

## FIRST Impact Award - Team 5665

<b>2023 - Team 5665</b>
<b>Team Number</b>
5665
<b>Team Nickname</b>
SPARC
<b>Team Location</b>
ISTANBUL, 34 - Turkey
<b>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.</b>
The biggest impact of the FIRST program on our team is that every team member has a common purpose, regardless of when they join the team, even if there are different opinions from each head, the idea of having a common purpose makes us "one". Regardless of the field we work in, the motto of "reaching as many people as we can", which FIRST inspired us to create, contributes to the fact that every field works in coordination.
<b>Describe your community along with how your team addresses its unique opportunities and circumstances.</b>
By definition, community means a group of people living in the same place, but it has a deeper meaning at SPARC. Community provides opportunities and helps us flourish. As SPARC, we take advantage of these opportunities and give back to the community we live in. For example by doing donations, such as the donations we did to Africa; by ensuring sustainability like we did by planting seeds after the forest fires; by raising awareness like we did with our "Hear me out, get to know me" conferences.
<b>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?</b>
For the past 3 years, our motto has been to reach as many people as we can. And to achieve this, we have worked with different organizations such as Idea Universal and PayaStem. With their help we reached over 3000 children in need and gave STEM workshops. Furthermore, we taught more than 10 000 people the values of FIRST and STEM. We measure results by looking at the amount of lives that we have affected and will continue to affect with this motto.
<b>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.</b>
At SPARC, each team member is a role model, influencing other team members and increasing the awareness of first. SPARC is known for its cooperation among team members and its sense of unity. With every STEM training we give, every all-nighter we pull to make the final touches to our robot, every

new team we establish, every app we create, and every sustainability project we come up with, we become role models within the FIRST community.

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

We established Kaiser, Zapyon and 13 more FRC teams and 5 more FLL teams such as Leg Goth. We continued to mentor teams such as Zapyon and PayaSTEM. We hosted FLL and VEX workshops at Maker Faire. After opening Turkey's first VEX workshop in Istanbul, we expanded to 6 more cities. We became a crowded family with PayaSTEM. And for the future, we have kept in touch with the aim of establishing a team abroad. We have no doubt that it will be established as soon as possible.

**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?**

Since 2018, we have been giving STEM training to students all around the country; from Hatay, Kocaeli, Izmir, Balikesir and Gaziantep. We reached out to approximately 3000 students and helped them gain new skills in science and technology. This also helped them advance their own teams that we established. We have also opened up 3 STEM centers; Cankiri STEM, Balikesir STEM, and PayaSTEM. We have worked with children with leukemia in the Cankiri STEM center.

**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**

The 2 main partnerships we've created have been with PayaStem and Idea Universal. With their help, we have been able to reach numerous people and introduce them to STEM. With Idea Universal's help, we donated solar batteries to a village in Africa. In addition, last year, by joining forces with team Robin, Fmwill and Kaiser, we formed a group of 17 people called the 'Awareness Team'. With the newly-formed team, we collected used masks, recycled them, and ended up using them in our robot.

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

Our team has showcased tremendous efforts to promote equity, diversity, and inclusion. For instance, we have prepared a video series called "We Asked the SPARC girls" where 7 boys asked 7 girls about women and their place in business life. We have strived to maintain equity by always choosing one boy and one girl as co-captains. We have maintained a diversity of opinions by having members from all around Turkey. We have always made sure that everybody got included.

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

As SPARC, we always prioritize the sustainability of our projects, so we prepare presentations and manuals describing the previous year's projects in detail for our new members every year. In order for new members to gain experience, we assign them tasks to better understand the projects during the off-seasons that take place at the beginning of the year. After all team members have mastered each project, we start adding to and innovating our projects done in previous years.

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

**past 3 years**

We have endeavored to recruit sponsors, such as getting out of our comfort zones each time and cold-emailing CEOs. We have a sponsorship manual that includes our budget for the year, our plans and the mechanics equipment that we need in order to bring our plans to life. That sponsorship manual gets shared with each sponsor we recruit. To engage them, we share with them each update we get to our robot and each PR project we come up with.

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

Even if everything is going well, there's always room for improvement. There are always areas in which we can better improve ourselves. During the pandemic, we were financially having a hard time and didn't have many sponsors. When we identified the problem, we then started coming up with solutions. We started to get out of our comfort zones more, conducted meetings with sponsors we were possibly going to recruit, and gradually became more comfortable and stable.

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

We started this journey in 2015 with 18 students full of high hopes and one mentor. SPARC is now a team of more than 100 students and multiple mentors. Our team has always strived to maintain equity and cooperation. We aim to reach as many people as we can, while functioning by the motto 'progress, not perfection'. We are each other's biggest supporters, so we always have each other's backs. We've made tremendous progress towards our goal, for example, the village we helped in Africa.

**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.**

A memorable aspect of our team is how inclined we are towards the *FIRST* value of discovery. Our PR captain Azra has been on the PR team, the mechanics team, the safety team and is now the captain of the PR team. We encourage everyone to branch out and try new things. Another noteworthy aspect is how likely our mentors are to continue contributing to *FIRST* after graduating. Our lead mentor Ilgar has devoted his last 7 years to the *FIRST* community and is still committed to the *FIRST* values.

**Essay**

By definition, role model means a person looked to by others as an example to be imitated. In SPARC 5665, it means so much more. With our devotion to each other and to the *FIRST* values, each one of us is a role model to each other. With the passion that ignites our motivation, we strive to achieve gracious

professionalism, while functioning by the motto “progress, not perfection” and trying to reach as many people as we can. In the competitive environment of FIRST Robotics Competition -teams chanting their numbers, flags waving, foreheads sweaty, and hopeful eyes following the rankings- anything could go wrong. However, since 2015, SPARC has been known for its cooperation. The colorful spirit that SPARC contains within, tries to reach as many people as it can and touch their lives.

The color gray... It's typically considered a mixture of black and white, but if it's mixed with another color, gray becomes colorful as well. The world was gray at first, but the colorful spirit of SPARC spread and started integrating color into everything around it. Into a gray-colored world, SPARC was born in 2015, with 18 students and one mentor. We are now a large family, with more than 100 students and multiple mentors. SPARC consists of 5 main divisions: mechanics, software development, public relations, drive team & scouting, and safety. While managing our team, we strive to create a balanced and safe environment, promoting equity and inclusivity. As Generation Z, our most important mission is to speak out against inequality. In our project “We Asked the SPARC Girls”, 7 boys asked questions about women and their role in business life to 7 girls in SPARC, aiming to break stereotypes against women. By taking this step, we started spreading awareness, just like colors spreading into a gray world.

Next, we started a project called ‘Hear my voice, get to know me’ in the hopes of raising awareness on topics concerning mental health, social discrimination and pressure, sexual orientation, and LGBTQIA+ awareness. For these topics, we held conferences with psychologists. By joining forces with 3 teams, we formed a group of 17 people called the ‘Awareness Team’. With the newly-formed team, we collected used masks, recycled them, and ended up using them in our robot. Both of these projects were pit stops that our color palette made on its journey of improving the world and coloring it.

The next pit stop of our color palette was in Africa, in collaboration with Idea Universal. Idea Universal is an association that aims to find sustainable solutions to global problems. Driven by the FIRST value of inclusivity, SPARC built an innovative village in Africa. Our color palette started coloring Africa in 2018, helping the locals get access to clean water and solving their electricity problems by donating 100 solar batteries. The inhabitants in the village had a common source of income: Moringa tea. Showcasing our strong appreciation for the FIRST value of innovation, we decided to construct a device that would automatically produce Moringa tea from the plant's leaves. We constructed the device in our workshop and sent it to the village. With the yearly Secret Santa event we organized at our school, we raised \$4500. In 2020, we decided to make Africa even more colorful, thus, we gave \$500 in microcredit to women inhabiting the village to provide economic freedom for them.

A recent development in our Africa project is the organization “Youth For the Future”. At SPARC, we always cherish new ideas, thus, we formed a group of team members called “Youth for the Future”. This team constantly did online meetings during the pandemic and joined the 2021 World Water Day marathon, in order to raise awareness toward the conservation of water. Youth for the Future's main goal is to promote and share our project, to continue coloring the world, country by country, step by step. We then decided that we wanted this colorful spirit to impact the children that are seasonal workers and do not have access to education. We needed help from our long-time partner and friend, Idea Universal. We created an educational system that was approved by the Norwegian education system and installed the programs on tablets so that they could be more accessible. Our main goal was to translate this program into something that could be useful and beneficial for the children. We have translated more than 200 games, all of which help children with subjects such as English, Maths, and other subjects. Furthermore, the program aims to teach the FIRST values and help utilize them. Currently, our program is up and

running and ready to be discovered. In 2021, our country was greatly impacted by simultaneous forest fires in 17 provinces. In order to re-green the forests in the Marmara region, we started our "seed balls" project. Within the scope of this project, we came together with 2 high schools. As a result of our distribution of duties, each high school had different missions to complete. While one school was busy with organization, we were producing the seed balls and as the final stage of the project, the balls containing various seeds were launched via drones into the forests.

The colorful spirit of SPARC met with people from different age groups with the project "Education Card". The purpose of this project is to teach various concepts to people from different age groups. Our card is an autonomous system, which includes exercises that can teach colors, shapes, and words in different languages. This provides an education that appeals to those who learn best by visual methods.

When painting, we mix colors in order to create other colors. Similarly, when spreading awareness, we sometimes need to branch out and focus on different topics. Following the well-known motto "Safety first", we decided to hold a conference on first aid. Prof. Dr. Niyazi Ozcelik agreed to give us online first-aid training. This comprehensive training furthered our understanding of safety, allowing us to create a safe work environment and speak up about how important it is to know first aid. This allowed us to spread the color green, the color of first aid, into gray areas and continue on our journey, coloring the world step by step and making an impact.

Perhaps the most important issue we always talk about: reaching as many people as we can. In the field of FRC, we have established deep-rooted teams such as Team 6989/KAISER, Team 7552/PERSEUS, and 13 more; in the field of FLL, we have established 7 successful teams. One of our biggest steps ahead is to establish a new team abroad, and ensure that not only the team but also the country advances on the path of the FIRST values.

We also brought color to young minds by providing opportunities where they can learn about STEM. We have worked relentlessly in order to educate people on STEM. Throughout the years 2018-2021, we reached out to approximately 3000 students in total with our STEM seminars and workshops. Between 2018-2019, we distributed VEX, VEX IQ, Mindstorm, and Arduino kits to students from different schools; we established robotics laboratories in Hatay, Izmir, Kocaeli, and Mugla; we also established new robotics teams all around the country and trained them. Recently, we had a "What Is FIRST?" workshop at Atolye Uskudar.

The next stop of our color palette is the App Store! While working on this project, we combined our software, design, and PR teams and created a game, calling it First Steps. The aim of this quiz-like game is to understand the values of FIRST and the basic principles of STEM. With this app, we aim to reach as many people as we can and to learn while having fun with the philosophy of #sparcisaware.

The next stop of our color palette is at Hatay, Turkey! PayaStem is one of our oldest projects where we color every region and person we go to. To put it briefly, our adventure, which started with only 10 people in 2018, continues as the largest STEM center in our country. We started as the FLL team and provided them with Lego workshops and tournaments, as well as Arduino kits. As SPARC and PayaStem, we then participated in the New York Regional in 2018 and in the Turkey Regional Championship in 2019. With the numbers we have reached, it is clear that we have grown into a large and colorful family.

In 2018-2019, we reached a total of 1440 people from different age groups, races, genders, and

disabilities at PayaStem. Between 2019-2020, we provided STEM workshops and training seminars to 690 students in Hatay with the participation of 101 teachers. By combining robotics and STEM education, we reached 899 people in 2021-2022. In addition to this, we launched two different projects that address two main issues: adapting people with disabilities to modern social life and inequality in online education during the pandemic. During these training sessions, we included 30 Syrian children and 60 women so far in collaboration with the Japanese Embassy. We also resurfaced our old “disabled glasses” project and improved it by adding a facial recognition system. We created glasses that can identify the people around, as well as detect whether the people around them are wearing masks.

For our ‘Talk with Mentors’ project, the colorful spirit of SPARC met with the mentors of different FRC teams and colored the bright minds of our team members with new perspectives. We interviewed 10 different mentors and asked them about their experiences at FRC competitions regarding team spirit, and gender bias in. We posted these interviews on our social media accounts.

As SPARC 5665, with every brush stroke full of color, we aim to change the world and make an impact. We strive to do so with dignity and professionalism and stay true to ourselves and our values in the process.;

