

## 2014 Executive Summary

**1. Impact of FIRST Program on Participants (498/500)** Describe the impact of the FIRST program on team participants with special emphasis on the current season and the preceding two to five years

On the Killer Bees, students drive all team functions, but inspiration starts with our mentors. They instill a passion for FIRST in students, and this excitement makes team members eager to learn skills, pay it forward, and pass it on.

Seniors graduate with:

Greater appreciation of STEM regardless of future plans

Hands-on skills to supplement classroom learning

Pre and post high school graduation internships opportunities

Business and time management skills

Confidence to create change in the world

**2. Impact of FIRST Program on team and community (484/500)** Describe the impact of the FIRST program on your community with special emphasis on the current season and the preceding two to five years

Team 33's unique communities include our JK-12 school and county communities. Local demonstrations bring robotics action to all audiences, and this year we went a step further with the area Girl Scout council. Badge workshops brought FIRST to 500 people and prompted the creation of numerous Girl Scout Jr. FLL and FLL teams council-wide. Team 33 also works to bring FIRST to our community through STEM focused outreach, like monthly technology assistance at local elder care centers.

**3. Innovative Methods of Spreading FIRST (489/500)** Describe the team's innovative or creative method to spread the *FIRST* message

To spread FIRST in our community, we partnered with the local Girl Scout Council and introduced 250 girls to STEM and FIRST programs. These Scouts will continue to support area FRC teams. Closer to home, we have FIRST programs for all students in the NDPMA school community. Killer Bees work with politicians and business leaders to promote FIRST and create a STEM hackerspace. In addition, Bees work to sustain other FRC teams and provide monthly service opportunities locally and beyond.

**Team Member Role Model Characteristics (494/500)** Describe examples of how your team members act as role models and inspire other FIRST team members to emulate

On Team 33, students take their ideas and implement them fully in initiatives, like the Purple Alliance and OZONE. Girls participate in all team positions and inspire others to follow in their steps within the team and FIRST community. Multilingual students form relationships with international teams, and students use days off to recruit for rookies county-wide. In 2013 worker bees spent time at other district events to repair rookie bumpers, pneumatics, and electronics to pass inspection.

**Start/Form FRC Teams (497/500)** Describe the team's initiatives to help start or form other FRC teams

Team 33 works to improve the competitive value of FRC. This year, we helped form FRC teams 3538 at Avondale and 5053 Our Lady of the Lakes Schools, our former athletic rival. This includes communicating with the teams during build season, mentoring them in topics like sponsorship and sustainability, directly assisting in recruitment, and facilitating a joint Kickoff and strategy session. In Oakland County, 93% of public high schools have an FRC team and we work to support and sustain each other.

**Start/Form Jr. FLL, FLL, FTC Teams (499/500)** Describe the team's initiatives to help start or form other *FIRST* teams (including Jr. FLL, FLL, & FTC)

At our Girl Scout badge workshops, parents were given information on FIRST programs while girls interacted with Bees. Killer Bees helped begin 14 Jr. FLL and 1 FLL team to continue the event's STEM concentration. These teams will continue to support the progression of students into FRC. Our FLL sister teams have expanded at our middle school to include an FTC team. We provide other FRC teams resources to implement similar development programs.

**Assist Jr. FLL, FLL, FTC teams/progression through FIRST (489/500)** Describe the team's initiatives on assisting other *FIRST* teams (including Jr. FLL, FLL, FTC & FRC) with progressing through the *FIRST* program

We encourage students to proceed through our full spectrum of FIRST programs as WannaBees and Yellow Jackets to strengthen the skills of prospective Killer Bees. Team 33 has a rich tradition of mentoring partner development teams, and we started a rookie FTC team to expand an extremely popular FLL program. Supporting these teams include direct mentorship, tournament preparation, and sponsorship. 50% of the FRC team is FLL alumni, and many return to give back to FLL and FTC as mentors.

Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (includes Jr.FLL, FLL, FTC, & FRC teams)  
(500 characters allowed, including spaces and punctuation)

Team 33 has a strong commitment to mentoring less experienced FIRST teams. This

includes everything from editing submissions for 6 teams presenting the Chairman's Award, to giving technical and organizational advice to teams year round. In other leagues, we mentor several FLL teams and an FTC team, and sustain others through Girl Scout outreach. Current Bees who are alumni of FLL return as FLL and FTC mentors. Many FRC alumni return to support FIRST programs as coaches, judges, and more.

**Sponsors(487/500)** Describe your Corporate/University Sponsors

Team 33 aims to be sustainable and financially sound each year. We fund our team primarily through sponsors who assist the team with donations of money, services, and mentors. In 2014, a Killer Bee alumnus ('01), a small-business owner became our newest sponsor. Our main sponsor provides us with mentors, supplies, and shop space and we give back to them with students who are skilled interns and Project Speedbump, a test platform for autonomous vehicle collision avoidance.

**Sponsor relationships (461/500)** Describe the strength of your partnership with your sponsors with special emphasis on the 2013/2014 year and the preceding two to five years

Strong sponsor relationships start with a team of student presenters that demonstrate our latest robot to introduce potential sponsors to FIRST. We work with current sponsors to show them the value of their contribution and provide demonstrations at their community activities. Sponsors attend Kickoff and Reveal Day celebrations, visit our shop during build meetings, and cheer with us at competitions. They are prominently featured on our publications and robots.

**How would you describe FIRST (494/500)** Describe how your team would explain what *FIRST* is to someone who has never heard of it

FIRST is an exciting, educational experience for K-12 students in competitive robotics. The various programs promote STEM education and awareness, while inspiring entire communities. FIRST shows students of all ages that STEM can be fun, education has real world applications, and that students have the ability to make an impact in their world. Education outside of the conventional classroom through building metal or LEGO robots in FIRST instill seemingly simple values that last a lifetime.

**Other (499/500)** Briefly describe other matters of interest to the *FIRST* Judges, if any

Each year, 80% of seniors plan to pursue a STEM career, and we have over 250 alumni in 19 years.

100% of alumni have pursued higher education from 2009-2013

FIRST Robotics is the largest recognized varsity activity at NDP

The Purple Alliance assisted 600+ individuals in our community with 90+ FRC volunteers

Each Bee produced a part of Buzz XIX

Open structure allows students to pursue multidisciplinary experiences and assume individual leadership positions, like university project teams.