

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.

[500/500 characters] DONE

Team Neutrino (TN) develops members' technical skills, leadership, responsibility, and effective communication. Since 2022, 85/25 of our seniors have graduated high school, and 85% pursued STEM at schools such as Iowa State University (ISU), Yale, Notre Dame, and Purdue. 11 of our alumni have volunteered for FIRST or mentored a FIRST team in the last 3 years. Additionally, this Fall, 13 members and 8 alumni of our team volunteered to support Clash in the Corn, an Iowa off-season FRC competition.

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. [496/500] DONE

TN is a 4-H team based in Story County, Iowa. We provide need-based scholarships to TN members to cover 4-H and team fees. Being in a college town lets us partner with 70 ISU faculty and student mentors on campus. We maintain close relationships with local organizations to expand our reach. With John Deere, we presented robot game strategy to 150 FLL'ers at the 2022 Quad Cities FLL Kickoff. We worked with Story County 4-H to host our 2024 summer camp, FLL Blastoff, at their extension office.

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.  
→ The mission of FIRST is to provide life-changing **robotics programs** that give **young people** the skills, confidence, and resilience to build a better world. [496/500] DONE

Through our **creative** FLL Blastoff camp, we condensed the FLL season into one week, sharing the robot design process and FLL core values with 75 4-8th graders. Following the camp, 5 parents became FLL coaches of teams mentored by TN. To ensure **sustainability**, we have volunteers from each grade and are hiring graduating seniors as camp interns. We secured a \$650 grant to fund student scholarships and \$1000 for more robots to make the 2025 camp more **effective** as we explore **scaling** it statewide.

4. Describe your team's goals and the progress you have made towards them to fulfill FIRST's Vision.  
→ To transform our culture by creating a world where **science and technology** are celebrated and where **young people** dream of becoming science and technology leaders. [496/500] DONE

Our goal is to be role models who inspire future STEM leaders. Since 2012, we have taught engaging STEM curriculum at the Enrich, Empower, Excel (EEE) summer school, reaching 202

K-5 students in the past 3 years. In 2024, we grew our summer outreach hours by 52% from summer 2023. Since 2022, we demoed our robot to youth at 4 STEAM nights, met 1,049 community members at CelebrAsian, a cultural festival in Iowa, and provided 15 volunteers to the Science Center of Iowa's (SCI) Mini Maker Faire.

5. What **impact** has your team seen from your efforts described in the above question? How does your team **measure impact**? [494/500] DONE

We measure impact by the number of people we reach and the STEM skills they gain. We survey students' learning before and after camps. At EEE, 85/85 students reported a greater understanding of STEM after following our curriculum. Since 2022, we have reached 35,531 people over 1,585 outreach hours. Our increased community visibility helped recruit students to join FIRST and our presence at the Slater Library's STEM Saturday resulted in an opportunity to support a Girl Scout robotics badge.

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? [494/500] DONE

We started the Ames FIRST Alliance Slack workspace, with 207 current members, to foster communication between all local FLL mentors and coaches. Of 2025 TN members, 40% were mentored by our team as FLL students. We recruited 2 members for FTC 7491 in 2022 who are still on the team. In 2023, we lent tools to team 4091 who faced flight baggage restrictions, and we assisted team 8822 with programming in 2024. We mentored FRC 9543 on pit judging, and they won the 2024 Rookie Inspiration Award.

7. Describe your team's **initiatives** to Assist, Mentor, and/or Start other FIRST teams with emphasis on **activities** within the **past 3 years**. [498/500] DONE

We provided 15 high-school mentors to 7 FLL teams over the past 3 years, with 5 FLL teams qualifying for State. We also mentored 3 rookie FRC teams since 2022. To further support FIRST locally, we have hosted and run the Ames FLL Scrimmage since 2011, making it our longest-running outreach event. At the 2024 Scrimmage, we brought 10 local teams together with 50 TN and TN-recruited volunteers. We've also volunteered at FLL State and 1 FTC meets, and provided 27 volunteers at Clash in the Corn.

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? [490/500] DONE

Our largest new initiative this year was FLL Blastoff. Through daily reflection surveys, we refined our curriculum to address student learning needs. We used pre and post-camp surveys to measure campers' ability to complete robot tasks such as turning and driving. At the start of

camp, 52% of attendees couldn't complete any of our robot challenges, and by the end, 78% of attendees could complete 5 out of 6 challenges. 1373 camp attendees employed these skills as FLL members that fall.

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. [493/500] **DONE**

Our partnership with ISU provides us with crucial facilities and mentors. Mentors are a bridge between us and our sponsors, with 15 mentors from 5 sponsoring companies. TN facilitates closer sponsor relationships through annual visits and newsletters. In collaboration with FRC #6419, we supported a new off-season competition in Iowa, Clash in the Corn 2024. Through our 4-H affiliation, we mentored a Story County 4-H rookie FLL team and, with our support, they won the Rising All-Star Award.

10. Describe your team's efforts in the past 3 years to promote **equity, diversity, and inclusion** within your team, FIRST, and your communities. [494/500] **DONE**

TN encourages women to be leaders. 10/15 student leaders and 55% of our team are girls. At the SCI Girls Code camp, we empowered 50 girls to explore STEM. Our team has 43 students, including 15 9th, 5 10th, 14 11th, and 9 12th graders. As a Story County 4-H team, we have brought together members from 5 schools over the past 3 years. We also have an equitable associate role for students with less time availability to stay involved. This year, we have 15 associates and 15 full team members.

11. Explain how you ensure your team and the initiatives you have created will **be sustainable**. [485/500] **DONE**

TN hosts training camps and advanced projects during each offseason to expand learning for new and returning members. We also create and maintain Timeless and How-To documents. These record our team's methods and standards for future members, helping us improve and build on past knowledge. Upperclassmen act as role models and share opportunities with newer students. Grace, a junior, passed leadership of our FLL Blastoff initiative to Laura, a sophomore who led the camp to success!

12. Highlight **one** area in which your team needs to improve and describe the steps actively being taken to make those improvements. [487/500] **DONE**

We face the challenge of making knowledge accessible for all students during the off-season. In response, we piloted 5 design challenge modules that covered robot architecture, design calculators, and CAD skills. 72% of design subteam members created and completed the challenges, promoting significant engagement and motivation for future learning. A TN freshman

completed 1 challenges, which “grew [his] knowledge of other teams’ robot designs and prepared [him] for the Build Season.”

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. [499/500] DONE

We create an impact beyond our team. Since 2022, 10% of TN members have started/led 1 high school STEM clubs. At the state level, our reach extends to educators and legislation. We were the first and only students to present at the Iowa Technology and Education Connection conference and have provided educators with FIRST resources since 2022. Captain Sarah, a member of the 2025 FIRST Iowa Student Leadership Board, introduced legislation to start and sustain FIRST teams at small schools in Iowa.

14. Please use this space to ask 1 question to your FIRST Impact Award Judges, which will be answered after each event with feedback from the judges. DONE

What have you seen as the most effective way to measure the impact of an initiative, both in terms of collecting the data itself and communicating that data to others?