

2012 Chairman's Essay

FRC Team 234 - Cyber Blue

Cyber Blue has been discovering the balance between building a robot and changing our culture for 14 years. Through partnerships, technical projects, business practices and community outreach, we are working toward our goal of the perfect balance.

We are proud of our newest innovative efforts to create excitement about science and technology. This summer, we threw a history-making FIRST pitch. The Indianapolis Indians, a professional baseball team, challenged us to build a robot to throw the first pitch at a game. Accepting the challenge, we designed and built Lefty Circuits, who threw a strike in front of 8,000 spectators! We demonstrated past robots and explained FIRST and our team. We were thrilled to be featured on the front page of the sports section in our city's newspaper and on the evening news!

We also participated in GenCon, an international convention known as "the best four days in gaming." Over four days, 35,000 people were amazed by our robot demos. We took part in a panel discussion, "Robots of the Future," as well. We discovered that despite our differences, FIRSTers and gamers share a love for similar technology.

We expanded our horizons with a three-day demo at the Indy Mini Maker Faire, an event that celebrates inventions. While there, we displayed Lefty Circuits, helped kids drive our FRC robot and were again featured on TV news. We are actively involved in other demos and events with local groups who are focused on expanding FIRST in Indiana.

At our city's Miracle Mile Parade, we hosted a booth where kids could play with our robots and the community could learn about FIRST. We and our robots were featured in the parade along with community members, business leaders, professional sports teams and our mayor!

Each summer, we visit camps for elementary and middle school students to build excitement about science and technology. At Girls Inc., an organization empowering girls to succeed, our girls led a demo showing that women can be leaders in STEM fields. We visited Camp Invention, a national STEM enrichment program, where elementary kids were excited to drive and compete with our robots.

We invited Boy Scouts to our lab to help them complete a robotics merit badge. We helped a Cub Scout pack kick off their year with a robot rumble. They were so excited that they invited us back for more fun! Throughout the year, we mentor robotics teams at elementary and

middle schools. The FIRST excitement continues as many of these students become Cyber Blue members.

We recruit new members by displaying our robot at freshman orientation and talking about how much fun FRC is! We host a New Member Open House, where students and parents can tour our lab to see what we're all about.

We show pride in our international connections by actively recruiting foreign exchange students. We have had 11 students from 10 countries on three continents, and we maintain contact with several of them. These students carry their love for science and the excitement of FIRST home with them.

FIRST has impacted us by providing opportunities to learn valuable life skills. Conducting ourselves in a professional manner, we prepare resumes and participate in an interview process each year. Having gained experience with job applications and interviews, our alumni recognize this as one of the most beneficial aspects of Cyber Blue.

From our increased focus on science and technology, we are changing the culture of our school, and students are more excited than ever before! We helped initiate STEM education in our school through Project Lead the Way classes. We create great interest with promotional videos on our school announcements. Our Teacher Sponsor initiative links each of us with a teacher, creating opportunities for us to tell them about our progress. We help our school with repair projects using unique technical skills like welding. For the first time, we were a part of our school's Homecoming Parade. Before the Championship last April, we were featured in a school-wide pep session, usually reserved only for sports teams. Our school newspaper follows us closely and features us regularly.

We are devoted to our school's branch of Invisible Children (IC), a national organization using American youth as the voices of central African child soldiers, the victims and weapons of war. We hosted a fundraiser allowing students to race our robot against the clock and donated all of the proceeds to IC. Each spring, we are the biggest sponsor of the IC Walk-a-Thon, where we join supporters to walk from our school to downtown Indianapolis. "Robotics is my favorite thing at this school...so it's really great to have them helping us out," said IC sponsor and teacher Ms. Sheehan.

Our school board is always excited to see our latest projects, and we are often honored at meetings for our leadership at competitions and in the community. Several mentors have been recognized for their dedication. Our township often highlights our activities on its website.

Cyber Blue is a role model for other teams and is dedicated to sharing the knowledge we've gained from our experiences. We were one of the first teams to create and publish a business plan. Using our sponsor Rolls-Royce as a model, we took our plan a step further and developed a continuity plan, which identifies team risks and ways to overcome them and is updated annually.

We have completed tests to evaluate belt and chain drives, swerve systems and wheel traction capabilities. At the Indiana and Championship Forums, students lead presentations on our technical projects and business practices, including our design process and business plan. We publish our projects and team documents on our website and Chief Delphi. We even received a Tweet from another FRC team saying, "Read through your business plan and our whole business sub-team was AMAZED! Awesome job, Cyber Blue."

We annually host a mock kick-off, an event aimed at preparing new FIRSTers for kick-off and build season. This began as an event just for our team and has grown to more than 100 participants from across the state.

We were selected by FIRST to do the BETA test for the 2012 control system. After testing and collecting data, we sent results to FIRST and invited teams to an information session to share what we had learned.

We know the importance of building strong relationships and assisting other teams within the FIRST community. Knowing their first build season may be challenging, we send care packages and good luck notes to all Indiana rookie teams. This season, three rookie teams worked in our lab. We extend support to veteran teams too, helping with welding and award submissions. We also host groups wanting to start new teams to excite them about joining the FRC family!

Expanding these initiatives, we created a DVD for new FRC competitors. Almost nine months in the making, this video contains helpful information about what new teams might expect at competitions, such as inspection, queuing and alliance selections. It contains tips from our own experience and the expertise of FIRST volunteers. Through our partnership with AndyMark, these DVDs were sent to this year's rookie teams.

When help is needed, we are there to lend a hand! We offer help to FRC staff, act as VIP tour guides and help take down the field after competitions. Following another team's example, we make goodie bags with thank-you notes to give to event volunteers in appreciation of their time and dedication.

Cyber Blue balances strong year-round partnerships with our sponsors and community. We have created a long-lasting partnership with our corporate sponsors. Founding sponsor Rolls-Royce and nine-year sponsor Allison Transmission support us financially and provide mentors and internship opportunities. Both companies support our student-led Critical Design Review, where we present our robot design to a group of engineers who critique and provide input. Through this, we learn to prepare and present our ideas, answer challenging questions and defend our work. Benefiting from these partnerships, 24 team members have been recruited as high school or college interns, and seven have been hired full-time. When Allison Transmission launched their high school intern program, they specifically recruited Cyber Blue members.

We have a direct connection with over 60 community businesses. Each student shares the excitement of FIRST with these companies, describing our program and seeking financial support. To maintain a strong partnership, we write thank-you notes and invite them to our community open house. We feature them on our website, sponsor poster and pit display. Taking a cue from Dr. Woodie Flowers to “make our grandmothers proud,” we tell our grandmas about our program and include them as our sponsors. We make sure everything we do will make them proud.

We annually co-host the Indiana Robotics Invitational (IRI). 72 of the top teams in FRC travel from around the globe to compete. The IRI is a great competition on the field, but we make it much more. Partnering with Rolls-Royce, we ask teams to donate a backpack of school supplies for students in need. Through a charity auction of FIRST memorabilia, we raise money for a local food pantry and have delivered over 3500 pounds since 2008! College scholarships funded by corporate sponsors and members of the FIRST community are awarded to seniors. We published “How to IRI,” now on the FIRST website, to encourage others to host their own event.

Our impact has motivated over 40 of our alumni to volunteer throughout FIRST. 15 of those have returned to mentor teams across the country, inspiring students as Cyber Blue inspired them. Others work for FIRST, NASA and other sponsors.

From sports fans to gamers, wide-eyed kids to FIRST veterans, we make a positive impact wherever we go. Between technical projects, business practices, helping others and making science and technology fun, Cyber Blue has found the perfect balance.