Chairman's Executive Summary

2015

1. *Briefly describe the impact of the FIRST program on team participants with special emphasis on the 2014/2015 year and the preceding two to five years.*

Team Neutrino members gain real world skills and experiences throughout their time on the team, providing higher education and career advancement opportunities.

- 85% pursue STEM as a career.
- Team quadrupled in size from 9 to 35 since its formation.
- Students learn valuable technical, leadership, and business skills.
- Through FRC, Captain Timothy took a job with implementing the Ames 1:1 laptop program.
- Member Nathan used his CAD knowledge to design and 3D print a case for his calculator.

2. *Describe the impact of the FIRST program on your community with special emphasis on the 2014/2015 year and the preceding two to five years*

This year, Team Neutrino

- introduced FIRST to 130,000+ people.
- volunteered for 1200+ hours.
- formed and enriched 14 partnerships in the Story County community.
- mentored 5 FLL teams.
- worked with over 2000 kids outside of FIRST.
- ensured availability of FIRST to all K-12 students in Ames.
- started and mentored 4 Jr. FLL teams, 3 of which were all-girls.
- encouraged 200+ girls in STEM.

3. *Describe the team's innovative or creative method to spread the FIRST message.*

3928 recruits most "New-Trinos" at the Ames High School Club Fest. The team remains sustainable by introducing new students to FIRST.

This summer, Team Neutrino presented to the Ames STEAM enrichment program for underserved youth. This sparked interest in FIRST for students.

Since 2012, 3928 planned & taught a 2-week long summer class with 75 total participants. Students learn to use sensors & build attachments to complete missions, and many students later join and excel in FLL.

4. *Describe examples of how your team members act as role models and inspire characteristics for other FIRST team members to emulate.*

3928 prides themselves on leading by and learning from example. As the fourth FRC team in Iowa, 3928 is on the cutting edge of FIRST growth. Team members embody FIRST values in meetings and daily lives and have more success and form more long-lasting friendships because of their experiences. 3928's student leaders help new members understand their area. Each subteam has a senior or junior leader working with underclassmen to continue the team's success and sustainability.

5. *Describe the team's initiatives to help start or form other FRC teams.*

During the Rebound Rumble offseason, Team Neutrino traveled to Des Moines, Iowa to share our rookie team's robot at a local high school to inspire them to start an FRC team. From there, we assisted with the organization of the sixth FRC team in Iowa in Des Moines, CoLab #4646, now known as ASAP, ensuring their continued sustainability. Since then, 3928 has been focusing on our own expansion first by creating a solid base of FIRST in Ames and then planning the growth of FRC in the state.

6. *Describe the team's initiatives to help start or form other FIRST teams including Jr.FLL, FLL, & FTC.*

3928 started and mentored 3 all-girls Jr. FLL teams this year. Not only did the teams complete the Jr. FLL challenge, but also got to work with makerspace technology and meet professionals in STEM fields. Through working with the FLL program at Ames Middle School, 3928 supports 4-6 teams by volunteering at their annual scrimmage, mentoring, and giving the teams a better idea of what FIRST is about. Both programs are sustainable and form a progression of FIRST where K-12 students can be involved.

7. *Describe the team's initiatives on assisting other FIRST teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the FIRST program.*

3928 recognizes the importance of an extended period of time in FIRST. The team worked with other FRC/FTC teams to present the next level of FIRST to younger students, together amounting to 500+ hours.

- Science Center of Iowa robotics day with FRC 4646 & FTC 5126
- Iowa State Fair with FRC 167, 967, & 4646 & 3 FTC teams
- SCI Mini Maker Faire with FRC 4646 & FTC 5126
- Demo for FTC 7491 at Iowa State University
- SCI FLL Regional volunteering
- Iowa FLL State Championship demo & presentation with FRC 525

8. *Describe how your team works with other FIRST teams to serve as mentors to younger or less experienced FIRST teams including Jr.FLL, FLL, FTC, & FRC teams.*

This year, Team Neutrino greatly expanded their work mentoring other FIRST teams.

They developed an FLL mentoring program at Ames Middle School, which in 2014 resulted in 3/4 teams winning awards & one advancing to state. Over 120 man-hours were spent with the teams this year.

The scrimmage provides teams with a chance to practice robot rounds & get feedback. Twenty FLL teams have participated in this event.

3928 created 3 Jr. FLL teams, currently having spent over 60 hours with them.

9. *Describe your Corporate/University Sponsors.*

John Deere

Danfoss
CIT Signature Transportation
Monsanto Fund
Quality Manufacturing
3M

Iowa 4-H Foundation

Story County 4-H
Iowa State University College of Engineering
Iowa State University Robotics Club
Boyd Lab

City of Ames Electric Services
Shaw Philadelphia Commercial
Emerson Process Management
Interstate All Battery Center

Frontline Bioenergy
Jimmy John's

10. *Describe the strength of your partnership with your sponsors with special emphasis on the 2014/2015 year and the preceding two to five years.*

John Deere is our most supportive sponsor. They assist us monetarily, and our lead mentor is a John Deere employee. 3928 keeps a positive relationship with sponsors through regular contact in the form of weekly newsletters, visits, thank-you letters, and website and social media updates. Sponsor logos are displayed on the robot, in the pit, and on promotional materials. The City of Ames purchases FIRST e-Watt saver light bulbs and invites 3928 to their eco fair annually.

11. *Describe how your team would explain what FIRST is to someone who has never heard of it.*

FIRST is designed to inspire elementary, middle, and high school students in the advancement of STEM. It is built around a culture of encouraging youth to pursue and respect science and technology. Through FIRST, students develop leadership, communication, technical, teamwork, and time management skills imperative in an industry setting. FIRST prepares its participants for higher education, technical or vocational education, and life afterwards.

12. *Briefly describe other matters of interest to the FIRST judges, if any.*

3928 has a lasting impact on everyone they reach; from team members and mentors to their local and FIRST community. The team is memorable for their tenacity, communication, and cohesion. Students are better prepared for life because of FIRST, as they've been able to experience firsthand failures, successes, and consequences, and learn how to adapt to them. FIRST is not just a robotics competition, it's a pathway to inspire the next generation of innovators.