

Chairman's Award - Team 3646

Print

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2019 - Team 3646

Team Number

3646

Team Name, Corporate/University Sponsors

Bahcesehir University/Bahcesehir Colleges/Turkish Air Force/Turkish Stars/Ministry of National Defence/Borusan Holding/Koc Holding/Autodesk Turkey/Atom Karınca/Yildiz Kalip/Basaksehir Municipality/Alkilic Foundation/TUNCEL SMMM/SolidWorks/Bahcesehir High School for Science and Technology&Bahcesehir High School for Science and Technology

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2018/2019 year and the preceding two to five years

Realizing their enthusiasm in science thanks to FIRST, many of our alumni have preferred STEM majors & are majoring at universities like Yale, Harvard, Stanford & MIT. They have acquired more than \$6.000.000 in scholarships with what they've attained through FIRST. The multicultural environment at FIRST events, both at FLL & FRC, has given us the success of networking with people around the globe & accelerate our communication skills, thus converting our local efforts into a global impact.

Describe the impact of the *FIRST* program on your community with special emphasis on the 2018/2019 year and the preceding two to five years

Introducing the wonders of science was our ultimate goal when we travelled 7000+ miles across the nation on our Science Truck and informed people about FIRST. We also designed & built science stations which resulted in the opening of 42 local science museums. We sent STEM kits to 80+ schools and changed the perspective of students on STEM. FIRST inspired us to inspire others. Now Turkey is more familiar with robotics & the number of Turkish FRC teams has skyrocketed in the last few years.

Team's innovative or creative method to spread the *FIRST* message

As space transporters, we use high altitude balloons to launch various items into near space such as the FIRST logo & the Power Up Arcade. Then we were invited to Beyaz Show, a popular TV show, & talked about FIRST to millions of viewers. Besides being on news channels like CNN, we also attended Bett Show, a top-tier EdTech fair in London, & gave a speech about FIRST to thousands of visitors. We've been introducing FIRST with our FIRST Tours to teachers & students around Turkey since 2014.

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

After we helped save a puppy from a 130-ft. deep well, we showed robotics can be life-saving & inspired the FIRST community to further pursue robotics. We've also started a video series called A Project A Day on our website where we explain our projects, tell the journey of our team & advise rookie teams. Moreover, the science museum we established in Izmir is being used by other teams to organize events. We shared our CNC designs with other teams to help them contribute to their communities.

Describe the team's initiatives to help start or form other FRC teams

We seek to promote FIRST by starting 15 teams (6025, 7293, 7320 etc.), providing sponsorships & mentoring. To enlarge the FRC community, our alumni helped start the 1st Turkish regional. We provided a machine shop & volunteered at the Turkish Robotics Off-Season for 3 years. We have launched many teams' journeys with our FIRST Tours. These have even taken us to Japan & the UK & brought people from Canada, Mexico & South Africa to us. We are working with representatives to start teams there.

Describe the team's initiatives to help start or form other *FIRST* teams (including Jr.FLL, FLL, & FTC)

Our main mission is to show the impact of FIRST both locally & globally. Our programming workshops were a brief introduction to FIRST tournaments, attracting students of all ages in our community. Our alumni mentor FLL teams wherever they go. Our team promoted STEM & FIRST "glocally", started 58 FLL teams, brought Jr. FLL to Turkey, organized the 1st Jr. FLL event & arranged mentoring workshops to introduce FIRST to adults. We held the 1st Turkish FLL Off-Season with the attendance of 82 teams.

Describe the team's initiatives on assisting other *FIRST* teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the *FIRST* program

To increase interactions between FIRST teams internationally, we established the 1st CV database of FIRST members, integratedfirst.com, where we publish translated content. With Autodesk TR, we gave CAD lessons to FLL mentors willing to become FRC mentors. We visited 30+ FLL teams & hosted students from all around Turkey in our dorm for tournaments. We travel to cities to mentor FRC teams (e.g. 7672) on mechanics & PR annually. By budgeting, we opened an FRC lab in the schools of 6429 and 7742.

Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (includes Jr.FLL, FLL, FTC, & FRC teams)

Expanding the FIRST family with our companions is one of our main goals, so we publish The Companion monthly, a robotics & FIRST e-zine we created together with 6+ FIRST teams, e.g. 6909 & 6662, to share tournament memories, give advice & keep in touch. We wrote FIRST 101 with FLL team Intersection, a book explaining the basics of all FIRST events to help rookie teams. We've mentored 34 FLL teams, including one from Pakistan & 4 with 6025. With FLL alumni, we have been mentoring 8 Jr. FLL teams.

Describe your Corporate/University Sponsors

Bahcesehir University / Bahcesehir Colleges / Turkish Air Force / Turkish Stars / Ministry of National Defence / Borusan Holding / Koc Holding / Autodesk Turkey / Atom Karınca / Yildiz Kalip / Basaksehir Municipality / Alkilic Foundation / TUNCEL SMMM / SolidWorks / Bahcesehir High School for Science and Technology

Describe the strength of your partnership with your sponsors with special emphasis on the 2018/2019 year and the preceding two to five years

Our sponsors are business partners & distinguished members of our team. We facilitate STEM-related events with them, e.g. Robothon with Borusan, in which students from top-tier universities coded a robotic arm in order to complete endeavoring tasks & the winner was awarded a Borusan internship. We encouraged BAU to be the first Turkish FIRST scholarship provider. Even better, a platinum one! Due to our efforts, they now offer up to \$40K per year worth of scholarships to FRC and FTC alumni.

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

FIRST participants are stars & FIRST is the universe that makes those stars bright, unite & become a family. We are all special and unique. So, FIRST unleashes the potential & passion waiting inside us. It gives us the strength to confront challenges, find innovative solutions, contribute to or even save lives. FIRST gives people of all ages a reason to search, learn and know. When one knows more and wants to enlighten people more, they take action to #makeitloud and change the world!

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

To raise awareness & find innovative solutions to global issues, we've been organizing the Young Diplomats Conference for 5 years, this year with the attendance of 120 students from 40 cities. This year's theme was "Women in 21st Century", parallel to our #Girls1stTurkiye campaign which inspires girls to be more confident in STEM fields. To promote this idea, we shot an inspiring video with the first & only female wing commander of the Turkish Air Force, Esra Ozatay and made it loud for girls.

Team Captain/Student Representative that has double-checked this submission.

Ekin Senvardarli

Essay

Don't you think that the sky looks so brilliant this morning?

The sun shines charmingly as if today will be one of the best days of my life. My friends and I, a group of excited paper planes, are piled in a box that is connected to a High Altitude Balloon. We are all packed together waiting to be released to the stratosphere to visit various places. My wings are relieved as we're liberated and able to fly with the help of jet streams carrying us over the ocean. I'm floating with my paper plane friends, no idea where we'll land. Time passes & we scatter off to different countries. We agree to inform each other about the interesting events we'll experience throughout our journeys & I'll tell the adventures of, to quote the FIRST Alumni Relations Manager Michelle Long, a phenomenal team, INTEGRA 3646; aka "the Yellows".

Just like my friends back in 2008, who have spread all over the world with the HAB method Samsung used, I have butterflies in my fuselage. Unlike them, I find myself in Turkey not in Germany. As I get closer, I see the Yellows mentoring the 58 FLL teams they formed due to their homework given by Dean Kamen who instilled the goal of spreading FIRST values. They've been toiling to introduce these terms to other students through presentations in hundreds of schools. They also initiated Jr. FLL in Turkey & established 8 new teams. I saw bright complexions while tutoring primary students in Scratch. They organized workshops where their STEM Kits taught children about the principles of science & built doll/birdhouses with them.

My next destination is Ankara, where educational legislature is held. Team 3646 is thrilled to receive "the first group of students ever to write curricula" title. These curricula include subjects focused on FIRST, STEM, UAVs & Robotics. They have their curricula approved by the Turkish Board of Education & Discipline, which can be taught in 11.000 schools to 5M students as elective lessons. Meanwhile, my plane friend #EducationFIRST informed me that 3646 created educational material resources as well. They also adapted these curricula to a Canadian school. 3646 welcomed Carlos Silverio Huerta Jimenez from Polytechnic University of Puebla, Mexico & PHI Makgoe, Member of the Executive Council in South Africa, & the 6th Premier of the Free State Sisi Ntombela in their lab as well. Curricula revisions were discussed to be implemented in those countries.

While I'm getting ready to move, I look upwards & spot a HAB which reminds me of the Yellows. They use these balloons to spread values such as Gracious Professionalism to make the world an airworthy place. To quote the founder of the Republic of Turkey, Ataturk "The future is in the skies.", they go beyond their limits in cooperation with the Turkish Air Force Command. They become partners in projects such as swarm coding & UAVs. I witnessed the excitement of 3646 when they had the chance to initiate a campaign with Esra Ozatay, the first female wing commander in the Turkish Air Forces, the only acroteam in the world that performs with 7 jet fighters.

One thing that attracts me is The Yellows who wear pink which symbolizes the potential power of girls. 3646 tries to help females make themselves heard in STEM-related areas. They start the campaign #Girls1stTurkiye aiming to show women how precious they are. The topic of this year's Young Diplomats Conference, an event they've been organizing for 5 years with participant students from 40 different cities, is Women in 21st Century. They're in cooperation with the Female Entrepreneur Association & took part in the International Mardin Women Symposium where 26 countries' representatives came together to make "girls" loud in such a place that girls miss the chance of equity. Having equal rights in education is what girls in Gaziantep also deserve. This strikes 3646 in the heart, and they teach coding to girls there.

Now I'm flying over the metropolitan city, Istanbul, full of gigantic billboards. I again notice 3646 on a LED screen as the guests of the highest-rated talk show of Turkey, Beyaz Show. They are applauded by the renowned people of Turkish society including Cem Seymen, Fatih Portakal, Emin Çapa, Do?a Rutkay & the news channel CNN which was a great opportunity to promote FIRST & their projects.

3646 motivates me to start aviating again. They're so active that whenever I see a community gathered for a STEM event, they pop out suddenly. They reached more than 3.000 people with the help of these events such as MakerFaire, FutureTalks & DigiGirlz. Besides showing that girls should make their voice heard in STEM, they also make it loud at Bett Show in London which is the biggest EdTech fair in the world. The Minister of Education of Azerbaijan Ceyhun Bayramov wants to meet the team & appreciates them on account of their curricula, so does a director of education from Kenya. In virtue of their efforts, one of their members had the honor of receiving an award from the President of the Turkish Republic, at a "glocal" festival, TeknoFest. They also receive the 2017 Leadership Award from the president of Macedonia, Corge Ivanov in the Global Leadership Forum.

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While wandering, a puppy named Kuyu crosses my path. He looks at me helplessly trapped in a 130 ft. deep well. Despite the efforts of the Disaster & Emergency Management Presidency, the poor puppy has been in unease for 12 days. On a cold February day, 3646 brainstorms & develops a robotic arm in a few hours. However, the puppy is heavier than expected. Luckily, Kuyu is being rescued with a replica of 3646's robotic arm. This moment helps them spread FIRST values to more than 300.000.000 people all around the world including J.K. Rowling & the director of the Stanford Robotics Lab Oussama Khatib. That's how FIRST helps them save a life. Due to this effort, the Yellows were awarded by Turkey's most widespread animal rights federation, HAYKONFED and Fuji TV from Japan shot a documentary about the story. However, it isn't the only story of theirs to touch a life. A two-year-old baby named Julen stumbles into a newly-built well. The Yellows think the robotic arm they designed would help them save the toddler. Luckily, they succeed in contacting Commander Andres in Spain & share the CAD design of the arm. Even though the story doesn't end well as Kuyu's, their attempt of using robotics as a mutual language is precious. With the same motive, they also visit kids with down syndrome in a rehabilitation center & help them learn mathematics with materials they cut out with CNC machines. They visit LOSEV where kids suffering leukemia get treated and entertain kids with the dollhouses they designed and made. Another rescue initiative is the diagnosis of Pectus. They developed a device to help doctors identify the level of the illness.

The Yellows have many partners who support them: Koc Holding, one of the most venerable companies & TOCEV, a foundation that toils to increase the rate of children literacy. I come across a 3646 event, Robothon, where students from top universities gather to accomplish tasks by coding. This event is organized in cooperation with one of their sponsors, Borusan Holding.

My next visits abroad include Japan, South Africa, Canada & Mexico and again I come across the Yellows. But why is 3646 so devoted? It is amazing that they reach out to Japan in addition to 15 FRC teams they established in their own country. In Japan, I witness 3646 forming a robotics team in a K12 school dedicated to girls, teaching them about mechanics. They are also guiding students from South Africa, Mexico & Canada to participate in FIRST tournaments by sharing their resources. Seeing them get in touch with Carol Edelman, FTC Partner Services Manager, to start FTC tournaments in their own country is also an esteemed initiative. Considering the slogan #FIRSTInspires, a book named "FIRST 101" is being published in which FIRST tournaments are explained extensively. Alumni of the team who are currently studying in prestigious universities such as Harvard, Stanford & MIT help them spread their projects as well as FIRST values. Today, many of them volunteer in the tournaments. This team also encourages the Rector of Bahcesehir University to become the first Turkish institution offering scholarship for FIRST alumni with \$40K per student which led them to be a Platinum Scholarship Provider in their 2nd year.

3646 endeavors to solve real life problems such as terror, the most severe of all. I see them working on a Bomb Disposal Robot in cooperation with the Police Department and their sponsor Yildiz Kalip, a worldwide reputable firm in the field of mold technology. In addition to their low-priced, fast & more effective Bomb Disposal Robot, they also focus on refugees by using model airplanes to detect border trespassers. The Turkish Armed Forces are the biggest supporters throughout the process.

A paper plane like me can track vehicles accurately. Now I spot the Mobile Science Museum 3646 designed, a truck that travelled 7,000 miles across Turkey, reaching 50,000 people. The stations in the Mobile Science Museum are all designed & produced by the members. Besides, 42 science museums have been opened in several cities thanks to their effort. Today, they are motivating FRC teams they have started & mentored to organize different workshops in the museum they established. They also designed drone labs due to the significant role of UAVs in the technology era and 14 schools benefited from these opportunities. Opening a drone lab in the Istanbul Aviation Museum & organizing workshops for soldiers must have been a sublime memory for the team.

At the end of my journey, here they are, 3646 again. I settle down on a students' shoulder wearing a yellow hoodie & see them smile. I feel gratitude from the bottom of my paper heart. These heroes are the ones who enabled me to be the paper plane that has a vision and a mission just like my family, Team 3646 INTEGRA.