

Radical Impact

FRC Team 234 – Cyber Blue - Chairman's Essay - 2013

FIRST team Cyber Blue 234 has devoted 15 years to building partnerships throughout FIRST and our community, and we continue to create a Radical Impact wherever we go.

Cyber Blue's tradition is to leave a Radical Impact on schools and teams by fostering and growing FIRST programs. We regularly welcome young teams into our lab, offering build space and teaching them how to program and use machinery. Each build season, we send Indiana rookie teams a care package and note of encouragement. We developed a mock kick-off, an event aimed at preparing new FIRSTers for kick-off and the weeks after. This began as an event for our team and has expanded in the past 4 years to include rookies from across Indiana. We often compete at rookie regionals to support them and meet new teams. We build close relationships with other teams, working together and helping each other with strategy and presentation ideas. We take a special tool cart to competitions, offering assistance, tools and spare parts to teams in need. To help all teams pass inspection and be ready for action, we created a DVD for new teams, preparing them for competition season using tips from our own experience and the expertise of FIRST volunteers. Through our partnership with AndyMark, we sent DVDs to all 2012 rookie teams and many in 2013. To excite younger students about FIRST, we started teams at our elementary and middle schools and continue to mentor these teams and help them stay active.

Our goal is to enable all teams to strengthen and grow their programs. There is a vast array of information available to FRC teams, but knowing where to look can be intimidating, especially for new teams. Recognizing an opportunity to create a Radical Impact, we developed and launched clickFRC.org. This website bundles information from many sources including technical knowledge, travel advice and business ideas in a well-organized format. We regularly update this site to ensure that it remains a comprehensive source of FRC knowledge.

We share all of our work and documentation with other teams. We were one of the first teams to create and publish a business and continuity plan. Modeled after Rolls-Royce, our continuity plan is a living document, outlining risks to our team and how we might minimize their impact. It helped us survive the loss of a major machine last season and even helped the team remain strong despite 3 lead

teacher and 3 school principal changes over the past 5 years. After receiving many requests to help create a business plan, we saw an opportunity for another Radical Impact and developed a basic business plan template. This has been downloaded over 250 times since its publication in mid-January. These, as well as our Chairman's essays, special projects, rookie DVD and design processes are published on clickFRC, our website, and Chief Delphi. Many are on the FIRST website.

For 10 years, we have co-hosted the Indiana Robotics Invitational (IRI), growing it into the largest and most competitive off-season event in FIRST. This event focuses not just on great competition, but also community outreach and service. We host a silent auction of FIRST memorabilia, and with the proceeds, buy and donate groceries for our local food pantry, stocking their shelves with 1000 lbs of food each year. To support Rolls-Royce's Pack to School program, we ask each team to bring a backpack of school supplies for students in need. To inspire others to host their own event, we published a white paper called How to IRI on clickFRC, our website, Chief Delphi and the FIRST website.

We partnered with FIRST to build a 1/3 scale version of our 2011 robot to be part of MathAlive!, an interactive science exhibit. This exhibit kicked off at the Smithsonian and will travel to venues across the country and world for the next 6 years. After we told Allison Transmission about this project, they sponsored the building of a second robot for display in our school and at demonstrations, generating curiosity wherever we go. We are proud to represent FRC in this exhibit as it travels worldwide.

Our alumni continue our Radical Impact with FIRST and STEM fields well after graduation. Many mentor our team or other FIRST teams and work for our sponsors Rolls-Royce and Allison Transmission. Others work for AndyMark, NASA, Show Ready Events and more FIRST sponsors. One even works as a Kit of Parts engineer and game design member at FIRST.

We take pride in the professional reputation that is Cyber Blue. Every year, we prepare a resume and undergo an interview process, much like joining the workforce. We have individual performance reviews every season to discuss our progress and set new goals. Alumni cite this as a valuable experience in preparing them for the future. Using lessons learned and continuous improvement processes patterned after our sponsors, we set high personal and team goals to constantly be a better team. We learn valuable career and life skills that extend outside what is learned in the classroom,

including time management, leadership, teamwork and specialized skills such as machining, welding and web and graphic design.

As we increase the presence and Radical Impact of Cyber Blue and FIRST throughout our school, the level of support is exploding. At freshman orientation, we introduce new students to FIRST and encourage them to join Cyber Blue. We host a new member open house, inviting interested students and their families to our lab to see past robots and learn more about how great FRC is. We celebrate our team's diversity, and our students represent many demographics within our school. We recruit many foreign exchange students, and when they return home, they carry the excitement of FIRST with them. We each recruit school staff supporters, and update them regularly on our season and events. These "sponsors" share their enthusiasm with their classes and promote our team with posters in their room and special supporter shirts. Our new principal, once a Cyber Blue mentor, is working with us to further the progress of academic teams across our school. Cyber Blue is now considered an official academic team, and we are leading the way for others to earn official school letters. Our superintendent supports our team by visiting our lab and honoring us at school board meetings. Our school is under construction, but because of our Radical Impact, the township honored us by literally building around our lab. In May, our school will host the first ever IndianaFIRST State Championship Event. This is IndianaFIRST's effort to increase awareness of FIRST and move our state to a district system, and we are proud to test drive this event.

We sustain long-term partnerships with our corporate and community sponsors who continue their support year after year. Because of our strong relationships with Rolls-Royce and Allison Transmission, 27 Cyber Blue students have been high school and college interns and co-ops, and 8 now work for these companies. When Allison Transmission launched their high school internship program, they specifically recruited Cyber Blue students, and because of our partnership, still give priority to FIRST students. Midway through each build season, we present a student-led Critical Design Review of our robot, where senior professional engineers from our corporate sponsors offer advice and critique our design. We published a design review planning guide for other teams to use. It has been downloaded over 100 times since February. Because of our relationship with Rolls-Royce, we recruited their subsidiary OSyS as our sponsor. After they heard our story, they became excited about FIRST and extended their support to teams in other states. Each year, students visit businesses in our community,

sharing FIRST and Cyber Blue and seeking their support. We keep in contact with these sponsors, sending handwritten thank you notes and emails on our progress. We invite them to our open house and competitions to experience FIRST in action. Taking a cue from FIRST advisor Woodie Flowers to make our grandmothers proud, we name our proud grandmas as team sponsors—team members tell their grandmas about FIRST and Cyber Blue and make a small donation to the team in their names.

We are present EVERYWHERE in our community. Through many interactive demos, we introduce diverse groups across the city to FIRST, including Boy Scouts, inner-city girls, our sponsors, gamers, inventors and all ages of children and adults. To help promote FIRST to sports fans, we built Lefty Circuits, the first robot to successfully throw out the first pitch at a professional baseball game. At the game, we demonstrated robots and shared the FIRST message with all who entered the stadium. Lefty was featured on the front sports page of our city's newspaper. Footage of the pitch and several student interviews aired on local TV news.

We know the importance of exciting the world about science and technology, and have formed a media plan to accomplish this. This plan outlines our specific goals and lets us track our progress in connecting with the media around us to promote Cyber Blue and FIRST. Because of the ways we connect with our community, we have many contacts with the local media and regularly share with them what we are doing. We appear in articles in local newspapers, our school newspaper and Rolls-Royce and Allison Transmission company newsletters. We were featured on TV to promote the IRI, and often appear on the homepage of our township website. We are very active on social media sites as well. Our Twitter has over 650 followers, our Facebook community is growing, and we have increased traffic on our website and clickFRC. We work hard at getting the word of FIRST out to everyone and are excited to share our story wherever we go.

Cyber Blue is proud to represent and share the message of FIRST and expand our Radical Impact throughout our community and beyond.