

DESTINATION:  
**DEEP  
SPACE**  
Presented By 

7539



**OUTREACH JOURNAL**

# INDEX

-  OUTREACH @ TEAM ELEVE8 01
-  AWARENESS INITIATIVES 02
-  FIRST KICKOFFS 07
-  COMMUNITY OUTREACH 13
-  INTERNATIONAL STUDENT EXCHANGE OUTREACH 16
-  INTERNATIONAL OUTREACH 19
-  FIRST COMPETITIONS 21
-  MENTORING TEACHERS FOR FIRST 24
-  MENTORING FIRST TEAMS 26
-  INTERACTIONS WITH CHANGEMAKERS 27
-  ACKNOWLEDGMENT LETTERS 29



1

## OUTREACH @ TEAM ELEVE8

Our name “Elev8” itself, inspires us to aim higher, and continuously improve our lives as well as the lives of the people around us. In a lot of ways, we believe our name gives us the power to work towards creating a sustainable platform for STEM and it is the power of this name that we have aimed to bring forth through all our actions as part of this team.

According to the National Science Foundation, 80% of the jobs in the next decade will require some form of math or science skills. In India, what we find is that children have the top quality talent to perform excellently in these fields, however, the exam-focused model of learning tends to act as a limiting factor for students when it comes to innovation, problem solving and creativity.

This is how FIRST has made a difference in our lives, by giving us the exposure to hands-on-learning, and skill building, and through Team Elev8 we aim to spread this to the world around us.

To us, spreading awareness is not only about giving a presentation, or distributing pamphlets. If you pick up a pamphlet, or listen to a presentation that tells you about how amazing FIRST programs are, what do you do? How do you get involved? Team Elev8 wants to focus on giving students the answers to these questions. We want to work towards moving beyond the short term, this is the basis of our outreach philosophy, which is driven by our Vision statement

“We seek to inspire the next generation of great minds by cultivating an appreciation of science, technology, engineering and math and become leaders of tomorrow. The goal is to build a society of STEAM leaders by focusing on hands-on education, by breaking gender and class stereotypes, and bridging cultures to develop a united, technology driven world.”

Through our outreach we have reached out to, various stakeholders such as students, teachers, schools, government bodies, the differently abled, and other teams, not only in our own country but across borders. These are the main constituents who help us in driving forward our agenda of spreading STEM awareness. Our outreaches have focused towards empowering all these members of society. With 2000+ constructive hours put into outreach, in our very first year itself, we at team Elev8 are not willing to let our position as a rookie team hold us back.



2

## AWARENESS INITIATIVES

### Nehru Science Center @ Global Science Week

**Event:**

FIRST kickoff at Nehru Science Center, India's largest interactive science center.

**Purpose:**

To spread awareness of FIRST programs, and encourage participation in FIRST events.

**When:**

18<sup>th</sup> October, 2018

**Where:**

Nehru Science Center

For Global Science week, we were invited to host the the FIRST kickoff, which was done to spread awareness of the FIRST program, and events. 200 students from various schools, across Mumbai attended this event. These students found the hands on experience of building Lego robots, most enriching.





## Eldrok Conference for Heads of Schools

### Event:

Eldrok India K-12 Summit

### When:

26<sup>th</sup> September 2018

### Purpose:

To spread awareness of FIRST among teachers and principals of schools in Mumbai.

### Where:

The Leela, Mumbai

We participated in the Eldrok Summit, an event for teachers and principals from schools across Mumbai to come together and look at new activities they can hold in their schools. Two of our team members along with two from team 6024 attended the summit with the goal of getting as many schools to participate in the upcoming FLL competition and start robotics programs in their school. We personally spoke to about 50 teachers, educating them about FIRST. We were also given the opportunity to present and share our experiences with the audience.

This event was a great way to connect directly with schools and helped us spread awareness of FIRST and our teams in Mumbai. We have been able to contact them for our numerous events and this has helped out in making future events and Kickoffs possible.



## DAIS Fete

### Event:

CAS Fete Outreach

### Purpose:

Creating awareness of Team ELEV8 within our school community, to enlist more team members in the future, and raise money to use for further outreaches.

### When:

11<sup>th</sup> January 2019,

### Where:

Dhirubhai Ambani International School

The CAS fete is an annual event at the Dhirubhai Ambani International School, where in students from grades 11-12 put up stalls to sell merchandise and play games in order to raise money for NGOs and help them. At our Elev8 stall we sold team t-shirts, badges and mugs as well as conducted games such as Robo-Soccer and Drone Flying, which many people played, helping us raise money for the outreach.

We earned Rs.14,000 through the various games played. Our stall was always full, and people kept coming back to our stall to understand more. Our games were very popular amongst the kids!

Our stall was visited by Mr. Hrithik Roshan, a lead Bollywood actor and Mr. Arnab Goswami, one of the





most renowned News Reporters of the nation. They were extremely impressed by our work and community outreach, and even enjoyed a game of Robo-Soccer!

Our message was retweeted by Mr. Roshan, and this helped us reach out to many more people.



## Interactions with Jerry Ross, astronaut and record holder for the most space flights

### Event:

Interaction with Jerry Ross.

### When:

17<sup>th</sup> January 2019

### Purpose:

To spread awareness of our team and FIRST, globally, as well as learn more about the theme “Deep Space”

### Where:

Dhirubhai Ambani International School

The Cultural Affairs Department and the US Consulate General Mumbai collaborated with Dhirubhai Ambani International School and Purdue University for the visit of eminent NASA astronaut, Col. Jerry Ross, a retired United States Air Force officer and a former NASA astronaut. He is a veteran of seven Space Shuttle missions, making him the joint record holder for most spaceflights. In addition to his record number of launches, among personal milestones Ross held the U.S. record for spacewalks (9) until that was surpassed by the current record holder. He told us about his experiences and the goals and missions of each of them. He also taught us important lessons through anecdotes of the struggles and difficulties he faced. This interaction made us realise the cascading sea of opportunities available in the field of STEM, and it also gave us a deep insight into the theme of Deep Space.







# 3

## FIRST KICKOFFS

### The LAUNCH AT DAIS

#### Event:

FLL Kickoff organised by Team Elev8 and Team R-factor.

#### Purpose:

To spread STEM across the community by introducing FIRST Lego League to children of ages 9-14 from various schools in Mumbai and to encourage their participation by giving them a hands on learning experience.

#### When:

28<sup>th</sup> October 2018

#### Where:

Dhirubhai Ambani International School.

The Launch was an FLL Kickoff event that we hosted at the Dhirubhai Ambani International School. Over 200 students attended this event, making it a huge success. We educated the teams about FLL 2019, its mission and different strategies.

Students were divided into teams of 4 and guided towards ideating a strategy to design a robot. They were also asked to pick 5 missions that they would like to try. Their designs were exceptional.





With a range of EV3s and NXTs, along with instructions, each team had 35 minutes to build their robot from scratch. After construction and the downloading of the code, the robots were ready to run.

At the end of the day this event was a success in every way possible. We had inspired 200 students to pursue STEM education and robotics. The highlight of the event was the participation of students from the Sankalp Shiksha NGO, which works for students with hearing disabilities. This outreach focussed more on the technical and robot run part of the FLL competition.



## 'MISSION MARS' AT THE AMERICAN SCHOOL OF BOMBAY

**Event:**  
FLL Kickoff

**When:**  
21<sup>st</sup> October 2018

**Purpose:**  
To encourage participation in FLL competition via a design and thinking workshop

**Where:**  
American School of Bombay

John Killbane, the mentor of Team Pangea, conducted a design and thinking workshop, to introduce the Deep Space challenge of FLL. Children addressed the challenge innovatively, coming up with practical solutions to the posed challenges. The models they built were reflective of the creativity and design skills that the children had employed in their work. They were excited to enroll in the FLL competition, and some of them ended up participating in the Regionals. This too was a successful event.





## 'THE LAUNCH' AT GOA

**Event:**  
FLL Kickoff

**Purpose:**  
To spread awareness of FIRST programs.

**When:**  
3<sup>rd</sup> November 2018

**Where:**  
CIBA office, Punji.

'The Launch' at Goa was a huge event that we conducted in Goa, in collaboration with the robotics group of Goa and the Government of Goa. Our team members along with a mentor travelled to Goa for this event which had participation of more than 200 children from various schools across Goa.

Here, we conducted a design thinking and practical robot building workshop. The Education Minister of Goa attended this event and was highly interested in knowing more about FIRST and how he could implement FIRST programs in schools across Goa.

One of the highlights was that a group of students from this kickoff, went on to participate in the Western regionals FLL competition, winning the Core Value awards.



## 'THE LAUNCH" AT INDONESIA SWA

### Event:

Indonesia Outreach

### Purpose:

Adding an international dimension to our outreach events, and working towards creating a sustainable STEM environment in other countries as well.

### When:

19<sup>th</sup> - 23<sup>rd</sup> January.

### Where:

Sinarmas World Academy, Indonesia.

Team Elev8 got the opportunity of hosting an outreach at Sinarmas World Academy, one of the most renowned schools in Indonesia. "The Launch" at the Sinarmas World Academy was a very different outreach event compared to our other events. We got to visit the enormously beautiful campus of the school. We introduced FRC to the students. Since the students were already familiar with the FLL "Into the Orbit" theme, we decided to host a RoboSoccer competition.

The students varied from grades between 4th and 12th. We saw a lot of new innovative ideas from these students who found the experience of constructing and programming most enriching. In accordance with the actual FRC, we conglomerated two teams into one alliance and made two alliances play against each other. The event was hugely popular and all the school teachers were eager to know more about FIRST and how they could integrate the same in their school curricula. The most important and the best part of this event is that SWA will soon start their own FRC team.





## "THE LAUNCH" AT CREATIVE KIDS, JAKARTA, INDONESIA

**Event:**  
FIRST Camp

**Purpose:**  
To start an FRC team in Indonesia.

**When:**  
22<sup>nd</sup> January 2019

**Where:**  
Indonesia.

This awareness camp was our first international event conducted outside India. Our target was to promote FRC across the STEM fraternity in Jakarta. Our audience comprised of students and their parents who are already a part of FLL and they were looking for the next step forward.

The event began with our team members explaining FRC and the impact of the program on students. Our team interacted with parents who were very inquisitive about FRC. We explained them the time commitment, infrastructure requirement and the fruits that it bears to participate in FRC. The robot run was the most exciting part of the day, and teams lined up, excited to see their robots at work. We held league matches with alliances. The entire match process was very energetic with one goal hyping up the entire soccer table.

We received great response from the students, parents and the team at Creative Kids. It was an amazing experience and it will be a worthwhile moment to look back on. We are certain that they will initiate an FRC team next season.







## 4

## COMMUNITY OUTREACH

### GIRLS OUTREACH AS PART OF WOMAN'S DAY

#### Event:

Overview of what makes an FRC Team Work.

#### When:

8<sup>th</sup> March 2019

#### Purpose:

To inspire young girls to participate in STEM activities.

#### Where:

Our workspace at Dhirubhai Ambani International School.

We conducted an outreach amongst girls from grades 1-4, to work towards our goal of making the field of STEM, a girl-friendly environment, at our school. This outreach meant a lot to us as we were finally showing the fruit of our hard work to none other than the juniors of our own school. We introduced them to our robot, and explained the basic concepts to them, such as the wiring and working of motors. The children had a lot of questions which varied from what code is used for the robot to whether it has a name, and it was a very interactive session.

We explained our deep space challenge, and their jaws dropped when they saw our robot in action, shooting cargo and securing it with the hatch panels. Several of them were already interested in pursuing FIRST events like FLL and FTC. We also invited children from Sankalp Shikshan Sanstha to see our robot, and they were equally excited to learn about our robot and journey.



## NGOs

### Event:

Outreach to the rag-picker children of Dharavi, Asia's largest slum.

### Purpose:

Introducing underprivileged children of ages 9-15 to FIRST and STEM.

### When:

23<sup>rd</sup> February 2019

### Where:

Acorn Foundation, Dharavi

The Dharavi Outreach was an 'Introduction to Robotics' event that was hosted at the Acorn Foundation centre. This was one of the most important events as it gave us the opportunity to teach the children vital skills which could potentially mould their future.

Over the course of several weekends, devoted to giving the children an enriching experience to build Lego robots, we formed strong bonds with these children. These children came up with innovative ideas. They used ingenious techniques to recycle material used to make the robot.





## DIFFERENTLY ABLED STUDENTS

At the FLL western regionals hosted this year in Mount Litera School, Mumbai sponsored by Team R-Factor #6024, and us, Team ELEV8 #7539, we interacted with team 'Rockets', the team from Sankalp, an institution for the hearing disabled. Two teams from the institution participated this year, with help from our volunteers, and mentorship and guidance from Team R-Factor and our team.

The two teams were very enthusiastic and excited about the competition, and in our conversation we learned that they were most excited by the incredible bot they had made to complete this year's missions of Deep Space. Their enthusiasm and active participation inspired all the other teams, mentors and volunteers at FLL Western regionals, Mumbai, this year.

### Event:

Outreach at Sankalp.

### When:

22<sup>nd</sup> February, 2019

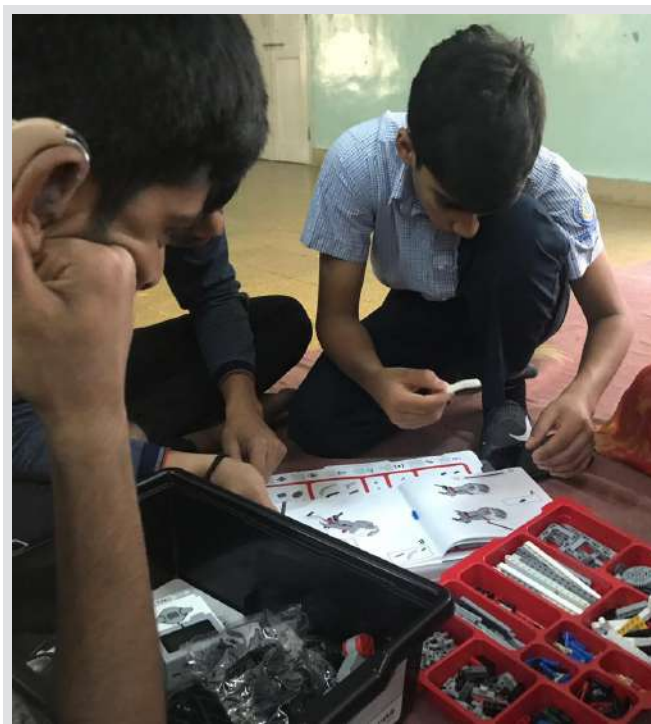
### Purpose:

To introduce STEM and FIRST through all strata of society to equip the future.

### Where:

Sankalp Shikshan Sanstha.

The Sankalp Shikshan Sanstha Outreach event was an 'Introduction to Robotics, event that was hosted at the Sankalp Shikshan Sanstha in Matunga. This was a huge learning experience for us. We overcame the challenges of communication and were successful in building bonds with these children. At the FLL National Western Regionals, one of the teams won the core values award and our joy knew no bounds.





5

## INTERNATIONAL STUDENT EXCHANGE OUTREACH

We have, at our school, students visiting from various nations. We used this as an outreach opportunity to educate these students about FIRST and FRC, by demonstrating our robot and offered them hands on experiences in robot building. Each of these international outreach events were highly popular, and left the participants, asking for more.

### CHINESE EXCHANGE

#### Event:

Outreach Event with Chinese students from Shenzhen (Nanshan) Concord College Of Sino-Canada.

#### Purpose:

To add an international dimension to our outreach program, and encourage them to explore FIRST programs in their own school.

#### When:

22<sup>nd</sup> January 2019

#### Where:

Dhirubhai Ambani International School.





## FRENCH EXCHANGE

### Event:

Outreach event with French Exchange Students from Ermitage International School.

### Purpose:

To add an international dimension to our outreach program, and encourage the students to participate in FIRST programs in their own school.

### When:

6<sup>th</sup> March 2019

### Where:

Dhirubhai Ambani International School.





## GERMAN EXCHANGE

### Event:

Outreach event with German exchange students.

### Purpose:

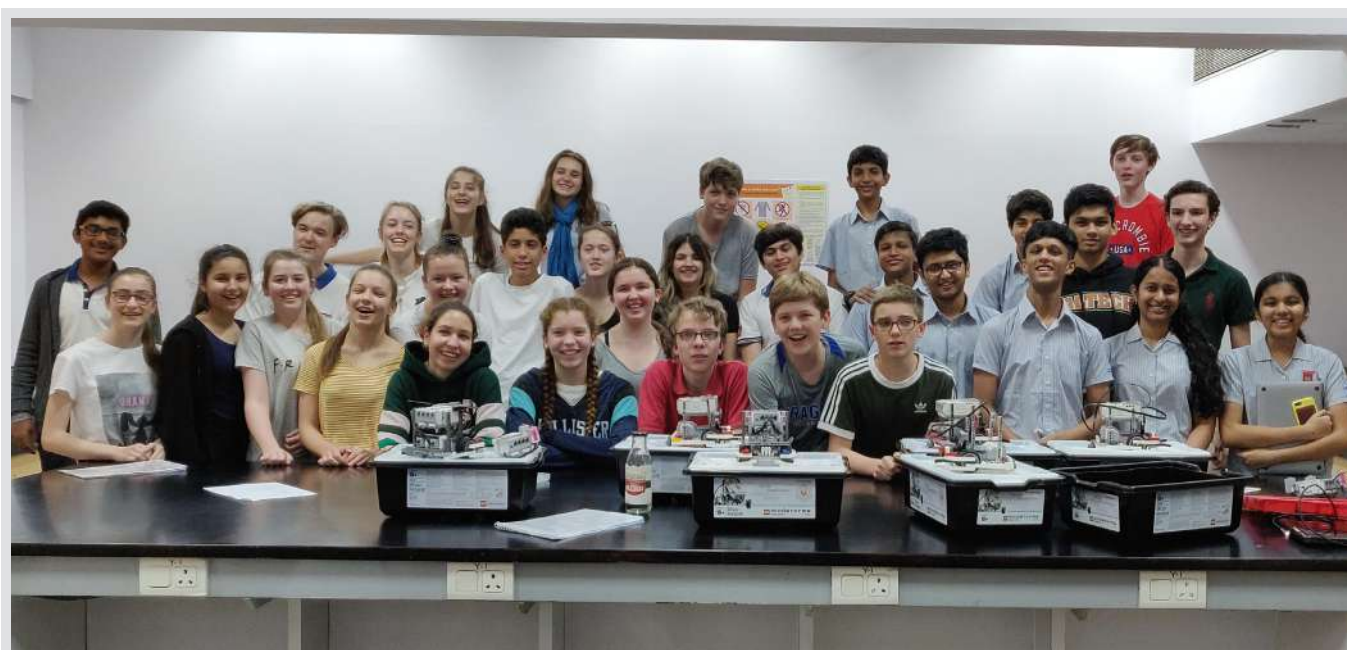
To add an international dimension to our outreach program, and encourage the students to participate in FIRST programs in their own school.

### When:

29<sup>th</sup> January 2019

### Where:

Dhirubhai Ambani International School





## 6

## INTERNATIONAL OUTREACH

### THE INTERNATIONAL SPORTS FEST

#### Event:

The International Sports Fest Launch - 'The Launch'

#### When:

17<sup>th</sup> December 2018

#### Purpose:

To spread FIRST awareness globally, by interacting with students of over 10 nationalities, and from schools all around the world.

#### Where:

Dhirubhai Ambani International School

#### Countries:

South Korea, Japan, UK, Germany, France, Oman, Dubai, Sri Lanka, Kenya

At the International Sports Fest, 'The Launch', was an FLL Kickoff event that we hosted at Dhirubhai Ambani International School. The participants comprised of 154 student-athletes ranging across 9 different countries, representing 3 continents.

The event was a great introduction of FIRST to the children of various nations, giving them an experience of building robots, most of whom who were doing it for the first time. The joy on their faces, after their robot runs, was heartwarming.







## 7 FIRST COMPETITIONS

### FLL NATIONAL WESTERN AND NORTHERN REGION CHAMPIONSHIPS

**Event:**

FLL Western Regionals 2019.

**Purpose:**

As associate sponsors, our aim was to spread awareness of Team Elev8 and help expand the FIRST community in India.

**When:**

13<sup>th</sup> January 2019

**Where:**

Mount Litera International School, Mumbai and Manav Rachna International School, Faridabad.

The FLL kickoffs organised at the Nehru Science Centre, The American School Of Bombay and Dhirubhai Ambani International School finally lead down to this moment. It was the most important event of the season, and our previous outreach events were conducted to give the children a deep insight on what this event would finally be like, giving them opportunities to find their passions.

The event was spread across two days. One for the three presentations - Robot Design Executive Summary, Project and Core Values, and one for the final robot run.

We spent our time talking to the different teams taking part, understanding the principle of their robots





and the problems they think astronauts face with long distance space travel. We spoke to them about FLL, how the competition was going for them and what they learned from the process. We understood some of the values they learnt, with some recurring ideals like teamwork, cooperation and time management. Everyone was very excited, not only for the Robot Runs, but also their presentation and Core Values. We also conducted formal interviews and saw many familiar faces - these were children who had attended 'The Launch' and were inspired to form their own FLL teams and participate in this wonderful event.

We had mentored and sponsored "Team Rocket" from Sankalp Shiksha, an NGO that works for children with hearing disabilities, which took part in the Western Regionals. We were proud to see them win the 'Core Values' accolade.





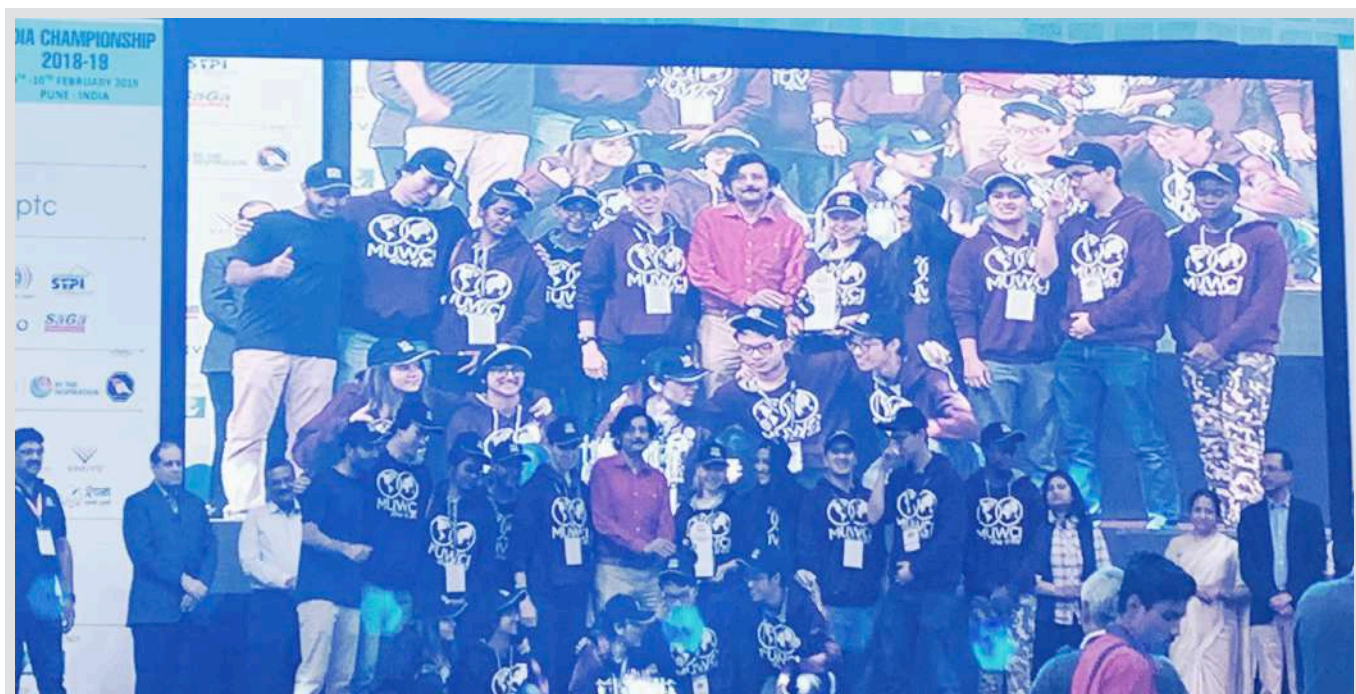
## FTC NATIONAL CHAMPIONSHIP

**Event:**  
FTC National Championship

**Purpose:**  
As associate sponsors, our aim was to spread awareness of Team Elev8 and help expand the FIRST community in India.

**When:**  
24<sup>th</sup> - 25<sup>th</sup> February, 2019

**Where:**  
Balevadi, Pune







## 8

# MENTORING TEACHERS FOR FIRST

## TEACHER TRAINING IN GOA

### Event:

FIRST Teacher Training

### When:

16<sup>th</sup> February, 2019

### Purpose:

Creating a sustainable STEM Environment by training teachers who could then mentor more students for FIRST programs.

### Where:

CIBA, Goa

We conducted a Teacher training session, with Lego Mindstorms in Goa, as part of a collaborative initiative between the Goan Government and Team Elev8. Additionally, they have purchased 5 Ev3 kits, via our team, with a promise to form more FLL teams in the next few months. Another teacher training has already been planned, in the month of September. Overall, 15+ hours of teacher training was conducted.





## TEACHER TRAINING IN ARAVALLY, GUJARAT

### Event:

FIRST Teacher Training

### When:

21<sup>st</sup> February, 2019

### Purpose:

Creating a sustainable STEM Environment

### Where:

Aravali, Gujarat

We worked with the Gujarat Government to help 200 teachers from government schools learn how to do scratch programming. More importantly, all the teachers are part of scheduled tribes and this was their first experience in the field of robotics. The projected outreach is that each teacher will now go ahead and teach 20 students, creating a sustainable environment, and encouraging technology proficiency in rural areas.







## 9

## MENTORING FIRST TEAMS

Over the season, Team Elev8 has mentored 8 FLL Teams, 5 Junior FLL teams and 2 FTC Teams. One of the teams we mentored was from Sankalp Shikshan Sanstha, a school for the hearing impaired. These experiences acted as eye openers and we realised that there's always something to learn, whether you're the mentor or the student. We were able to help them whenever they have technical doubts, and we learnt so much from the teams' core values and brainstorming sessions.





## 10 INTERACTIONS WITH CHANGEMAKERS

### Mr. Suresh Prabhu, MP, Minister of Commerce & Industry, and Civil Aviation

**Event:**

Bombay Stock Exchange Bull Run

**When:**

13<sup>th</sup> January, 2019

**Purpose:**

To receive government support to promote STEM and FIRST

**Where:**

Bandra Kurla Complex, Mumbai

In order to promote our efforts in a holistic manner, we knew that it would be crucial to reach out to government officials and receive support from them for our efforts. We were invited for the annual Bombay Stock Exchange Bull Run, an annual 10 kilometer run conducted by BSE.

This event was attended by Mr. Suresh Prabhu, Member of Parliament, Minister of Commerce & Industry, and Civil Aviation. Heads of various corporate firms were also participating in the run, and we got the opportunity to present FIRST and Team ELEV8's, FRC journey to this esteemed audience.



## INFOSYS FOUNDATION DAY CELEBRATION

### Event:

Infosys Award Ceremony

### When:

5<sup>th</sup> January, 2019

### Purpose:

To promote FRC Team Elev8.

### Where:

The Taj, Bangalore

Our team had the privilege of being invited to the prestigious Infosys Award Ceremony in Bangalore. Here, we received the opportunity to interact with some of the brightest minds in the country, such as Narayana Murthy, Nobel Laureate Amartya Sen, Princeton's R Brandon Fradd professor of mathematics Manjul Bhargava and Professor Kavita Singh to mention a few. We were successfully able to spread awareness about our team and its FRC journey.

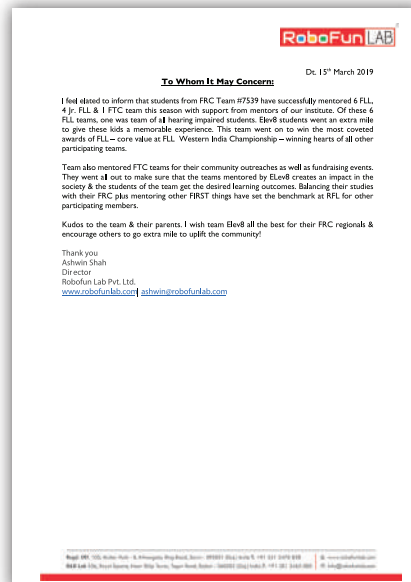
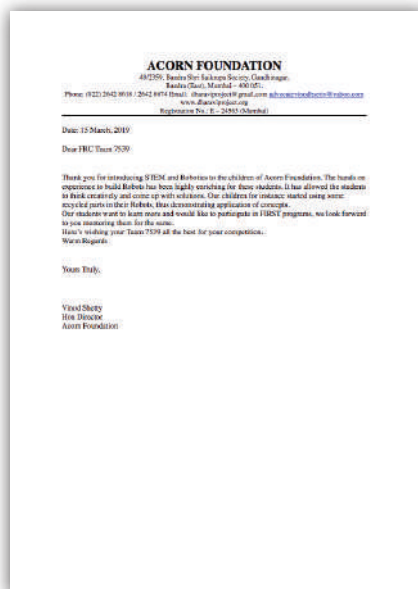






11

# ACKNOWLEDGMENT LETTERS



# SPONSORSHIP MEETINGS

Mr. Nimesh Kampani



Mr. Manish Maker



Mr. Narotam Sekhsaria



M. Rajesh Doshi



Mr. Akash Bhansali



Mr. Arnav Mitra



Mr. Viral Shah



Mr. Gautam Narayan



Mr. Nimish Arora



Mr. Prashant Gupta



Mr. Vivek Tibrewala





DESTINATION:  
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Presented By  **BOEING**



**DHIRUBHAI AMBANI  
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**TEAM #7539**



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