

Impact Essay '25

At Cyber Blue 234, our impact can come in mighty waves. For the past 22 years, we have co-hosted one of the largest off-season events, the Indiana Robotics Invitational (IRI), alongside teams 45 and 1024. IRI brings together different teams from around the globe, each with its own unique culture. When hosting this event, we see these different cultures come together into one community. IRI is an event we hold dear to our hearts when hosting, not only because of the community it brings together but also because of the charity it brings. At IRI, we carry out an auction where the teams donate and auction off anything ranging from a basket of special treats from their place of origin to apparel. In 2024, the auction raised around \$6,300. With every donation, teams help steer a powerful current of support to the Riley Hospital Adolescent Behavioral Health facility. Since starting these auctions, we have collectively raised almost \$90,000 for charity. We also ask the teams to donate backpacks and school supplies as a part of their entry fee. The backpacks and school supplies flow back into our community, providing aid to the elementary students at Title 1 schools. Since helping start IRI, we have given over 2,000 backpacks, and through our event sponsors, they have given \$126,000 in scholarships. Not only does IRI help with charity, but it also creates inspiration among participants in the event through the many different teams coming together and sharing their different ideas, fostering inspiration and innovation. For example, Cyber Blue member senior Deon Davis, who is on the CAD sub team recounts meeting a team at IRI his freshman year and being inspired by them. "I was speaking with team 4488 about a swerve drive I've never seen before, and that was like a wake-up call about how I needed to get better. It really inspired

me to be more creative," Deon said.

While our impact can come in big splashes like co-hosting IRI, it is important not to overlook other impacts. Sometimes, those impacts come as more quiet ripples, small but constant moments of connection, mentorship, and knowledge that we foster. These ripples, though subtle, still change the current and leave a lasting mark, proving that even the seemingly smallest actions can create a difference that echoes, that makes a community, that makes the FIRST community.

Mentorship is one of the most significant ripples. This can be seen through Kevin Kelly, who started our team 27 years ago and is now one of the (10) members who teach us, "Kevin taught me to think through a lot because as a freshman, I didn't really know how to do much. The most valuable skill he taught me was critical thinking, which, in my opinion, is the best skill someone can learn," said senior Justin Boyle, who is on the manufacturing and assembly sub-team. Kevin's mentorship has influenced Justin and four other members on the team to mentor the middle schoolers. This has taught us that teaching and learning go hand in hand. With guidance from mentors like Kevin, we have been able to translate our knowledge better onto middle school teams. Eighth-grader Quin Barton said, "They taught me how to do wiring management and how to build from the base up and have a plan." Our impact on middle schoolers goes beyond simply learning the mechanics of a robot; it also connects to life skills. Eighth-grader Angela Gonzalez has seen the impact of the high school mentor in more than just learning mechanics. "They've taught me a lot of communication skills and to be confident in myself." Angela said. Deon also mentors middle schoolers and reflects on his impact on them. "I thought I would teach some engineering, but they learned how to be a better person," said Deon. We always make sure connections are built

with them to help cultivate a community and space where everyone can feel comfortable sharing ideas, as we learned from our mentors at the high school. "Humor is how you connect with them and make them learn the best. You have to become a friend to become a teacher and form a better connection," said Deon.

These ripples we make within the FIRST community create tides out into the world, creating an impact by doing as FIRST says, "*We apply what we learn to improve our world.*" Senior Ayla Hubbard, a programmer on our team, is a great representation of this sentiment. Ayla is enlisting in the Navy as a nuclear technician, and she will be running a nuclear power plant on an aircraft carrier or a submarine as she serves our country. "The biggest thing I'll apply is just being part of a team, working with people, and being okay with not knowing everything and learning," said Ayla. Being a part of Cyber Blue and the FIRST community has helped Ayla understand more of herself and given her tools to discover more opportunities in her future "I've never been part of like a big club I didn't do sports. I was never athletic. So being a part of something was just special," Ayla said. While some people know exactly what they want to dive into after high school, others on our team are not exactly sure. Yet, what they know is that they can take the skills they've learned from robotics and apply them elsewhere. Let's take a look at another one of our programmers, Elliott Bunnell, who plans on doing something with programming but isn't quite sure about the specifics. He is certain that with the skills he has gained from robotics, he'll have the tools to aid him in both his career and life. Perseverance is the most treasured skill he's learned. Elliott recalls [the moment he truly when he learned persistence and the battles of programming, which was when figuring out PathPlanner. "It was just so frustrating every day at robotics. I would go out there, I

would try to run the code, and it would just do nothing," said Elliott. Even with the frustration, Elliott continued to work on his code, collaborating with mentors and other team members, and eventually, he cracked the code. "Figuring out PathPlanner helped me because that was the hardest thing I've ever done. If I can do that, I know that I can solve other problems in the future that I can't figure out right now, I just need to give it more time," said Elliott. Even after high school, some of our members still want to continue to be a part of the FIRST community and even mentor a team. "I want to either start a FIRST team or find a robotics team. I just want to keep inspiring the future generations to keep doing robotics and to keep getting into technology," said Elliott.

Creating waves of inspiration for future generations is one of our biggest goals at Cyber Blue, especially for women in STEM. We know that navigating these waters can feel overwhelming, with fear acting like a current pulling away potential due to STEM being a male-dominated field where women can struggle to feel represented. This is why we partner with Girls Inc., a non-profit that helps young women find their strength to surf the waves of opportunity in STEM, no matter their economic standing or race. Over the last 10 years, we have attended their summer camps and STEM days, like in the summer of 2023. At the summer camp, we showcased our passion for STEM and FIRST to the 55 girls who participated in the summer camp, this encouraged them to create their own waves of passion. During the camp, we curated the breakout sessions to be robotics-based, which included programming stations, a racecourse with our demo bot, and the opportunity for the girls to drive our competition robot. Sophomore Sierra Contreras, who is a part of the manufacturing and assembly sub-team, recalled the impact of partnering with Girls Inc. "I remember we

were talking to all the girls in one big discussion circle, and the girls were asking questions and seemed excited and interested in what we had presented to them throughout the day. They were especially intrigued with the design process and the robot in general. It was special to me seeing them excited about STEM," Sierra said. Our dedication to supporting young women in STEM doesn't just stop at Girls Inc. We created and hosted an all-female-focused off-season event called Indy RAGE (Raising Awareness For Girls in Engineering). This event was made because we wanted to show young girls that a career in STEM is not only encouraged, but possible. Recent graduate Lauren Miller has reflected on this Indy RAGE and how it shaped her. "Seeing so many smart women taking leadership roles on their team was inspiring," said Lauren.

At Cyber Blue 234, we understand one core thing, which is that you can't make an impact without first throwing your contribution out there. Our contributions are like stones thrown that skip across the water, creating ripples—each skip of a stone represents an action, a lesson, a moment of inspiration. Whether it's mentoring younger students, hosting IRI, or advocating for women in STEM. Each stone skipped sends ripples outward and creates an impact that extends far beyond what we can see. The inspiration sparked at Girls Inc. and Indy RAGE encourages young women to pursue STEM, setting off waves of change in an industry that needs their voices. The resilience we have developed through late nights of coding and problem-solving doesn't stay confined to our workshop; it follows us into our careers, our communities, and the lives we touch along the way. The knowledge we pass down to middle school students doesn't just help them build robots. It builds their confidence in their problem-solving skills and aids in their future endeavors. These ripples don't fade they merge, expand,

and spark new waves in places we may never even witness. At Cyber Blue, our impact isn't just about the waves we make today — it's about the endless ripples we set in motion for the generations to come.