- Team Number

5665

- Team Name/Nickname

Sainte Pulcherie French High School / Bahçeşehir University / ABB / ASAŞ Aluminium / Ford Otosan / Toksan Automotive / Globelink UNIMAR / Istanbul Chamber of Commerce / SISMAK / Veritas / Papa John's Pizza / KemiQ / 3M / Benri / Cavo Automotive / BİLGE ADAM

- Briefly describe the impact of the *FIRST* program on team participants within the last five years

The enormous effect the FIRST program has on our lives had led to amazing opportunities in STEM. We have gained scholarships in Bahçeşehir University in Turkey and various universities in Europe. Some of our alumni are studying in Torino University and Virginia Tech. Our alumni and current members participate in FRC and FLL as volunteers, some of them had worked their way into the executive board of "Bilim Kahramanlari" who organises FLL in Turkey.

- Describe the impact of the *FIRST* program on your community within the last five years

Our schoolmates meet STEM, through activities like "Hour of Code" we run in our school. We participated in the V. TAYSAD Maintenance Conference to present FIRST. The companies work within the foundation started to support FRC teams in Turkey. We ran and hosted the first Maker Faire in our school. It featured 31 workshops which brought 26 corporations together. High school students who are interested in robotics will also join us for South Florida Regional and we will sponsor all their expenses.

- Describe the team's methods for spreading the *FIRST* message in ways that are effective, scalable, sustainable, and creative

We reached all over Turkey via popular newspapers such as Hürriyet, Posta and Yeni Çağ. Our team member Bahadır Can has been invited to TRT and talked about our future proposes as a team. Two years ago we participated in a radio program called ''Geveze''. We travelled to Anatolia and gave many conferences at schools. We reached prominent companies and encouraged them to support FIRST. Plus, we have Youtube channel and we are currently working on a series explaining monthly innovations in STEM.

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

Friendship and inspiration are two of our core values, and we try to be reliable role models for the teams who both are and aren't around us.We try to be as hospitable and welcoming to the teams coming from other countries. We have numerous social media accounts so that the other teams can easily contact us. We shared our chairman's award submission and business plan along with our safety manual and a Turkish translation of the 2019 game manual in our website.

- Team's initiatives to help start or form other *FIRST* Robotics Competition teams

We have formed teams 7134, 6989, 6416, 7552 and 7140. Team 6989 was founded and is mentored by one of our alumni. We have started and currently assisting Team 7552 on building a good base. We have stayed in contact with the other teams we have founded as they know they can always come when in need of our assistance. We trained team coaches so that they can train their team thus a chain effect is composed by them training other teams.

- Describe the team's initiatives to help start or form other *FIRST* teams (including *FIRST* LEGO League Jr., *FIRST* LEGO League, & *FIRST* Tech Challenge)

We have formed 5 FLL and 2 FTC teams and as of right now, we are working towards starting 3 other FLL teams for the next season. Our team members will mentor one of those FLL teams alongside the FLL team that we are currently mentoring. We hosted FLL and VEX workshops in our Maker Faire. Turkey's first VEX workshop was opened by us in Istanbul. We later spread out to Ankara, İzmir and Aydın.

- Describe the team's initiatives on assisting other *FIRST* teams (including *FIRST* LEGO League Jr., *FIRST* LEGO League, & *FIRST* Tech Challenge) with progressing through the FIRST program

We exchanged knowledge, experience and materials with various FLL and FRC teams. Social media plays an active part as we take on a uniting role between teams coming from abroad and Turkish Regionals. We have contacted them all and offered them help in areas that may cause trouble such as accommodation, transportation, mechanics and even exploring the city. During the competition we try to help all the teams competing in regards of robot parts, networking and safety.

- Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (including *FIRST* LEGO League Jr., *FIRST* LEGO League, & *FIRST* Tech Challenge)

We not only started Team 7552, we let them join us for the Bosphorus Regional to help them get the hang of FRC. By constantly sharing ideas and guiding them in areas that they aren't as sufficient in, we've been mentoring Team 6415 and last year they accompanied us in TAYSAD. We also mentored the coaches of Teams 4972, 6014, 6985 and 7544.

- Describe your Corporate/University Sponsors

Our university sponsor Bahçeşehir University helps us with Maker Faire and provides scholarships for our alumni. We are supported by Ford Otosan in mechanics; Globelink UNIMAR in logistics; SISMAK in safety; Veritas in printing; Benri and 3M in supplies; Bilge Adam in programming training; Papa John's in nourishment and ABB; ASAŞ; Toksan Automotive; Istanbul Chamber of Commerce; Cavo Automotive in funding. In the future, we will be equipped with a 3D printer from KemiQ.

- Describe the strength of your partnership with your sponsors within the last five years

We maintain a genuine relationships with our sponsors. They are always more than welcome to come visit us in our workshops and our merchandise is gifted generously. And at the end of each year we have a ceremony in celebration of our collaboration. To show our gratitude towards our sponsors we prefer something with a greater value. We fund the education of a girl in Anatolia for each of our sponsors. We believe that making donates for our world is much more important than plackets.

- For *FIRST* Robotics Competition teams older than 5 years, briefly describe your team's broader impact from its inception

Celebrating it's 5th birthday this year, SPARC has been pushing through the limits since our beginning, our first competition. While we've grown as a team and as individuals, not just with our team members but with the whole FIRST community. We've walked this road of self-discovery together. Ever since the time we first teached STEM to various minds across the country and inspired them,

they have now grown to become a important part of the STEM community. This is what makes us the most grateful.

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

As someone who has never heard of FIRST before you may be taken aback when you hear that children aged between 15 and 18 build robots. You may laugh and not take it seriously. We did too in the beginning. But now we are a huge community who is confident in our skills in mechanics, programming, graphic design, public relations and more. It's not just about robots. It's about discovering your capability and therefore having the confidence that most people lack when it's time for the real world.

- Briefly describe other matters of interest to the *FIRST* Judges, if any

Our team spirit allows us to never hold back from the things that are on our way to success. Despite not being able to work during school hours we don't let that bring us down. We believe that we've learnt to not let this hitch affect our work in any way by working harder and prioritizing more. Staying after school for long hours and even staying for the night at times, using our holidays to improve our work more are not received only as duties but something we also enjoy doing.

- Essay: Judges encourage creativity of expression but the essay must clearly deliver information and facts describing what the team is all about. The essay should draw attention to the strengths of the team. This essay, along with the other information, will serve as the basis for the judges to make the decision on which team earns the Chairman's Award.

"Space the final frontier, these are the voyages of the starship Enterprise." is phrase everyone who watched Star Trek knows. What was viewed as impossible back then is now considered our reality. And this is what we are trying to accomplish here. Doing the impossible.
We are 5665 SPARC. We are a space enterprise who has dedicated itself to reach a place where everything is possible, where the limit is the outer-space. We are a team which consist of 26 girls and 22 boys who won't back out from working till we achieve things that are perceived as impossible and we will walk you through the process in which our rockets are launched.

Stacking:

First off, the upcoming rockets that we've been stacking the pieces for, are the teams we are planning to establish and our Youtube channel. On our Youtube channel, we plan on posting videos, as well as podcasts, to share news and updates related to STEM in a lively and comprehensive way. We view this as a great opportunity to extend the limits of spreading FIRST as we think that rather than English; teaching it in Turkish, our mother tongue, would be way more helpful to our viewers since it has never been done before. There are two sides of a coin, one is spreading STEM by informing the general audience and the other side is spreading FIRST by starting new teams. The new rockets we are currently stacking the parts of are 3 FLL teams and one FRC team in France. We launched many rockets before and we don't plan on stopping anytime soon to stack up new materials for our rockets to successfully reach the outer-space, where ideas come true.

Moving to the Crawlerway:

Besides the newer rockets just getting put together; another rocket is currently on its way to the launchpad to get fueled**.** Our destination is Africa. The mission of this rocket that we're still working on the funding of is simply building a smart village in Tanzania, Africa. This collaboration with the Idea Universal Foundation is being executed in four steps. Building smart water canals in order to solve the water problem, establishing a seed bank as a solution for farming, using solar batteries to bring in electricity and last but not least, enhancing the education of the children with the help of tablets. This all sounds great, but we wanted to make it even better by including something that was actually made by us, so we designed smaller water pumps that are way more portable than normal sized water pumps which could also be used for smaller water wells. They also use solar energy. So for smaller villages which don't have proper access to electricity it is both an environmental friendly gadget and an easier solution for the villagers. Of course this was not easy to accomplish as we had many struggles financing this huge project. We collected money day by day by selling homemade cakes, pastry and hosting a concert. We do all of this for the sake of the children and young adults in Africa where a lot of kids die because of the polluted water that is being used. Our goal is to fulfill their basic human needs, which is the least we can do.

Fueling:

As we get closer and closer to the launch we complete the stage where we have done many of the steps and slowly start preparing our rockets to launch. One of the main rockets we are fueling as of now are STEM trainings we gave in Hatay, Izmir, Gaziantep, Balıkesir, Izmit and STEM centers we opened in Payas and Çankırı. Ever since we've noticed that changing a country's conception of the world depends on changing the education system, we have been trying to do our best by spreading the message of FIRST. Turkey has a rote-learning based education system which has a bad impact on students. By aiming to change the system, our goal is to create a better one which can allow students to discover their potential on maths, science and logic-based activities and according to that we've trained more than 200 students and at our STEM centers we train at least 1200 students every month. Our other rocket being fueled also has a mission that has to do with education. We wanted to share our knowledge and experience with our counterparts who don't have the same access to various different resources as we do. Thus, we organised our first Maker Faire on May 13th 2017 and we are planning to host one this year as well. SPMakers is an event where creativity, craftsmanship and invitation are celebrated. It aims to influence everyone who are interested technology and we hope to give a different perspective of STEM education.

Pre-Launch Checks:

Our rocket, "optical-acoustic glasses" was a project that had a bit of a longer stay on the launch pad. It was a creation for people who are visually impaired that warns its owner by colour senses about the direction and intensity of surrounding sounds such as voices and warning signals. This project was really compelling in the beginning. The integration of this rocket took us 2 years to complete. During that time, we were slowly losing hope and people around us were telling us to abandon the rocket and move on to making another one but we worked twice as hard to accomplish our goals and currently the rocket is going through pre-launch checks. Another rocket we have that will also hopefully break some barriers is a wheelchair we designed for disabled people. The distinct feature of this project is its mecanum wheels. Its prototype has been finished but wasn't satisfying enough for us hence it hasn't been able to launch yet. But when it's done, it will have an increased ability to move and rotate. While we were working on this project we realised that, just a wheelchair is not enough. Thus, we designed a robotics laboratory to make it easier for them to work in an environment which is comfortable. By doing this we wanted to make sure that no disability is an obstacle on the way.

Start Up:

Our next rockets are aligned and ready for departure, the countdown has started. There are more barriers to destroy. One of the rockets is the Library project we run in collaboration with our school. Every year on October 29, the day we celebrate the establishment of the Turkish Republic, we repair a village school's library and donate them books. With the accompaniment of children's happiness, we sing and we play games with them. That is how we try to reflect the meaning of October 29, as well as experiencing it ourselves.
In Turkey, we have a day called Teacher's Day, celebrated on November 24. This day has great significance to us and we refuse to give materialistic presents when we could be giving something with so much more meaning, something influential, such as to see another child get the chance to go to school. For this purpose, since 2015, collaborating with our school we have been running the "Anadolu'da Bir Kızım Var" (I Have a Daughter in Anatolia) project to support two girls' education expenses in Anatolia every year with the help of donations. At the same time, we had plans for animals too; we built houses from recycled materials for cats and birds in our workshop.
The other rocket of ours that is taking off, is the rocket symbolizing the application called "SCODE" that we've designed with our team's graduates. With the help of this application that has been designed to teach children and youngsters how to code, children can easily learn while enjoying their time as if they were playing a game. This application has been downloaded 50.000 times by now, and it takes children's attention thanks to a variety of game spectrums.
Simultaneous with projects, tinier rockets are taking off from different parts of Anatolia. These rockets will leave a much bigger impact than their size. The "teams" that have taken off from Istanbul, Izmir, Aydın and from Hatay will lead the way to their surroundings, and like a chain, they will expand the FIRST community.

Now, we are in a space enterprise that is not so big but is a part of something bigger than itself. At the heart of this place there are people watching all these launches which are prepared to finally take off. They all have different pasts, different dreams and different interests but they come together here at this place trying to achieve a single great goal, something that connects them all; to boldly go where no man has gone before.