, we regularly send them informative emails. We maintain communication

on special occasions and visit our sponsors at regular intervals. Company To ensure the sustainability of our team and create employment for our graduate mentors, we established a company called Techtolia Robotics. Besides providing employment, our company aims to promote STEM and train young people interested in STEM. For the last 3 years, we have reached 467,948 people and shared information about FIRST and STEM. We provided direct education to 11,404 people. To reach more people, we continue with our projects.;