

Cyber Blue 2015 Chairman's Essay

Cyber Blue, *FIRST* team 234, is building on 17 years of experience to transform the culture of students, school, and community. Team 234 is devoted to the *FIRST* mission of creating life capabilities including self-confidence, communication, and leadership. This commitment to helping others while inspiring the growth of members sets Cyber Blue apart.

Cyber Blue operates as an efficient business. The development of the business begins when 234 recruits new members to sustain the program. Knowing the importance of getting new members involved early, Cyber Blue invites 8th grade robotics team members to join them the summer before they begin high school. Incoming freshmen are introduced to *FIRST* and Cyber Blue at the school's freshman orientation where 234 showcases the robot, explains the program and encourages them to join. Cyber Blue then hosts a new member open house, inviting interested students and their families to the lab to catch the excitement of STEM. The next step in the recruitment process is for each member to create a resume and undergo an interview to become part of the team. Returning members are given an evaluation each year which includes a performance review and goal setting for the upcoming season. Prior to build season, all students are asked to expand community outreach through obtaining sponsorships. During offseason, students learn to develop their writing and public speaking skills through technical papers and demonstrations. Students and mentors work together in every aspect of the team from creating a formal business plan, to developing a design review for senior professional engineers, to passing on technical knowledge.

Cyber Blue is a role model for the *FIRST* community. Seeing the need for a one-stop source of FRC information, 234 launched clickFRC.org. This website is a comprehensive portal of information from many sources, including technical knowledge, travel advice, and business ideas in a well-organized format.

Cyber Blue is an exemplary for others to emulate through helping rookie teams. This year, 234 built a shipping crate to assist the team selected as the Indiana Rookie All-Star. The purpose of this crate was to alleviate the time and financial constraints that occur between the Indiana *FIRST* State Championship and the FRC Championship. The hope is that this crate will be passed along each year to the next Rookie All-Star winner.

To aid all *FIRST* teams, 234 has published over 25 documents. These documents include white papers, Chairman's essays, special projects, rookie DVD, how-to guides, and design processes. Cyber Blue was one of the first teams to create a formal business plan. Team 234 then developed and published a business plan template to assist *FIRST* teams. Recently, guidelines on how to conduct a risk assessment were included. Cyber Blue then created and published a continuity plan, using a risk management process modeled after sponsor, Rolls-Royce. In 2014, the template was updated to include a reference for preparing the executive summary and a SWOT analysis in alignment with *FIRST*'s new Entrepreneurship criteria. These documents, all published on Chief Delphi, have been downloaded over 25,000 times since publication.

Aside from assisting others online, Cyber Blue remains a constant role model for others by organizing and executing programs that exemplify the core values of *FIRST*. Several years ago, 234 developed a mock kick-off event to prepare new members for what to expect at the start of build season. After seeing the benefits, Cyber Blue opened its doors to teams across Indiana to experience the event and gain an understanding of kickoff and how to begin the design process.

Cyber Blue enhances the theory of coopertition by mentoring and supporting several teams during build season. Recently, Cyber Blue enjoyed showcasing the lab and newly built

competition field, offering welding, electronics, and programming support. Team 234 also assists at regional competitions by frequently helping with field set-up, take down, and offering VIP tour guides. Cyber Blue also provides hands-on support via mentors, students, and a tool cart in the pits. The team works to ensure that it is constantly contributing to the success of others.

Cyber Blue impacts the sustainability of *FIRST* through creating programs that yield valuable leaders and new mentors. In 2013, 234 launched a class at IUPUI, a local university, to train new mentors to assist FRC teams. This course was aimed at recruiting college student FRC mentors by teaching them the skills needed to be successful leaders. This venture benefited 8 teams from the Indy area with new mentors. A modified session of the training was adopted by *FIRST* Vistas and Senior Mentors to train other mentors in their regions. Team 234 also completed a webinar, providing guidance on maintaining sponsors, which has become part of the *FIRST* Fundraising Toolkit.

Cyber Blue continues to have enormous support from Perry Meridian High School and the community. This fall, 234 hosted a viewing of the movie *Slingshot* to help educate students and the community about the need for clean water. An invitation was extended to other *FIRST* teams across the state as well as the community. Cyber Blue donated 25% of the proceeds to Clean: Water, an organization dedicated to providing clean water to all. Events such as this, progress during build season, and robotics competitions are often featured in the local newspaper and township website. The team is also included in the school's pep sessions and homecoming parade.

Additionally, 234 continues to spread the message of *FIRST* throughout the school through the teachers. Each season, team members recruit a teacher sponsor. Teachers then share their enthusiasm with their classes, promoting the team by displaying Cyber Blue spirit and wearing team apparel. School support has also come from the approval of a student led petition to letter in *FIRST* robotics. Cyber Blue was the first academic team eligible to receive a letter and it has paved the way for others.

Aside from students and teachers, Perry Township administrators are eager to grow and promote *FIRST*. The superintendent frequently visits the lab to show his support of the program. In a step to move Indiana to a district model, 234 and its school enthusiastically hosted the inaugural Indiana *FIRST* State Championship. Knowing this was a unique opportunity, administration exhibited immense support to make it a successful event. This also increased awareness of *FIRST* in the community.

Cyber Blue has a notable presence in the community. Through many interactive demos, the team has impacted adults and children of all ages. Team 234 introduced *FIRST* to over 35,000 gamers with a 3 day demo at the annual GENCON convention, which included a presentation on real life applications of robots in society. To promote STEM enthusiasm to a younger demographic, Cyber Blue hosts creative and interactive lab visits, demos, and hands-on experiences. One example of 234's efforts to introduce the principles of science and technology took place at a local elementary school's science fair. Cyber Blue created a comparison of the *FIRST* light bulb to other LED bulbs, promoting energy efficient bulbs while electrifying the community's interest in *FIRST*.

Cyber Blue's global impact can be mapped by following a scale model of the 2011 competition robot that is featured in an exhibit called "MathAlive!" presented by Raytheon. Team 234 was the only FRC team selected by *FIRST* for this interactive science exhibit in 2012. The mini-bot debuted in the Smithsonian and has traveled to 10 other museums promoting

excitement in STEM. This exhibit will continue to travel the next 2 years and is predicted to impact over 4 million people!

Cyber Blue forges strong partnerships and long-term relationships with corporate sponsors, Rolls-Royce, Allison Transmission, and Morris Machine, who have continued their support for many years. In addition to financial support, 234 has developed a strong technical partnership with our sponsors. Each season, Cyber Blue presents a student-led Critical Design Review where the team explains the decision process and robot design to senior professional engineers. They critique the design, ask questions, and offer feedback for improvement. This review shows the sponsors how their investment in the team is paying off while providing a professional learning experience for members. Team 234 published a planning guide to help other teams who are interested in hosting their own review.

Another benefit of the strong relationships with Rolls-Royce and Allison Transmission is the ability for students to earn internships or Co-Ops with these companies. Twenty-nine Cyber Blue students have benefited from this opportunity. Six Cyber Blue alumni are currently employed full time with a corporate sponsor.

Cyber Blue shows its gratitude towards corporate sponsors by supporting their charitable events. Team 234 is able to do so through the Indiana Robotics Invitational (IRI), the largest off-season event in *FIRST*. While fierce competition happens on the field, fabulous charity work happens on the sidelines. Each team in attendance is asked to bring a backpack to donate to the Rolls-Royce Pack2School program. In total, 1,115 backpacks have been donated to assist low-income families in the Indianapolis area. The success of IRI also allows the team to support charities including local food banks and Riley Children's Hospital. Over \$41,000 has been raised to help charities and over \$84,000 have been awarded in scholarships.

Cyber Blue strives for continuous improvement in all aspects of the team by cultivating the interest, understanding, and skills of technology, engineering, and business. Through strong student-mentor partnerships, the team works to promote STEM principles to inspire and prepare students for leadership and a sustainable commitment to *FIRST*.