

# Introduction

As the AdamBots, we lead, we collaborate, we dream of a better future. We are learners, teachers, and future innovators. We inspire leaders and we aspire to be leaders. On our team, FRC isn't just a robotics competition; it's a cultural movement. We aim to excite and inspire students to become the ones who drive the future of STEM. We maintain an extremely high GPA average and excel in honors and AP classes. We are the AdamBots: an inspiring learning environment dedicated to building a global *FIRST* community.

## Our Youth STEM Programs

As AdamBots, we inspire the next generation of leaders and innovators. Our volunteering efforts within the *FIRST* progression impact the youth, immersing them in a STEM environment by showing them how things work, why they work, thus fostering curiosity and excitement about hands-on learning.

Within elementary schools, we provide guidance and mentoring to FLL and FLL Jr. teams, inspiring them to progress further towards later *FIRST* programs. This year, we expanded on our impact by not only starting 11 FLL Jr. and 4 FLL teams, but also by completely funding 15 teams in our district.

In addition, we run programs to expand the impact and growth of *FIRST* in our community. Our after-school STEM enrichment program allows us to reach 60 additional students, increasing participation in the *FIRST* progression.

This year, we also started a coding club at our school. By introducing students to programming through mini-lessons and arcade game design, we're reaching people who previously would never have considered pursuing computer programming.

Together, this makes a growing community dedicated to advancing knowledge and appreciation of STEM fields. With over 300 students in our youth STEM and *FIRST* programs, we've more than doubled our reach in the past year alone.

Our team members introduce children to the fundamental concepts of STEM and exposes them to the environment of a robotics team. Our guidance inspires them to be more involved in STEM. This ultimately sets them up to become future leaders, not only in *FIRST* programs, but also in life.

## Our Youth STEM Events

This year, we hosted and ran the first-ever FTC League Meet in Michigan! This was the pilot event for the Michigan Oakland County Competitive Robotics Association, the first meet of four in the OCCRA middle school program. The event allowed 18 teams, both rookie and veteran, to compete in a tight-knit community of middle school robotics teams. With the incredible growth of FIRST teams at all levels throughout Michigan, increasing the number of events is critical to ensuring access to learning opportunities. By supporting the creation of FTC leagues, we're developing Michigan's infrastructure for supporting FIRST growth.

We also run a practice FLL/FLL Jr. event to allow teams to get an idea of how a real competition runs before they actually compete in one. This event encompasses the 15 FLL/FLL Jr. teams which we support. With this practice event, students are slowly introduced into the competitive side of FIRST, rather than being thrown into a stressful competition all at once.

The AdamBots also run several non-competitive events. This year, we partnered with the National Organization for Women to run the Girls STEM Event at our local library. This event focuses on the issue of girls' confidence in their ability to participate in STEM. By providing positive female representation, along with meaningful experiences in aerospace engineering, electrical engineering, computer science, chemistry, and biology, we encourage middle school girls to find their potential.

Furthermore, our team runs many robot demonstrations to inspire future engineers. Within our school district, we held four demos at elementary school science fairs and four demos at our school this year. Several of our team members have joined as a result of seeing the team demo at their school.

The events we host help develop a framework for future programs in the *FIRST* progression. Our youth events and demonstrations are designed to help expand our influence and target specific groups of students and mentors to increase participation in STEM.

## Our Global FRC Community

To support our global FRC community, we form relationships with teams from all over the world. We collaborate with and assist existing *FIRST* teams as well as form new ones and introduce others to STEM. Additionally, our resources are available on our website for all teams to use.

We openly share knowledge by inviting seven other teams throughout Michigan and Mexico to our weekly video calls. We collaborate with these teams to give one another engineering support throughout the *FIRST* season, discussing strategy, rules, design, and scouting. With these calls, we are able to spread many ideas as well as receive helpful input.

Two years ago, we started the Ambassador Program, where students traveling abroad spread STEM concepts. Their presentations have included EV3 robot demonstrations and information on local STEM opportunities. Our Ambassadors brought *FIRST* values to England, Haiti, Mexico, Australia, and Japan. After our Japan presentation, we formed connections with the Japanese FRC teams. We continue to provide ongoing mechanical and non-technical assistance. In 2018, we provided assistance to Team 6909 by connecting them to one of our sponsors for financial support, making their trip to the Championship in Detroit possible.

To aid in *FIRST* team sustainability, we proudly share our business planning experience with other teams. We post the AdamBots Business Plan on our website and answer questions throughout the year. This has led to helping seven teams write their business plans in the past year through emails and video calls. This summer, we also hosted a business planning conference with Team 4384 where we gave advice on sustainability, strategic planning, and awards submissions. Additionally, we wrote two new resources, "Writing a Business Plan" and "Entrepreneurship Award Guide," to enable more support. "Writing a Business Plan" has become a model for business planning throughout the FRC community, including being translated into Chinese which was shared with 100% of Chinese rookies. We've also joined FullCircle, Team 6814's initiative to help rookie teams develop an impactful and sustainable structure.

Through FullCircle, a few of our students work closely with nine rookie teams from California to Ukraine. This includes business planning, finance, and awards assistance. They also helped write several articles for FullCircle, including "Rookie Business Planning," "Fundraising 101," and "Rookie All-Star."

Travel competitions in the Upper Peninsula have become something of a tradition for our team. We use this as an opportunity to purposefully help other teams. In 2018, at the Escanaba district event, we provided programming, mechanical, electrical, Chairman's, and scouting assistance to over 55% of the participating teams and some continue to ask for support after we left the competition. One of the teams, Team 3617, asked us for further aid with Chairman's, business planning, programming, and design and build by making presentations that were presented at the Upper Peninsula Robotics Conference.

# Our Local Community

We appreciate our sponsors as an integral part of our community. We send them newsletters on our status, invite them to our Meet the AdamBots day, invite them to our competitions, and when requested run demos at their sites. Their funding and mentors are priceless.

Our support within our school administration has increased dramatically. Our principal has given us a separate room for the electrical subteam, a new storage room, a classroom that we can use as a mock field during the *FIRST* season, and even attends our events.

The AdamBots have a huge impact on our community, supporting many causes and providing 2,500+ community outreach/service hours annually. We participate in service projects such as the Hunger Walk for Rochester Area Neighborhood House and the Halloween Hoot cleanup. During the holiday season, we purchased gifts for the Neighborhood House Gift Tree, Rainbow Connection, and Toys for Tots. Our largest charity fundraiser is the Relay For Life for the American Cancer Society, as cancer has touched several of our mentors and families. At Relay for Life, our team has been awarded the top team fundraiser trophy for the past several years and has raised \$100,000+ overall.

We have had such a significant impact on our community that our mayor awarded us the Community First Award for making, “a notable effort to improve the quality of life of those around [us]” ([rochesterhills.org](http://rochesterhills.org)).

We formed a new collaboration, with the FEDS and the CyberCats— the other high schools in our district— called Rochester United to work on growing *FIRST* in the community. Together we walked with our *FIRST* robots in the televised Rochester Hometown Christmas Parade, viewed by over 65,000 people.

Through our service activities, we strive to have a major impact on the lives of the people in our community.

## Conclusion

As Adambots, we learn to collaborate, lead, and innovate. All of these skills are fostered by the ways we spread the *FIRST* message to others. You only need to look at the heights that our 187 alumni have reached in the STEM field, as engineers, doctors, scientists, programmers, and other professionals. Through *FIRST*, we strive to create a better future, not only for our students, but also for the community around us. Through Rochester United, we now have *FIRST* programs K-12 throughout our community. We are the AdamBots: an inspiring learning environment dedicated to building a global *FIRST* community.

**Final Character Count: 9690**

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