

FIRST Impact Award - Team 2905

2023 - Team 2905
Team Number
2905
Team Nickname
Sultans of Turkiye
Team Location
Istanbul, 34 - Turkey
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.
Our priority has always been empowering our members with new skills and preparing them for the future. 100% of our alumni graduated high school and earned scholarships, 98% are working in STEM and 90% are FIRST volunteers. That means over 450 of alumni volunteers with 250 hours per alumni. In this manner, our member Nazli received the Dean's List Award in 2022 for her dedication to FIRST. SOT has experienced alumni mentors who share what they have learned from their four years in the team.
Describe your community along with how your team addresses its unique opportunities and circumstances.
As all of our members study at DS which is a full-time boarding school/NGO; we have access to working in our atelier at any time we are available. Sultans also come from 22 different cities of Turkey which gives us a chance to spread our effect to different places by promoting our projects face to face. Our team is the first FRC team in Turkey so being a hub team for the community is a responsibility for us. Our alumnus are in touch with SOT as mentors to maintain sustainability.
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?
We are frequently using our social media platforms and learn about what the trend marketing tools & hypes are every year and give form to our projects according to those; our NFT collections The Tool Bag and Plant-Based!. Only in the last year, we have appeared on 78 digital media platforms and we get their reports from agencies and convert our accounts to get insights and also use KPI. From our social media accounts, we reach out to places that don't have access to FIRST and introduce it.
Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.
The team that took the initiatives to start the FIRST impact in Turkey, also raised members that embody FIRST core-values. Şeyhmus was the volunteer coordinator. Beren earned UK Royal Scholarship, established WaterDeploy and she reached out to 25m+ people to send water tanks to Turkey after the

earthquake. Ceren organizes ELCFor Kids&works at HUB21 to teach kids 21st century skills with Cem&Şevval. Our alumni-mentor Mertcan started BAU's Startup Society. Aslı founded Sabancı's blockchain club.

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

FLL team PAD is mentored by us among the FLL Jr. team we started in Mersin. Our website has SOTBlog where we share daily. FIRSTHelp has provided 157 materials, answered 135 questions, formed a video library with 9FRC-1FTC teams that is watched for 25k+ times, assisted 24 teams. FRCVirtualCamp streamed in 2022 w/international teams. We provided a networking area in SOTATHON for teams which was an event w/judge interviews, robot perf&ateliers. 8 members assist other teams at regionals in SOTCrew.

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?

The topics in published news of SOT and the workshops we give at the events that we organize are based on being an inspiration for young people to take part in STEM in any unique and effective way possible. Thus we try to help people develop skills in a way that can be used in careers and help them find their potential. We host the first 3D printing competition in Turkey, invite 12 of our alumni engineers for Career Days to 436 students and support our TeknoFest teams in terms of equipments.

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

With the cooperation of 9FRC&1FTC team, FIRST101 is a video library that got 1450+ views on YouTube. FRC Virtual Camp had the same aim, reached 8 countries&1847 students. SOTATHON was supported by 13 companies including Turkcell&TLC Gree. Students at our school are now getting the Entrepreneurship Curriculum we organized for them with Beba Foundation. Our sustainability partner, HUB21 donated 3D printers that are used by 800+ students. Tech Days was a seminar that had 11 brands&387 attendees.

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

Curious Kids Academy was a 4 weeks long camp organized in June 2021 for 63 middle-schoolers. It specialized on the basics of mechanics and the UN's Sustainable in Development Goals. We established the first WiSTEM Middle-East Chapter in Turkey. We also developed an FTC program for making FIRST available in Cambodia and Thailand with the project organizer of Middle and Far East; Suleyman Yilmaz. Sultans helped girls in underprivileged areas with sending math and science curriculums.

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

Our members know each other from 5th to 12th grade, we are able to adjust to the team easily. We transfer our knowledge through master-apprentice method. During the process of our acts to create an impact we divide it as yesterday, today&tomorrow. We make sure that our initiatives are influenced by the

impact in our yesterdays and prepare a base for tomorrows that has the same aim. We keep track of what we do daily making sure next generations have clue of what to expect/avoid/do during the season.

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

SOT always had a special bonding with their sponsors since 2009. We always include visits while planning our yearly schedule/analyze yearly reports & invite them to the regionals we attend. In the FIRST Championship 2022, Kahve Dunyasi provided us with sweets to serve at the championship. Also Pegasus supports us by supplying the flights for our projects in need of broadening the scope. We have a special sponsorship site on our website which includes all of our needs and sponsorship packets.

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

Since we stay at a boarding school, after the pandemic, it was hard for us to go beyond our school's boundaries because of the restrictions. SOT had a tough time reaching more people and pushing their limits. One of the reasons we continued to spread the FIRST Impact through our programs on Web3 platforms thus it would be accessible for the other teams. As the restrictions seemed to loosen up we invited other teams to our school for workshops&enhanced the interaction among the new members.

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

FIRST encourages students to take part in STEM fields which are all different worlds that consist of discoveries, engineering & inspiring; that's why we aim to spread it! Sustainability is the key for everyone in our team and the people we give workshops to. We not only try to involve them in FIRST at that moment, but also leave a mark on their lives which will last forever. In every event we organize, we make a great effort to make everyone embody the mission.

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.

Sultans' essentials have always been going the extra mile and taking it one step further. To do so, alongside helping our school furnish solar panels on the roof, we collaborated with Istanbul Municipality for a project to create automats for people to charge their technological devices which get their energy from the solar panels at metro/bus stations. We are also adapting to the sudden crisis' such as the recent disasters in order to prevent much worse cases all across our country.

Essay

THE SEED A single seed would help an empty field with fertile soil to create a jungle but at first it would take great encouragement to do so. Taking the initial step and growing the tree by strengthening its roots, stem and branches will inspire millions of people who want to be young STEM leaders. The ecosystem of FRC Turkiye was created in 2007, when the seed of Sultans was planted. Even though we faced some obstacles throughout our journey, we still managed to do what we could to reach the dream of ours; seeing the Sun.

PLANT ROOTS The base of the tree is created by the roots. What keeps our roots together is the effort we put in to make STEM available for everyone without consideration.

As the whole FIRST Community, we contended with the pandemic's effects when we came back to the field and saw the obvious knowledge gap between the team members. The effects of the pandemic were like removing a poisonous herb from a garden and still seeing the harm for a while. That's why we aimed to create a reliable base like the roots do for the tree by organizing SOTATHON to raise the interaction after a long time and make a similar experience to regionals. It was supported by 13 companies and had a participation of 6 teams from Istanbul and Izmir. SOTATHON included robot performance challenges, judge interviews, ateliers on programming/outreaching/autonomous and many more unique subjects. The total attendance fee, ₺1500, is donated to TEMA, LOSEV and 3 other charities.

When we first started our team, there were no Turkish sources we could benefit from. We realized the deficiency of the Turkish FRC Library and the printed sources of FIRST either lacked language variations or cost too much. We interlocked our roots within the help of the teams creating SOTBook by submitting articles all around the world. As the pioneer team of Turkey, the book's hardcopy is sent to all Turkish teams and the E-Book is available on our website. The book has 10 chapters on "Pre-Season Preparations", "3D Printing", "Fair Play" and more! Speaking of fair play, you cannot explain FIRST without mentioning Gracious Professionalism. 8 experienced members from our team form SOTCrew in order to help teams in need of mechanical, electronical, strategic planning & coding support during regionals. When you have knowledge that's aggregated for 15 years, powerful networks play an important role. SOTVisor is a product-focused platform where members of all FIRST programs and experts are micro-matched to answer specific questions.

Our impact reaches worldwide. As it's our responsibility to take it one step further, we reached out to Technische Hochschule Wurzburg Schweinfurt, a technical university in Germany and introduced FIRST to 5k students while working hard to establish even more projects with them. We also got in touch with Esenyurt Middle School and inspired more than 450 students. Within the hope of sticking our roots stronger than ever, we strive to reach out to everyone.

PLANT'S STEM The stem is the most important part of the tree along with the roots and that's why we try to create an impact in FIRST to sustain the tree that was only a single seed on the whole field. As the technology develops, it's our responsibility to adapt to it and create an effect within the yields of it. In this direction, we published "The Tool Bag" in 2022, the first NFT collection of FRC which consists of 57 NFT pieces with tools from our atelier. The function of the plant's stem is to support the branches by conducting water and minerals. Our tree's nutrition is supplied from our NFTs' profits, in which we sold 13 of them, making \$65 and spent on kits for our FLLJr. curriculum.

As our stem gets wider, we try our best to make dreams become reality by virtual reality! Our VR

Workshops include interactive minigames for electronics, mechanics, coding and project development for multiplayer where they experience real-life ateliers by using the VR sets. This workshop is designed specially for kids to enjoy it with their parents or teachers since these two roles are undeniable for the kids to track down their dreams! 2,905 trillion SultansToken were generated to celebrate our team's 15th year anniversary. We designed "The Scouting App" in order to help teams scout for their alliance picks. It is our biggest motivation to assist other teams on our journey of reaching the sun. (ilk türkçe mi)

TREE BRANCHES Branches not only support the structures for the fruits but also help us reach out to more people by separating from each other and going in different directions. To strengthen their branches, we are increasing the equality in education by collaborating with NGOs. Within our tree's branches we wish to make an impact on people. We are the first and the biggest chapter of WiSTEM in Turkey with 259 women joining us on this journey. The Math and Science curriculums that we translated into 4 languages reached 1827 girls who cannot access quality education all over the world because of the issues that are caused by economics and politics. The countries are Iran, Palestine, Afghanistan, Panama, Costa Rica, Germany and Canada. Leading all that needs a sign to join STEM acts, we organized Curious Kids Academy that has taught basic coding algorithms from Kodris and inspired 63 kids to pursue joining UNDP projects. Since we want to prepare students for the future, from April to June 2021 we held Tech Days within the cooperation of 11 different companies such as Hepsiburada, Colendi and Just Eat to 387 attendees.

Kids take most of their inspiration from what they learn at school and home. That's what led us to organizing STEM Education For Educators to 70 teachers and STEM Education For Parents to 37 parents. The 10 weeks long FLL Jr. curriculum we prepared is being taught to 243 kids aged 4-6 in Yuvamız İstanbul kindergartens with IBB and Beylikdüzü Municipality. One of the essentials for our team is to keep the branches as strong as possible to see the outcomes in return with inspiring the world and assisting people. Along with kindergarteners, our school's 10th grade students are currently having weekly entrepreneurship lessons we prepared with BEBA Foundation. Our website includes SOTBlog, where we upload weekly blogs on various subjects to narrate our experiences to other teams. We hosted FRC Virtual Camp for 3 days with Ri3D, #11 and #3132, we had over 2k participants from 8 different countries.

When growing a plant, you have to keep track of its watering and sunshine hours. That's the reason why we plan to upload our educational sources to our website for Progress in Education, where they can use it to access the educations and submit their portfolios if they register; when our country and lives go back to normal.

FRUITS Roots create the base, stem helps the tree to stand strong, branches separate and live up to different areas. We produce fruits, to make a change for the better, to help those who water us everyday on our journey of reaching the sun.

So many precautions are taken against industrialization but many of them have not hearten people to take action. Therefore we released our 2nd NFT collection which we published in February 2023. Plant-Based! is released on Solana, the greenest crypto with low energy required. 12 AI generated NFT's are coded to destruct themselves if the emitted carbon in the month that is associated with that NFT is at least 2 PPM higher than the same month's 2022 data. Each piece represents different trees in a dystopic-mechanical way to indicate Industrial Revolution's horrifying effect on nature. To spread the message "giving nature what we take from it", 20 saplings per each destructed NFT are being planted.

The collection is currently exhibitable by everyone on Metaverse with its 2D and 3D models!

We also got in contact with Can Yayinlari to display the manifesto written by us about the torture happening in the nature on the back cover of the books they have recently published to reach out to more. All of these efforts help the tree produce the fruits, where we touch a lot of people's hearts from several particular audiences.

There are various fruits on our tree where we help people in every area. One of those areas is our school's FLL team, Panic at Dacka. We helped them design a variety of special prototypes for metros, ships, buses and planes that use piezoelectricity, sound energy, hydrostatic pressure to decrease their carbon footprint. In December 2022, we gave away 500+ test books to 11th-12th graders in need and recycled 100+ books that were not appropriate for use. Our members form 40% of our school's student council thus we are designing the solar panel prototypes for our school to cover our gym's roof with them to supply 25% (5 MW) of energy needed for our school until 2025. That's not all, we expanded the radius of our impact on renewable energy to our city, Istanbul! We are in contact with Istanbul Municipality to switch the USB Charging Systems' energy source to solar energy. Fruits are the last step of growing a tree and this is one of our last chances to save the future that belongs to us.

THE JUNGLE The glorious journey that started with a single seed has now turned into a huge forest consisting of 287 Turkish teams. These trees, which are working hard to spread STEM and leave a legacy on development for the future, have their roots firmly clamped together.

As SOT, every time we inspire a small child, help those in need, and spread the message of FIRST, our roots grow longer, our stem get wider, our branches grow stronger, and our fruits become just as sweet! ;

