

## 2014 Chairman's Award Essay

The L&N STEMpunks is a homey team.

In 2011, the L&N STEMpunks was founded under a simpler name: L&N STEM Academy Robotics. Our school had only 160 students in it, composed of entirely freshmen and sophomores. We had just launched the school that year, and we were proud to be part of it from the very beginning.

Our initial group was composed of less than ten students. We were a very minimalistic team. We had nobody working on business. In many ways, we didn't know that there was anything to robotics outside of building robots. Many of us joined the team because that is exactly what we had wanted to accomplish: we wanted technical skills. There was no established team to join, no established traditions. All we had was our team sponsor Frank Wood, our principal Becky Ashe, and each other.

We hit the ground running. Mr. Wood suggested that we start our first project through participating in the Veteran's Day parade. We built our first crude robot, nicknamed "VetBot," out of aluminum, an old RC car, and an upside down mixing bowl. We taped a printed picture of an American flag to its chest. VetBot had only one purpose. As we were walking through the parade, it saluted the veterans as we passed on our float.

We all remember those days fondly. We remember while we were building that darn thing that if anyone would make a mistake, nobody could live it down. We still hear about it today. But it's all in good fun, like how good friends tease each other. We remember how much it took for us to balance the arm so that a tiny servo used in a model airplane could work. We tried so hard on that little thing, and it was so crude. But it was a country kind of crude that we were proud of.

That occupied our entire first half of the year. We learned together and really learned each other. We were a tight band of dedicated individuals who were ready to work well into the evening, even as the days grew shorter. It was not a bad time to be part of L&N STEM Robotics. Coming out of the school, joking around with the friends you had made from robotics, feeling the chilly air and seeing the stars above at night.

The first competition was a bruiser. We didn't know what we were doing. Our mechanism for collecting the balls was a hoot. It was made out of two plywood boards, a paint roller, and a firm piece of hard plastic. And it worked!

In 2012, the team grew exponentially. Initially, we struggled with our growth. We were a second year team, and the majority of the team was still freshmen and sophomores. Nobody had any experience in managing or organizing a group of thirty or more, whether it was school related or otherwise. We were young and lost.

But we still managed to get a robot to competition. We had new members who had transferred to our school from places as far away as Oak Ridge High School from the next county over. We had excited young lads who were part of other high schools in the county with no robotics club, who joined our club just to live the experience. We had a large group of highly dedicated individuals who were willing to work late on the robot.

This is the first year we also had any sort of business team. We only had one man on the job, but it was progress. We started to take into consideration the other parts of FIRST that go beyond making a robot. As a whole team, we realized that there were more things that we could do that we had never considered before. That year was the first year that we had people actively

participating in social media, or taking pictures and recording the work sessions. The L&N Robotics team was really starting to come out of its shell.

In 2013, we added another new slew of members, including our first group of really dedicated female members. More than just having women on the team for the first time, we also had a large swath of juniors who had been on the team for two years already. We now had a dedicated group of experienced leaders to lead a team with an increasing amount of freshman. Due to faculty changes, we also acquired new team sponsors. Eric Stansberry and Collin Napier became the new team sponsors for the L&N STEMpunks. Going along with the essence of change, the L&N STEMpunks underwent a whole rebranding process. This lengthy ordeal of redefining who we were and what it meant to be a STEMpunk took up much of first few months of the season.

It was a tumultuous time to be a STEMpunk, either new or returning. Now that almost everyone had a job regarding some element of business, the business team grew rapidly. Most people fell into one of the categories, as well as retaining their position as part of the build or the programming team. With more new members, how exactly we would decide to organize ourselves was a whole new challenge.

But this year brought a whole new level of excitement never experienced in the history of the L&N STEMpunks, under any name. We were more than ready to get back in the ring for another build season. Now our robot design is more creative and successful than ever. We spent the first week of the season prototyping designs and seeing what would work best. It was actually its own mini-competition of sorts.

The history of our team reveals a number of crucial things to understand when learning about the L&N STEMpunks. We come from a background of rugged individualism and creativity. As young members, we had no previous experience to draw from. We had no seniors who had previously participated in clubs like the Technology Student Association, whose backgrounds would help us. We had no leadership structure, being all equals. We were thrown out in the dark with very little direction, and had to find our own way. We discovered things about how we thought that we would have never discovered if we had come into an established well oiled machine.

This individualist and creative ideology still remains with the STEMpunks today, though we better resemble an established team than ever before. We are still the herd of cats we were in freshman year. We love to explore and find things out for our own. We dislike people telling us what to do and how to do it. We will do our own research and discover our own paths as long as we are given that opportunity.

The older members of the team have effectively passed along this ideology to our younger members through our daily interactions. The older members come into the lab in the evening and sit down next to each other, talking about what they hope to accomplish in the coming build session. We involve the shy members by asking them questions. Even though it's a large team, we know everyone by name, and we're friendly.

The mentors open that creaky brown door in the front of the lab and greet the members of the team with a warm hello. The rest of the team turns to greet the new arrival, knowing that soon the work day will begin. We have all been working on our projects on a daily basis, so we

don't need to look at a piece of paper to tell us what's next on the list. After a short rest from that day's school classes, it's time to work.

We split off into each of our separate sub-teams in our own corners of the building. The members of the build team all walk to the back of the lab, open the yellow safety gates signifying the start of the build session, and get right into it. The members of the business team head to the nearest computer lab to camp out on the computers and talk to each other in their own quiet place. The programmers prefer to stay right where they are, in the center of the action, slaving away at their code hour after hour.

The camaraderie that this process builds is incredible. Any person who never has the experience of working together in close quarters with friends they've known for years is really missing out. It's a different experience than school altogether, since we're there voluntarily for a common purpose: to build a robot, and help the team in any way we can. We would have never had this opportunity without FIRST.

For the rest of the day, we work on our projects. We talk to each other when things are quiet and yell at each other when things get loud. We stomach the roars and whirs of various machine equipment, since we know that just comes with the territory. As a team, we have all gotten a sixth sense for the noise level. When things are too quiet or too loud, we know that is the time to offer our help. Being all friends, we're not afraid or ashamed to admit when we stripped a screw for the third time. There is no judging at the L&N STEMPunks.

The next two hours fly by. We hardly even notice the sun setting, our stomachs rumbling, or our eyes growing weary. All too quickly, it's 6:45 PM, and we have to clean up. We make sure our tools and parts are in order, that we logged out of our computers, that we gathered all our

equipment. We reconvene in the hearth and chat about what we all accomplished that day, and what's left on the plate for tomorrow. Jokes and laughs are exchanged in equal measure.

Finally, it's time to leave. The work for that day is done. We put on our coats, take our backpacks, and walk out that old creaky door. The same cold air hits the faces of everyone, reminding us that while many things change, many also stay the same. The lights click off, and we're alone in the darkness of the cold winter night. A familiar message rings out, "Everybody ready? I'm locking us out. Last chance to grab something you forgot." Silent approval gives him the go, and the creaky door comes to a close, already waiting to be opened to begin a new build session the next day.

We are the L&N STEMpunks.