

For the last 15 years, we've been building our airship, named *INSPIRATION*. It is a machine that transcends the team, an instrument made not of metal and motors, but of people and actions. To build Airship *INSPIRATION*, we placed its gears, added fuel and set it in motion.

Fuel

The fuel for the *INSPIRATION* is what moves us. Our team believes that if you have been inspired by someone to grow and learn with passion, you should repay that by spreading your passion to someone else. As a team we want to build a truly human machine of inspiration, teaching others what we have been taught and inspiring them to do the same to their community.

Seeing the increase in people enjoying STEM and how it can change their lives serve us as fuel. Some things as the fact that 100% of our mentors are team alumni and that they embody the FIRST mission, fuels us to do more.

1156 aims to instigate technological growth on our community by working as an example of how the passion for STEM has fueled us. We can proudly say that our school is looked upon as a role model for how educational robotics should be done, having the first of many educational robotics programs on the region. We are setting the course for this voyage for our country by showing how with apparatus as simple as LEGOs you can build much bigger ones, capable of changing lives.

Gears

To keep the airship flying and taking altitude, all its gears must be aligned and synchronized. Each action we take is a gear on the airship's system. We put gears in motion at our school creating an electrical kart competition, which consists of student groups building their own karts in a limited period, using the same components used in FRC, inspiring them to join STEM.

In order to spread STEM in our community, we took part at the 3rd Science Popularization Fair, that encourages students to join Engineering, to present FRC for 1,200 school students at Unisinos, one of the main universities of the state. FRC demonstrations were performed in 11 big events fueling over 11,302 people towards STEM.

In 2016 we made FIRST loud! At the reception of the Olympic Flame in our city, 1156 didn't miss the chance to present robotics to the world. Our 2016 robot was displayed there, attracting media and people's attention to robotics. This event resulted in a post featuring a picture of our robot on the official twitter account of Rio 2016, which has over 600,000 followers. We also presented FRC in the world's biggest professional education fair, Worldskills. The fair had competitors from 62 countries and more than 250,000 visitors. There we assisted the FLL Festival as volunteers and lectured on how to start an FRC team, entrepreneurship and team management.

A Brazilian FRC team came to our lab on the winter vacation to learn how we manage resources, time and people during the season. An Israeli school from our state that is starting to implement educational robotics visited our lab to learn everything about our

program. We introduced them to FLL and FRC and got them in contact with Israeli FRC teams.

1156's FLL project is based on mentoring and creating new teams, training judges and assisting regionals. Our partnership with John Deere opened the door for assisting the creation of 4 new FLL teams, being one of them the first team in Brazil to be sponsored by John Deere. We've also organized a 1-day program to mentor new FLL teams from other cities. This program teaches FLL teams strategy, design and programming.

1156 has a commitment with FLL consolidation in Brazil. Since 2006 we have been assisting all FLL regionals in our state and we have already traveled 140,400 man-miles to volunteer in FLL events in the country. Each of those events we attend are gears to influence more people to pursue the STEM path.

Since 2014, 1156 hosts an event to all South Brazilian FLL teams classified to Nationals, in order to provide additional training. We simulate an event with official judges and give lectures. This year we ran and hosted an unofficial FLL tournament open for all teams, which emulates a regional with the objective to get teams together to practice and share their experiences.

Through humane actions 1156 is able to inspire our community for STEM and a better future. We changed lives by assisting an organization that helps children with cancer, hosting a fundraiser with a local restaurant. Kids can be inspired with games, like a FIRST version of CLUE to teach them about FIRST values or with LEGO kits, developed by our members. Totally, in the last 5 years, we performed 1,300 hours of volunteer work. With those actions we aid in the learning process of kids that are falling behind from being away from school.

An important gear in our mechanism is the engagement with our community, taking our work out of the lab. We took on the DOW challenge to propose a solution to a world's problem and spreading it to the community, winning the challenge with more than 4000 votes, highlighting our engagement on social media. We were invited by a national TV channel in to participate in their program showcasing educational robotics. Our gears have been featured in the largest news site from Brazil, in several TV programs and newspapers. Through that we show the success of our inspiration machine to community, that has already reached people over 21,000,000 times.

Airship INSPIRATION

Since the implementation of FLL in Brazil, there has been 3 official operators of the category on the country. 1156 has always had a close relationship with each one. The only link between all the operators, and one of the responsables behind their successful transitions, was 1156. When SESI, the current Operator, took the role, they invited us to a meeting so we could act as their counselors on leading this huge FIRST category. That's why 1156 plays a crucial role on the FLL development in Brazil, opening doors for inspiring thousands of kids about engineering.

After years running big events, our team became aware that if we want to impact the most people as possible through STEM, we would have to create events, establish them well, and make them independent. This way, we started to create processes on our big events and

to teach other people how to do the tasks that were being performed by us. Under these circumstances we were able to set up huge events and keep them running without the need for our direct assistance, thus allowing us to focus on creating new events with different target audiences, and as a result impacting and inspiring more people.

This is what we did at MOSTRATEC, the largest science fair of Latin America: we ran the robotics area of MOSTRATEC for 4 years in a row, where we also set up the first Drone Challenge in Brazil. There, over 30,000 people got in contact with robotics annually. In 2016, for the first time the activities in this area could happen without our direct aid and kept impacting the same number of people.

All this work also allowed us to shift our focus and reach the milestone of helping on the organization, volunteering and presenting FRC on the biggest robotics competition from our state, promoted by our school network. The event had the participation of 90 teams. 1156 knows how great FIRST competitions work, therefore we oriented the organization committee to create a event inspired in FLL, though 90% cheaper in order to take robotics to the largest possible number of kids. The event was located on one of the main particular universities of our state, PUCRS, where the students could not only compete, but also get to know a notorious university and get inspired on following an academic path.

Last year in our Chairman's essay we wrote that we were "thinking globally, while acting locally". However, after seeing all the wonderful results we were getting in our country, we noticed that just acting locally wasn't enough for us. We decided that it was time to start acting globally and flying our Airship to new horizons.

1156 sent emails to all rookie teams inviting them to hangouts in order to help with any doubt they might had. We talked to teams from all over the world like USA, Australia and Mexico. We have also introduced FIRST to Chilean interchangers in our school, encouraging them to join both FLL and FRC, since those programs are already present in their country.

In 2017 we had the opportunity of helping the implementation of FIRST in a whole new country, Uruguay. We traveled over 520 miles by car to volunteer on the first FIRST event in the country, an FLL regional. Uruguay has a plan called "Plan Ceibal" that aims to deliver technological education to all students of the country. This plan already provided 1 notebook for every student in the country. We see it as a huge opportunity of establishing FIRST there and inspiring thousands of students to join STEM.

1156 went to meetings with Plan Ceibal's Director to expand their knowledge about FIRST and FRC, inspiring them to plan the beginning of FRC in Uruguay with us, having at least one active team in 2018. We also hosted her and one of the champions team from the Uruguayan FLL regional in our city, where they could learn more about FLL and witness an FRC building season during 3 days, thus getting inspired by our work and continuing to inspire all the other 29 uruguayan teams.

This year, 1156 completes 15 years of inspiration and our Airship is prepared to fly to new challenges. Our mission is to inspire people to build better futures through STEM and we have accomplished part of it when we introduced FIRST in Uruguay and established FLL in Brazil. We still have a long flight to achieve the total recognition of science in developing countries, but we know the power STEM has on improving futures. We will keep taking the Airship *INSPIRATION* to different nations and communities, reaching thousands of people and changing lives.

OVERALL