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1) Describe the impact of the *FIRST* program on team participants within the last 3 years. Think about percentages of those graduating high school, attending college, in STEM careers, leadership skills, and serving as mentors/sponsors in *FIRST* programs.

FIRST develops students into confident leaders prepared for STEM careers and service. 64% of our team comes from FTC. 28 students (7.2% of student body) and 8 mentors comprise 7166. 100% of our graduates pursue STEM post-secondary, earning $77,000 in scholarship in the last 3 years. 13% of 7166 mentor FIRST teams. 50% of our mentors are FIRST alumni. An alumni said, "FIRST helped develop my love for STEM. I found a community who supported my curiosity, encouraging me to pursue biochem forensics.

2) Describe your community along with its unique opportunities and circumstances. Think about your geographic region, diversity of town/school, language barriers, socioeconomic barriers, and cultural expectations.

7166 is the only source of STEM in Laingsburg, providing opportunities to 140 students each year. 1,112 students make up the district, 25% are low income. The district is underfunded and does not prioritize STEM education. Elementary students receive science 1-2 times per week. 6-12 have no STEM electives, including off-site CTE options. The town's population is 1,500 with a demographic of 91% Christian Caucasian. Devoid of large employers, residents must commute long distances.

3) **Describe the team's methods, with emphasis on the past 3 years, for spreading the *FIRST* mission in ways that are effective, scalable, sustainable, and creative. (*FIRST* mission – provide life changing robotics programs that give young people the skills, confidence, and resilience to build a better world.)**

Building something from nothing means being intentional. Created by team members, our interactive events engage more than 500 people yearly. Since 2023, we've donated 4,300 hours with 100% of members volunteering. Through events like STEM Night and Robo Read Aloud, FIRST has become the largest extracurricular in Laingsburg with 10% participation. "FIRST provided opportunities I never thought were meant for me. I learned I love public speaking and can now talk with anyone," says a 7166 member.

4) Describe your team's goals and the progress you have made towards them to fulfill *FIRST*'s Vision. (Vision to transform culture by creating a world where science and tech are celebrated and where young people dream of becoming science and tech leaders).

We have 2 main goals: to cultivate STEM opportunities and to build future leaders. 100% of our initiatives, like summer camp, have been in existence for at least 3 years and are student-run. In 2024, we co-founded CAR FTC League to provide 300% more match play to 32 teams. 7166 students grow leadership skills by organizing STEM programs that celebrate science and empower peers to lead. Our Leadership Team drafts policies and manages daily operations, organizes events, and mentors new students.

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5) **What impact has your team seen from your efforts described in the above question? How does your team measure impact?**

In our rural area, retaining even one student is meaningful. Since 2023, enrollment across our FIRST pipeline has increased by 158% while sustaining 100% of existing teams. Engagement is strong, with 54% of summer campers returning for 2 years and 25% attending all 3. Leadership growth is reflected in 70% of FLLC and 39% of FRC having 4 or more years in FIRST. Our student leader mentorship program cultivates a sense of belonging for new members, resulting in 96% year over year retention rate.

6) **Please provide specific examples of how your team and team members act as role models for the *FIRST* community with emphasis on the past 3 years. How do you share these best practices with other teams?**

We are the face of FIRST in our community and inspire those who come after us. Since 2023, we have taught 86 role models from 10 other teams how to use sentence starters and frameworks to delegate tasks, develop season goals, and engage in difficult conversations. Every year, we provide 10 referees and an Emcee to support FIRST events including Championships. A training we originally held in 2025 for another team was published online, reaching 600 views.

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

Building a cohesive FIRST ecosystem is key to our sustainability. Since 2023, we have started 31 FLL and 5 FTC teams across 2 districts, supporting funding, mentor training, and launch. We have mentored 2 FLL, 2 FTC, and 3 FRC teams for at least the last 2 consecutive seasons through coaching, in person support, webinars, and virtual check ins. In 2025, we committed to a 3-year mentorship of a rookie FRC team to support their long-term success, focusing on navigating the full FRC season.

8) **What other initiatives have you created, grown, sustained, or participated in (*FIRST* or otherwise) to help inspire young people to be science and technology leaders and innovators? What outcomes have you seen from your efforts in the past 3 years?**

We build paths for girls to stay engaged in STEM during the years they often leave. Through Girls Who Code with local Girl Scouts, we helped 93 girls earn robotics patches in 3 years. Since 2024, we've started 3 FLL and 1 FTC all-girl teams and created InnovateHER, the only all-girls FTC event in mid-MI. These efforts increased female enrollment by 12% in 2 years, countering declines in girls' STEM confidence. Through her involvement in FIRST, Lily, an FLLC member, aspires to be a NASA engineer.

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9) Describe the partnerships and relationships that you've created with other organizations (teams, sponsors, educational institutions, government, philanthropic entities, etc.) and what you have accomplished together, with emphasis on the past 3 years.

As a 2024 founding member of Capital Area Robotics, we collaborate with 8 districts to pool resources and expertise, strengthening sustainability across the Greater Lansing region. Industry partners hire alumni as interns and employees, reinforcing FIRST as a talent pipeline. We've partnered with our Lions Club since 2018 and volunteer more than 200 hours yearly to their fundraisers and events. In 2024, we shared our story on CAMC's podcast which reached thousands of business professionals.

10) **Describe your team's efforts in the past 3 years to promote *STEM for Everyone* within your team, *FIRST*, and your communities.**

Creating an inclusive and welcoming environment is non-negotiable for our team. Students receive annual professional training to recognize panic attacks and support neurodivergent individuals. We survey students yearly and 84% identified robotics as their safe place. Over the last 3 years, 50% of our SMEs are non-male. Each year, 100% of our pipeline participates in fundraisers to keep dues affordable and provide need-based scholarships so STEM doesn't depend on family finances.

11) **Explain how you ensure your team and the initiatives you have created will be sustainable.**

Sustainability is driven through structure and succession. In 2022, we formed Wolfpack Robotics, a 501c3 that manages fundraising, including a $6,000 annual tech raffle. 50% of our sponsors have partnered with us for at least 2 years. In the past year, our 8th grade apprenticeship and Learning Lab have driven a 200% growth. Seniors are paired with underclassmen to ensure knowledge is transferred. We use a similar approach with outreach, encouraging everyone, especially rookies, to get involved.

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

Burnout is a challenge in FRC and we tackle it head on. In response, we partnered with a mental health counselor to learn how to identify burnout and develop coping strategies, redesigned our build schedule to reduce mandatory hours, added Mental Health Days to our attendance policy, and created a "No Questions Asked" Mental Health Bin with calming tools like stuffies, fidgets, coloring books, and sensory strips. These changes help students balance robotics, academics, and personal well-being.

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13) **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, particularly noteworthy or had a large impact.**

When our local Lions Club lost their raffle tumbler in a 2024 basement flood, we volunteered our engineering skills to design and build a replacement. Using CAD, 3D printing, and CNC routing, we created a custom rotating tumbler in the Club's colors. The Lions Club debuted it in their Springtime Festival, where we presented the tumbler and assisted with prize drawings for hundreds of community members. We also design and 3D print gifts like doorstops for our teachers to express our gratitude.

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Red Thunder Robotics was founded in a community where STEM opportunities did not exist. In a rural high school of 17 classrooms and zero STEM courses, our students took ownership of the problem and built a solution. What started as one FRC team is now a student-led ecosystem of 25 teams reaching 10% of Laingsburg's K-12 population. Each year, our members contribute nearly 1,600 hours toward creating sustainable systems that develop confident leaders, expand access, and ensure opportunity endures long after any one class graduates. By intentionally designing programs that grow people and persist over time, we have transformed the absence of STEM into a permanent culture of opportunity.

Student development is the foundation of our work, and we start early. Our Robotics Read Aloud introduces STEM concepts to kindergarten classrooms through hands-on lessons and robot demonstrations. To engage families, we host Family STEM Night, our largest annual outreach event, where, since 2023, more than 570 community members have engaged in hands-on explorations and interact directly with FIRST programs. This early exposure has proven impactful, with 50% of participating students joining our 16 FLLE teams in the last 3 years.

We further built access through our annual STEM and coding summer camp, reaching more than 60 elementary students each year. Built in 2023, campers immerse themselves in the scientific process and use LEGO kits to learn about iteration and code. Cora has attended all 3 years. Her favorite part is learning from her FRC counselors. Since 2023, 65.8% of campers have enrolled in our FIRST teams.

Once in FIRST, our students stay. 65% of this fall's FLL students have more than 1 year of FIRST. Myka, a member of the first FLLE team we started in 2022, is aging into FTC and excited to advance her coding skills on our all-girl team. When she volunteered to demo her team's robot at our 2025 FLLE festival, her enthusiasm sparked enough interest that a sixth FLLC team is needed for 2026.

Grant, an original member of our first FLLC team, is now an 8th grade apprentice preparing to take over FRC software next season while supporting 2 other teams through swerve code troubleshooting.

To strengthen transitions between programs, in 2022, we created an 8th Grade Apprenticeship that invites FTC students to participate fully in the FRC build season before entering high school. Apprentices complete the same tasks as veteran members with mentor and peer support, ensuring readiness and belonging. This approach has resulted in a 100% retention rate, creating a seamless and sustainable transition between FTC and FRC.

In 2023, we launched Learning Lab to provide a structured, low pressure entry point where students build technical skills, confidence, and team culture at their own pace before contributing to a competition robot. Through tool use, coding, and iteration, 12 students have worked toward skill-based badges that demonstrate readiness for the competition robot while embracing mistakes as part of engineering. Olivia, a current member, credits Learning Lab with

helping her step out of her comfort zone to learn how to interact more confidently. She now supports teammates by helping others during the build process.

As students develop, leadership becomes a shared responsibility. Our Student Leadership Team was started in 23-24 and empowers students to facilitate meetings and workshops, respond to student needs, draft policies, and guide initiatives that shape our culture and operations. Members devote 40 hours yearly. This distributed leadership model allows students to take ownership of the program while ensuring sustainability and preventing burnout as responsibilities are passed to trained successors.

Homework Lab is a student-designed solution to the challenge of balancing academics and robotics. Created by our 2025 Leadership Team, it allows students to complete classwork during meetings while remaining present and supported, with mentors and peers helping in a structured workspace. Combined with weekly grade checks, Homework Lab has helped 100% of our team earn a C or better in their classes, promoting retention and student well-being without sacrificing expectations.

Our custom-built 15-hour Leadership Seminar is a cornerstone of how we develop leaders, and we have been hosting it since 2021. Our seminar empowers participants with essential communication and leadership skills that translate directly to the modern workforce. Attendees learn actionable frameworks for starting difficult conversations, strategies for active listening, and sentence starters that enhance clarity and empathy. They don’t just hear these ideas; they practice them through authentic pairings and real-world scenarios, leaving the workshop with confidence, capability, and a toolkit they can use for life. Over the last 2 years, we have tripled attendance to 48 students and mentors attending in 2025. Our reach extends beyond Michigan as a team from Minnesota traveled to attend our training in 2024. Since that moment, we have been working to implement a Train the Trainer model so Leadership Seminar can be sustainably shared with teams across our state and beyond.

Supporting other FRC teams through shared learning is a core component of our vision. As a founding member of Capital Area Robotics, we are committed to supporting teams through technical mentoring, organizational resource sharing, and collaborative workshops. In the last 3 years, we have dedicated more than 360 hours to hosting workshops and mentoring 3 FRC teams. This year, we expanded our reach by hosting an informal kick-off for our mentee teams, starting the day with workshops. We incorporated team builders to break barriers between teams, and following the game reveal, all 3 teams participated in Strategy Dictates Design, using our team as a template. By openly sharing both technical and non-technical knowledge, we strengthen the FIRST community through scalable learning rather than isolated support.

Through partnerships such as Sleep in Heavenly Peace, students apply the technical and teamwork skills developed through FIRST to meet real needs within our community. Since 2024, 46% of our members have used their measuring and fabrication skills to build 126 beds for children without one of their own, fortifying that FIRST skills extend beyond competition to directly improve quality of life.

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Our systems-driven approach has enabled impact beyond our community. Interest generated through outreach events led us to welcome 25% homeschool and out-of-district students into our pipeline. We have guided 4 districts in the last 18 months as they begin or expand FIRST programs, focusing on navigating the dashboard, recruiting students and coaches, and securing sponsors. By sharing published resources and being a listening ear, we help communities build programs designed to last.

Our partnerships extend into regional workforce development. Through collaboration with the Shiawassee Economic Development Partnership, students help bridge the gap between local employers and FIRST. Yearly, we host manufacturer mixers to connect teams with 40-60 industry professionals and provide quarterly program updates at SEDP meetings, strengthening awareness of FIRST as a talent pipeline. These efforts position robotics as a long-term investment in regional workforce readiness and promote connections between students, education, and industry.

Even as many graduates leave Laingsburg for college and careers, alumni continue to give back when possible. Since 2023, 50% of our alumni have returned as mentors, volunteers, and panelists. A 2024 initiative led by 8 alumni is a Life After FIRST panel discussion, an opportunity for students in our region to learn how FIRST prepares members for post high school life. Our alumni's continued involvement reinforces that leadership and service remain part of our culture long after graduation.

Equity is embedded across our programs. Recognizing a gap in competitive space for middle school girls, we created InnovateHER in 2025, the only all-girls FTC event in mid-Michigan, intentionally designed by our students to foster confidence, inclusion, and belonging. 19 teams attended our inaugural event, with some traveling over 2 hours to participate. The success of InnovateHER emphasized the importance of creating consistent competition experiences which encourage students to remain engaged in FIRST.

By hosting FIRST events like InnovateHER, Capital Area FTC League meets, and FLLE festivals, we provide consistent, high-quality competition experiences which encourage retention across programs. In the last 12 months, our co-founded FTC League has grown by 11 teams. Since 2023, we have welcomed 22 Explore and 37 FTC teams to our events. Trained student volunteers and alumni serve as referees, reviewers, and event staff, encouraging student leadership while expanding access to FIRST within our region.

Over the past 3 years, these systems have reshaped how STEM is viewed within our community. Robotics is no longer seen as a specialized activity, but as an expected and accessible pathway for students of all ages. Younger students enter our programs already anticipating leadership, mentorship, and service, while families and educators recognize robotics as a cornerstone of student growth rather than an extracurricular add-on. This cultural shift ensures that access to STEM and leadership does not depend on individuals or short-term enthusiasm but is embedded into the identity and expectations of our community.

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Our work is intentionally interconnected and built to last. In a community where STEM opportunities did not exist, our students chose to build systems to ensure access is abundant. Through intention, collaboration, and a belief in the potential of every student, 7166 continues creating pathways for learning, leadership, and opportunity within our community and beyond.