

## **FIRST Impact Award - Team 6429**

<b>2024 - Team 6429</b>
<b>Team Number</b>
<b>6429</b>
<b>Team Nickname</b>
4th Dimension
<b>Team Location</b>
BORNOVA, 35 - Türkiye
<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>
As an 8-year-old team, we are sure that being a part of the FIRST community changes a lot. FIRST, helped our members broaden their perspectives and become the leaders of tomorrow. With 100% of our team members planning to build a career in STEAM and 93.3% of our alumni choosing STEAM-based majors, it has been proven that FIRST has a huge impact on 4D's members. With the motto "education starts with educators" 4D aims to raise the STEAM leaders in our community by means of FIRST.
<b>Describe your community along with how your team addresses its unique opportunities and circumstances.</b>
As 4D, we primarily aim to increase accessibility to all communities. The ongoing economic crisis made it challenging to provide science education, but 4D took action! With Robocamp; we spread our knowledge 105 kilometers away by partnering with Izmir Municipality to educate children using SpikePrime sets, especially involving girls. In the 2023 earthquake, we sent 40 support packages to the affected regions and volunteered at a soup pantry, spreading solidarity and kindness in our community.
<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>
As 4D, we make sure that we spread FIRST through our projects. In the 4D Blog, we published articles related to STEAM. We scattered +31K copies of our science experiment booklets, STEAMAGICIANS. We assembled the IMPACT magazine, in which we share tales of inspiring young minds. To promote FIRST through art; we organized 4D EXHIBIT, an art competition combining fields of STEAM, inspiring +3000 visitors. So far, 6429 inspired +19 million people and is willing to inspire more.
<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>
4D knows that FIRST is more than a foundation and a competition. As leaders educated by FIRST, we are happy to be cited as role models on TV, radio & social media in Turkey. Not only to set an example in our community, we organized Experts4Youth gathering youngsters with experts in various fields,

introducing them to other role models. We spread our impact far away through our team captains, who started a club to educate students about FIRST at Stanford and gathered with FIRStatYALE at Yale.

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

Whenever a FIRST team needs assistance, 4D is ready to help! We organized FLL Academy, partnering with the Izmir Provincial Directorate of National Education, reaching out to 35 rookie FLL team members and teaming up 14 FLL&4 FLLJr clubs. We started Rookie Talks where we mentored FRC teams with our experiences and knowledge. We translated 22 FTC documents into Turkish, eliminating any barriers. We've also established our Team Founding Plan creating 21+ teams&assisting/mentoring 270 FIRST teams.

**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?**

With WELCOMEFIRST, we informed 2843 children studying in 38 different schools by inculcating FIRST expenses through seminars. 4D intends to inspire young minds and aid students in reaching their potential. In addition, by collaborating with the kindergarten in our school, we organized STEAMExplorers, introducing 80 preschoolers to STEAM. We emphasized the importance of recycling to children by tutoring them about how they can use their discharged materials at home.

**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**

4D organized the first FRC event in the Aegean Region, Off-Season with Izmir Municipality. We established&mentored a team for Izmir Municipality. Our enterprising mindset pushes us to always look for new collaborations. Thus, we held seminars with professionals to increase awareness on child labour in Gaziemir Municipality. We established EXPERTS4YOUTH collaborating with IZQ Entrepreneurship Center to provide 27 students with the knowledge they need to empower themselves on their career path.

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

To promote equity in our community, we organized Mother-Daughter STEAM Day and established STEAM For Girls. We cooperated with the University of Arizona and the Netherlands Embassy for our project, STEM FOR SISTERS. To overcome gender bias, we traveled to Mardin and gave Robotics & STEAM lessons to 60 female students. 4D can't allow any kind of inequity in the world. With STEAM Without Boundaries we fought against all kinds of discrimination and inspired 97 people in need of special education.

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

An eight-year career provides a significant documentation buildup. We keep our data, accomplishments, and graphics on Google Drive as well as in recycled paper copy archives so that we can process and preserve them. Additionally, we developed "Project Reports" to provide every necessary data. Our

alumni, youth mentors and veteran team members teach rookie members both in-person and online because as a team we believe in learning from each other to broaden our perspective and think uniquely.

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

In order to honor and motivate our sponsors, we introduced a policy that categorizes their beneficence: By defining our criteria and classifying them as Platinum, Gold, and Silver. Through open communication, we've let our sponsors know about our yearly budget and requirements. 4D attaches importance to acting company-like & uses effective business models. We used methods like SWOT analysis for this sincere communication. We also appreciate our sponsors by advertising them on our merchandise.

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

Financial security and independence are a must for a team, yet due to our country's unstable economy, we're facing challenging circumstances. The majority of our costs being based on USD creates pressure as our currency loses value constantly. We typically retain sincere ties with our sponsors through monthly reports and visits. Through strong media management and grant applications, we're doing our best to benefit from each opportunity. By recycling our robot parts, we're enhancing our budget.

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

Dear judges, you should visit our lab one day and feel the vibe here, it's called "home" for a reason. 4D crucially prioritizes the sense of community and benefits from its strong bonds with its members. We created a FIRST community at colleges with the help of our alumni, then took the step of introducing FIRST to Silicon Valley. We further spread FIRST around the globe through embassies under ConfigureFIRST. We're proud to say that we performed our mission of globalizing the values of FIRST.

**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.**

4D sees FIRST as not just a foundation, but a society to live in. We exclusively choose our members from people who are thrilled by the idea of becoming a part of society and willing to contribute to making it a better place. We've focused on making a sustainable environment and accordingly held projects like AGreenerDimension, TurningGreen, and EcoSeminars which were all designed to raise awareness. Our voice has gained power to the point where our works reached +19.105.763 people.

**Judge Feedback**

Who/When	Feedback
Mar 23, 2024 03:57:53 AM EST	<p><b>What type of unique approaches are there to teach STEAM? For us, it's 4DTHEATER. We used interactive elements to draw attention among the audience using VR headsets to provide a vivid learning chance combining theater&amp;technology.</b></p> <p><b>An area the team has an opportunity to improve.</b></p> <p><b>Something that really impressed the judges.</b></p>

## Essay

Long before history became the legend and the legends became a myth; a vessel of sinister power, the ring, wielded a corrupting influence, transforming its wearer into darkness. The sole purpose of the ring was to spread corruption into the world. To fight the forces of chaos, the Fellowship of the Dimensions (4th Dimension, 4D) sent three warriors: a courageous wizard, an ethereal elf, and a humble dwarf. Their purpose was to destroy the ring of chaos and bring peace to Middle Earth. The wizards would spread their wisdom through their magic of FIRST. Being the caring kind of all, elves were determined to help whoever came their way. However, the dwarves were the handiest of them all and doing their best to advance STEAM.

Before they set on a journey, the Fellowship organized HOMECOMING24, a celebration to convey wisdom among new members. Alumni of the Fellowship mentored the travelers by sharing their experiences. But when a fire has been lit and a table has been set, the Fellowship couldn't stop this insight from being inherited. Over the idea of "Education Starts With Educators", they reached +160 educators and organized MENTOR TRAININGS, guiding 6 mentors that would be mentors for future STEAM devotees. There were also newcomers at the table. With ROOKIETALKS, they taught the fundamentals of magic to +90 participants from 11 teams. A new spell has been introduced at the table with FLLSTEPS. Former FLL competitors within the Fellowship mentored 30 students from 3 FLL teams to enlighten their path which had been passed by them.

FIRST Impact / The Wizards Wizards were gifted with a strong knowledge of magic, they were capable of controlling powerful spells. As they commenced their journey, they illuminated the path they left behind by using their features to spread the message of FIRST while also safeguarding its principles through sorcery known as "Gracious Professionalism".

Knowing that magic was an instrument for spreading FIRST, they gave WELCOMEFIRST seminars where they collaborated with 34 embassies to educate 2843 children about FIRST's values&mission. As the first team in the Aegean Region, 4D learned from other fellowships from different backgrounds and established the first FTC team in their nation, 15142 Smyrna.

Proceeding with the expedition, they translated 22 FTC documents to Turkish intending to help FTC teams who seek guidance and with a spell called the "Internet" they uploaded them on their website and made it an open source while sharing the documents with Fikret Yuksel Foundation.

Another example where they utilized magic with this purpose was when they established FRCWORLDWIDE, an online group chat to strengthen communication among 33 FRC teams overseas, from Mexico to Turkey, USA to Brazil. FRC teams were able to solve the problems they faced with ease while learning from others. On the road, wizards stopped where they intuited the need for a helping hand. With FLL ACADEMY, they gathered experts with 35 teams and their mentors to lecture them about the impending season theme&tournament.

STEAM Education / The Dwarves Whilst saving Middle Earth by spreading STEAM Education, the trio came across a poor village near extinction. The dwarves knew that if they wanted the salvation of Middle Earth, they had to inform them about STEAM. As the first crew to turn STEM into STEAM, they started from the youngsters by organizing STEAM EXPLORERS where 100 preschool kids created music instruments from waste. They did their best, reaching as many children as they could by holding 4DOFLEARNING where they educated 1702 children from various socioeconomically disadvantaged

schools every week via LEGO sets. Moreover, they introduced TINKERCAD to 300 disadvantaged primary school students, laying the foundation for future engineers with CAD4KIDS.

Suddenly, the sky whispered: Crescendo. Dwarves were inspired by this voice and held two projects accordingly. Over eight years, with STEAMAGICIANS they sent +31k STEAM booklets that contained science experiments to schools that lacked STEAM education. Moreover, they sent 150 kits that include materials needed for these experiments, under the name HANDSONSTEAM. Dwarves increased its sustainability and introduced INTERNATIONAL STEAM NETWORK. QR codes that led to the experiments were sent to FRC&FTC teams around the world leading to a blast in the number of children reached.

For the dwarves, advancing gender equality was an exciting opportunity to continue the Middle Earth sisterhood. MOTHER-DAUGHTER STEAM DAY was a perfect point to start, gathering 20 mothers&daughters with STEAM workshops. Afterward, they reached 70 primary school girls, teaching them the programming language Scratch, with MECH4GIRLS.

When they heard a metropolis needed their help, they traveled across 105km just to establish ROBOCAMP. With the assistance of the local government&municipality, ROBOCAMP provided no-cost help to 30 girls from disadvantaged areas.

Not long after, they realized they had to address students with special needs and show that everyone could participate in FIRST. With STEAM WITHOUT BOUNDARIES, they reached 93 children with special needs, promoting parity in educational opportunities. Additionally, they arranged 7 TO 70, giving LEGO lectures to 186 elderly dementia patients&55 kids who can't attend school due to their health conditions. The trio was ecstatic about the impact they had on their community and wanted to help other settlements in Middle Earth. Advancing from the power social media holds, they put out SENSE OF SCIENCE experiment videos that reached +60k kids and enabled them to experience science at home. With dwarves' handiness and one drop of elves' inspiration potion, they published IMPACT Magazines. Speaking of success stories, and innovations in the field of engineering&sustainability, they reached and inspired 3782 people.

Before departing, dwarves still had a task to complete: instructing the instructors to inherit education between generations. They volunteered for the project of KOD'INCI and taught SPIKE Prime Python to 7 educators who are going to teach high schoolers.

Social Responsibility / The Elves Known for being the most generous creature, elves cared for others to create a better world. The elves' purposeful efforts took on new significance after the devastating 2023 Turkey Earthquake. They collected 40 boxes of hygienic clothes, baby diapers, wet wipes, and many other items and sent them to the affected regions. To stop history from repeating itself, the elves were determined to teach 260 people the dangers of earthquakes through 4DQUAKE Seminars.

For the sake of a united community, you need to start with the core of social interaction which is family. Through 4D AGAINST CHILD LABOUR symposium which was held at the conference hall of Gaziemir Municipality, elves were able to grant their loving&caring mindset about child labor with the help of lawyers&sociologists to 58 families.

The elves wanted to reach out to all generations, spreading their message about stopping violence

against creatures and establishing the MINISTRY OF VIOLENCE. Collaborating with 5 other FRC teams across the continent, they were able to reach 4503 people through the 7 informative webinars that they organized about bullying and cyber violence. To further aid their efforts on this hot topic, they organized CYBER SECURITY EDUCATION for 341 kids, strengthening the borders.

Elves' mission of guidance was never-ending as they shared their care for them with the MASTERS DIMENSION assisting 4542 adolescents, and providing career consulting by professionals in their fields. After many battles against the forces of the ring, the Fellowship was running out of energy. To teach the 350 children about using their sources efficiently, they founded 4DTALKS including a wide variety of topics about global problems&their solutions.

Interconnected global challenges needed interconnected solutions. Using one of art's marvelous branches, theater, they established 4DTHEATER. They created&acted plays to teach kids about women&animal rights, water conservation, and well-known artists. Through CERAMIC WORKSHOP we aided animal shelters by creating&donating food bowls made out of clay. With 4DBLOG, we made sure that we were spreading FIRST's impact through the power the internet holds and informed people about various topics like sustainability, technology&art.

The future comes with transformation and those who want to progress must adapt to new developments. An art competition, 4DEXHIBIT was founded by the elves, providing 75 children with the chance to design robots that tackle daily problems and offer solutions. Starting a new initiative, EXPERTS4YOUTH, they gathered 4 experts from distinct branches of STEAM and 27 children at the IZQ Entrepreneurship Center to help youngsters form a career path.

The Fellowship gathered together for one last resistance against the darkness. They gathered 26 FRC teams, 300 participants, 135 volunteers&more than 1000 visitors with the support of Izmir Municipality to fight against the ring. This battle, being the first FRC event ever in the Aegean Region, was known as the Izmir OFFSEASON and paved the path for the first Izmir Regional.

Aside from the 8-year-long journey that reached +19.105.763 lives and the impact it had on them, our trio has finally reached their destination. They threw the ring into the volcano and successfully ended the reign of chaos in Middle Earth. We're proud to say that the 4th Dimension has always believed in the effect of Crescendo, thinking wider and out of the box. They possess an unwavering determination, constantly trying to touch as many people's hearts as possible. As a team who truly understands IMPACT, we're a veracious ambassador and contributor of FIRST in our country and around the globe. We unlocked the global advancement of STEAM, benefiting not only our community but all communities worldwide. ;

