

Chairman's Award - Team 6429

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2021 - Team 6429

Team Number

6429

Team Nickname

4th Dimension

Team Location

Bornova, Izmir - Turkey

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.

Since the establishment of 4D, we adopted FIRST values&STEAM education as the essentials of our vision. Thus, 92.8% of our alumni have chosen STEAM-based majors while 95.2% of 4D members plan to pursue a lifelong journey associated with STEAM. Through the principles that FIRST taught us, such as teamwork, Gracious Professionalism&innovation; 4D alumni got accepted to programs of the world's most prestigious universities including Stanford, Columbia, Brown, Berkeley, Manchester&Johns Hopkins.

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

Unusual circumstances always blow the start whistle to improve our community with unique methods. After an earthquake hit our hometown, 6429 took immediate action&partnered with AKUT&AFAD to help victims. Taking caution for possible situations, we held a 4DQuake Seminar with 260 people. Even in these unprecedented times, 4D brought a new dimension to "Science@Home" action by initiating the #OneDayOneExperiment movement in which we posted 65 experimental videos daily while having 15,798 views.

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?

4D became the FIRST Ambassadors worldwide&organized the world's first online FRC event Pre-Season with the participation of 31 teams from 6 countries. After the event, we sent feedback forms to the judges and gathered beneficial feedback from them. Then, we sent our analysis to FIRST and FYF. Besides, in our educational projects, we send various feedback forms to educators/teachers to measure the results of our projects. Thus, we make changes in our project to fulfill its full potential.

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

As the pioneers in our community, we created a digital art exhibit about the environment. 1,832 people visited our exhibit and became aware of pollution. Besides, our previous captain was awarded the Dean's List Finalist Award and got accepted to Stanford while many heard the name of FIRST for the first time from her interviews. Further, 6429 appeared at National Radio&Papers more than 100+ times to send a message for all the game-changers to wake their inner #ForceForChange.

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

4D established a Team Founding Mechanism by forming 20+, assisting/mentoring 270+ FIRST teams. We became the pathfinders of the Aegean with 800% growth compared to 2016. Plus, we started&sponsored 2 FLL&FLL Jr. teams formed with students from our project INSPIRE THE FUTURE. Bringing FTC to Turkey, we started the first active FTC team in Turkey, 15142&invited other FRC teams to join the FTC movement. 15142 attended Romania Championship&became the first FTC team to represent Turkey worldwide.

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?

To raise the future STEAM-Leaders, 4D introduced robotic education to 409 unprivileged kids via INSPIRE THE FUTURE and published&donated 14,329 copies of STEAMAGICIANS science booklets which are available in 10 languages and donated to all 7 regions of Turkey as well as Germany, France, Poland, Switzerland&UK. Besides, we held 9 STEAM conferences with the participation of 37 speakers&636 attendees via STEAMDays. Plus, we started 3 FLL teams with the kids from our projects.

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

As a team that applies STEAM values to reality, 6429 designed&produced HANDS-ON-STEAM kits, which include 3D printed materials, science booklets, and distributed 50+ kits to Mardin while partnering with the Netherlands Embassy and becoming a part of STEM For Sisters action. Moreover, 4D took immediate action for people in need&refugees in our country while implementing UNITED DIMENSIONS. We provide clothing&masks conducted with UN and Manisa&Izmir Provincial Directorate of Agriculture&Forestry.

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

6429 believes in equality in every dimension. Thus, we translated our STEAMAGICIANS booklets to Braille&distributed them while uploading sign language versions of the videos to Youtube. We added Arabic as the 3rd language (English, Turkish, Arabic) of our science magazine THE SCIENTIFIC DIMENSION to equalize the opportunities for refugees in Turkey. To further extend our impact area, we partnered with Arizona University and US Embassy to give STEAM education to 30 kids in Mardin.

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

Through 384 distinct documents, we have gathered data since our establishment. We keep the archives of our documents both as hard copies and digital copies. To sustain the progress, we created a platform for future 4D members with all kinds of information about our sustainable projects and our accomplishments via "Project Reports". With this mechanism, we guarantee the sustainability and efficiency of the initiatives we have been creating since 2016.

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

We categorize our sponsors into 3: platinum, gold&silver to show our professional relationships with our sponsors. We inform our partners about our yearly budget which is determined by SWOT analysis&proforma statements made by our Finance sub-team to keep our networks durable. Demonstrating gratitude&commitment to our sponsors, we include their logos on our t-shirts&promote them on social media. Moreover, at the end of each season, we send our sponsors plates to show them our appreciation.

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

Inspiring our community locally for years, we obliged to lengthen our impact area universally. Achieving our mission, we represented Turkey at IMAGINEERING FAIR in the UK. At the 2018 FIRST GLOBAL CHALLENGE, we proudly represented Turkey in Mexico and returned home with multiple awards. Plus, 4D established a "FIRST COMMUNITY" at Stanford&informed Silicon Valley about FIRST programs and became pioneers by introducing FIRST Scholarship to one of the world's best universities, Stanford.

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

4D empowers generations with the mission of FIRST through WELCOMEFIRST. 3441 kids got introduced to FIRST while encouraging school boards to form new FIRST teams. As the first FRC team in Aegean, we know the difficulties of being a rookie so we welcome every FIRST team by weekly ROOKIE TALKS. We shared our experiences with 60+ participants. Moreover, 4D hosts FLL ACADEMY in which experts give keynote presentations about each year's FLL theme. In 3 sessions, 214 FIRSTers widened their knowledge.

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 uploaded various videos to Youtube about 4D's both mechanical&managerial tips via ASK4D. Further, we have taken

an active role at Compass Alliance Call Center as the first representer of Turkey. Besides, we participated in the EcoFIRST movement by partnering with the Izmir Department of Waste Management. Moreover, thanks to our generous sponsor, we bought a CoderZ license to start online classes with 30 new faces for each class.

Essay

Am I the only one who thinks there is no planet B in this universe? Even though we acknowledge that humans will be the end of themselves hereafter, yet we continue to pollute our environment. We are fighting with each other to justify ourselves. Just because we think our opinion is right, we disregard others' beliefs. We keep discussing solving problems yet, we don't act. Before becoming a part of the 4th Dimension, I was not aware of my potential. In a moment, you will witness an extraordinary story of 26 visionary high school students discovering their potentials to become game-changers to inspire others.

Entering such an atmosphere for the first time, I didn't apprehend a lot of FRC&FIRST; however, since peer education is the backbone of 4D's sustainability, our alumni guided us with the principles of FIRST by ALUMNI DAYS. 4D alumni always opened their doors to newcomers, they taught us what truly "4th Dimension"&FIRST meant.

As the continuing flames of the fire that was ignited 5 years ago, just like our alumni, we continued to nurture the future with our projects. We gave 200+ workshops&lectures to unprivileged children. During our journey, we were in museums, schools, institutions, even factories. We have been in 14 places in 3 years to raise new generations with one of the requirements of the future, robotics. With Ev3&WeDo2.0 sets, we taught 409 children to INSPIRE THE FUTURE.

Spreading STEAM education more for every socioeconomic level, we co-organized SCIENCE CAMPS(SC) with BKD at HugoBoss. We have extended the impact area of SC by running 7 camps with MOSB, Ball&Mercan&reached out to 287 kids. Nonetheless, we were aware that going to institutions was not sufficient. We felt necessitated to change our community. We wanted to reach as numerous people as we can hence we applied our mentor's motto "Education starts with Educators" with TRAINING of TRAINERS. We partnered with Karsiyaka Municipality to hold workshops with 162 educators to apply "STEAM in Class".

While growing up, I engaged with science magazines which awoke my passion for science. We are trying to infuse the same perspective by publishing "STEAMagicians" booklets which include 10 experiment instructions&QR codes that lead to how-to-do videos. Not only did we distribute to all 7 regions of Turkey, but we also translated our booklets into 10 languages. We partnered with TURGOK to translate our booklets into Braille. Equalizing the opportunities for disabled people, we also provide a sign language version for experiment videos under the scope of SENSE OF SCIENCE. 14,329 booklets have been distributed&donated to 3 countries while 15,000 booklets await to be sent.

Breaking the gender bias, we traveled to school by school giving 4 GENDER EQUALITY FORUMS to 238 children with the guidance of strong&inspirational women from IZIKAD&Turkish Women's Union. Over and above that, we also produced 50 STEAM-kits called HANDS-ON-STEAM that constructed a bridge that connects 1447 km(Izmir to Mardin) to reach out to girls in a disadvantaged area in cooperation with Mardin Culture Association. Our project was a great addition to the STEMforSisters project led by the Netherlands Embassy, while our new kits are under construction.

Coming back to our question at the beginning, since we don't have a planet B as far as we know, we should protect what was loaned to us by our ancestors. You might ask, how exactly? 4D proudly answers this question with the project 4 COLORS OF 4D. Each year, we design&sell t-shirts(140+) based on 4 global phenomena: animal abuse, gender equality, inclusion&environment. %100 of our income(4196?) was donated to CYDD, TEMA, TURGOK&Sosyalben. This year, we extended our project by opening the 4D store on our website so that we can sell our t-shirt all around the globe. We aim to create a community without discrimination through the opportunities that FIRST provided to us. It doesn't only include gender equality, it includes welcoming anyone regardless of their disabilities or ethnicities. Solidifying this mindset, 4D partnered with TELESET to perform artworks using e-wastes with many kids who have Down Syndrome with TRASH TO CRAFT. Furthermore, we mentor the 734 HEROBOTS FLL team that consists of refugees&Turkish children. We became a part of the NextGenerationScience project which is carried out in partnership with the Global Mind Association, Germany&the Turkish Ministry of Youth&Sports.

Event after event, we understood the core values of FIRST&FRC. As a result, spreading the message of FIRST became the ultimate mission of every newcomer of 4D. We united with teams from the USA, Mexico&Ukraine to make this mission a reality. Total of 16 embassies, we introduced FIRST to 3441 children via WelcomeFIRST. In my country, there used to be no Turkish source for Spike Prime kits. Nevertheless, 4D created a source for all FLL teams to benefit from. We made Turkish tutorials&class content available for everyone. Our videos are under inspection on EBA TV.

Just after the 2020 Istanbul Regional, COVID-19 officially entered Turkey. Everything changed before we got used to it, but we showed that 6429 is not limited to any boundaries, even a global pandemic. Just after seven days of initial lockdown, we started the #FIRSTCallForCorona movement by inviting other FIRST teams to increase awareness about COVID-19. Afterward, our movement -which consists of 56 teams from 14 countries- was recognized by FIRST. As we adopt the new normals in an instant, we also produced&donated a total of 1504 touch-free sanitizers&face shields to 36 hospitals. Moreover, we wanted our followers to be as productive as they can, so we uploaded experiment videos to IGTV for 65 days continuously. 15,798 people viewed #OneDayOneExperiment.

Before joining 4D, I never thought I would be able to be the pioneer. I am proud to say that 4D organized the world's first completely online FRC event 2020 FRC Izmir Pre-Season. At first, it was a dream (organizing an off-season in Izmir). However, with the skills we gained from FIRST, we were able to hold such a groundbreaking event. We spent sleepless nights to fulfill everyone's expectations. We introduced many new faces to FIRST by inviting them as judges&giving them FRC judging workshops. 31 teams from 6 countries (16 rookies&15 veterans) took a part in Pre-Season. In our hometown, Izmir, an earthquake with a magnitude of 7.0 occurred just before a week of Pre-Season. We took immediate action to help the victims of the earthquake by volunteering with AFAD&AKUT. All in all, we were able to hold the Pre-Season without a major flaw. We embraced every opinion to approach our surroundings with an objective perspective to achieve something remarkable. Thus, we translated the feedback provided by the judges&participants of Pre-Season into English and sent them to FYF&FIRST, for them to use in the advancement of the upcoming online events. Even though we volunteered to help the earthquake victims, we realized that not enough awareness about earthquakes has been raised among our community. However, with the 4DQuake Seminars, 260 people became aware of how to act in life-or-death situations. We partnered with AFAD during these seminars. Unfortunately, the number of animal abuse&domestic violence is growing day by day in Turkey. At this point, silence was not an option for 4D. We gathered 14 FRC teams all around Turkey in the FRC MINISTRY OF VIOLENCE for weekly meetings to take action. Furthermore, we are in the process of sharing our ideas with UNDP. Another cataclysmic problem in our country is the lack of carrying for immigrant needs. We sell hygiene kits to fundraise our project UNITED DIMENSIONS. We partnered with Manisa&Izmir Agriculture and Forestry Directorate&the UN to undertake the hygiene&clothing needs of immigrants with the income we raised from kits. This project incipiently aims to redound immigrants&locals to the community by finding job opportunities, and we are proud to be a part of this tremendous act. Turning disadvantage into an advantage is our duty in these unprecedented times. We designed under&onwater robots to preserve the marine ecosystem. They aim to protect nature by cleaning debris&analyzing underwater life. Additionally, we are partnering with MSC to accomplish this project. Adopting Gracious Professionalism as a principle, we contacted hundreds of FLL teams while assisting 109&started 20+ FIRST teams. We networked with 425+ FRC teams while assisting 135+ of them. Furthermore, we networked with 60+ WRO teams via volunteering. Welcoming every FIRST team, we publicly share our documents in our open-source, which can be found by everyone via our website (frc6429.com). As we became the first FRC team in Aegean, we tried to reach every dimension by organizing the first online FRC event and we continue to be the pacesetters in our community as we established the first active FTC team in Turkey which represented Turkey for the first time in a championship. Additionally, we agreed with MARS Academy to make an FLL event in Azerbaijan&we contacted Frank Merrick to co-organize the 2022 FRC Izmir Regional after the COVID-19 pandemic. Promoting FIRST programs, we are partnering with several embassies to bring the FIRST spirit to their countries. As the game-changers of 5 years, we held 100+ online/physical events while having 5551 hours of volunteering in total. Leading the game, we broke the taboos&proved that a high schooler can make an impact that touches people's lives. All in all, 6429 became a platform for me to reach out to 17,664,406 people. I just wrote the tip of the iceberg of this journey but behind the scenes, it was full of sleepless days, full of great effort, full of becoming the pioneers to break down the social prejudices. It may sound like the end but our destiny has just started.

#EqualizeTheOpportunities #BeTheGameChanger

*All terms used in this essay strictly match with 2021 Chairman's Award definitions.