

FIRST® Helps Student Find a Road to Success



Photo by AFJ Photography

AT-A-GLANCE

Background

When teachers at a Wisconsin high school started a *FIRST*® Robotics Competition team, they selected sophomore Evan Rotter as a founding team member. He was not a strong or motivated student, but he had a champion in Lead Mentor and robotics teacher Adam Thiel, who recognized his passion for mechanics in class and believed he would be an asset to the team.

A Pathway Through *FIRST*®

Mr. Thiel was right. Evan became a team asset and a leader. He learned how to collaborate and work under deadlines. *FIRST*® gave Evan the motivation he needed to improve his grades and figure out a post-graduation plan. The team Mentors even awarded Evan the team's Senior Scholarship. Channeling his passion for cars and skills he learned through *FIRST*, Evan enrolled in a technical college to become a Ford Technician, and became a top student in the program.

In Their Own Words

This case study shares how Evan found his path to a fulfilling career through his *FIRST* team and Mentors, in the words of Evan and Mr. Thiel.

Evan Rotter, *FIRST*® Alum, *FIRST*® Robotics Competition Team 4786 "Nicolet FEAR" [Glendale, Wisconsin]

I was a founding member of my high school's *FIRST*® Robotics Competition team, "Nicolet FEAR." At the end of my last season on the team, as I was about to graduate and go to technical school to be an automotive technician, I received my team's Senior Scholarship. The Mentors award it to one graduating senior. Receiving the scholarship was one of the most surprising experiences of my life; I was the *last* person I thought would get it. When I joined the team, I wasn't what you would describe as a "model student." But *FIRST*® was a huge game-changer for me. Robotics and especially my Mentors got me to change my overall outlook on life. If it wasn't for robotics (and my mom, of course), I wouldn't be the person I am today.

In school, I wasn't a good student, and I didn't try very hard. But I was interested in my engineering classes. When my school started a *FIRST* team my sophomore year, I wanted to build a robot, but I had no idea what I was getting myself into.

My first year, I was a control director, working mainly with the electrical team. I didn't know what I was doing, but I don't think anyone really did. I just loved the challenge of the team. I had always liked being hands on, so for me, the robotics team was an achievable challenge. It was something I knew I could do if I put in the effort, so I was very motivated. Each day, the littlest things that I accomplished excited me.

I didn't travel to competitions my first two years because my grades were not good enough to be taken out of school. Senior year was the first year ever that I got good grades. My Mentors always believed in me, believed that I could do well. I was motivated to turn my grades around in large part because I wanted the full experience on the team. During build season, I was there working on the robot every day, as late as I could be. I really wanted to see it through. And I wanted to prove to myself that what people were telling me was true.

My senior year, I became the manager for the electrical team. I always felt I had natural leadership abilities, but I had never used them in a way that was worthwhile. Being in a legitimate position of leadership and having people whose success I was responsible for taught me how to be a proper leader. Under my leadership, we changed the entire approach to the electrical board, ideas the team is still using today.

"I'm now studying at a technical college to be a Ford Technician ... a two-year program in which you alternate between school and a job at the dealership ... Everything that I am doing now in class, I had learned previously on my robotics team."

— EVAN ROTTER, *FIRST*® ALUM, *FIRST*® ROBOTICS COMPETITION TEAM 4786 "NICOLET FEAR" (GLENDALE, WISCONSIN)

My grades had been bad for so long that I didn't think I would even be allowed to travel, so I didn't go out for a driver position. Our Lead Mentor, Mr. Thiel, sat me down and had a conversation with me about why I haven't even applied to do the driver tests. I was down on myself, but he convinced me to go for it.

The first day of competition was overwhelming, especially because our robot wasn't finished yet. But once we got the robot out there, it was awesome. Not only was it my first time traveling with the team, but I was right there playing the game. My teammates and Mentors said, "Evan, we haven't seen you not move so much as when you are driving the robot." As a kid, I was always laser-focused when I played with remote-control cars and helicopters. It was the same thing when I drove the robot.

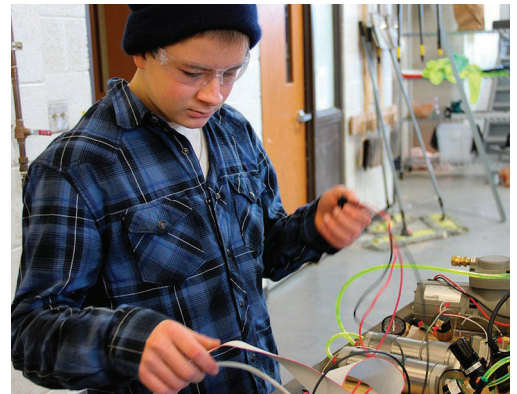
The Senior Scholarship is announced at the end-of-year banquet. As Mr. Thiel was describing the winner, my friends were like "Evan, that's you!" I was like "No way! It's not me." Mr. Thiel rarely shows a lot of emotion or gives an undeserved handshake or high five. But when he was announcing it, he got choked up. He called my name and gave me a hug. It was an honor.

I never knew what my plans were for after school. All the other kids in robotics were like, "This is what I want to do," and they were succeeding. It wasn't until halfway through my senior year I figured out what my plan was. I'm now studying at a technical college to be a Ford Technician, through a program called Comprehensive Automotive Technology. It's a two-year program in which you alternate between school and a job at the dealership. I was always into cars, but I didn't know that's what I would end up having a passion for.

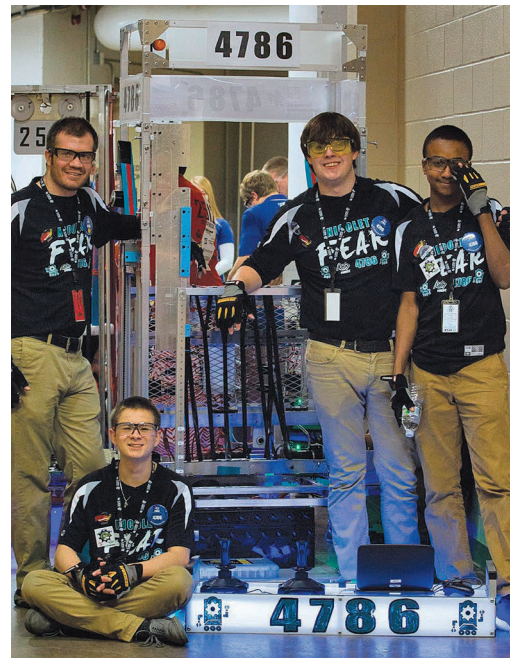
Everything that I am doing now in class, I had learned previously on my robotics team – it's just now a little more complex. I was recognized for getting the highest score on the Ford Certification Test in my Electrical 1 class and my Auto Accessories class. Overall, I enjoy what I do. I've never been one to look very far with future goals, but I want to own my own shop one day, and have a collection of cars I can work on.

FIRST was easily the hardest thing I've ever done. It was my biggest learning experience – more so than schooling ever was for me. I learned how to be a team player and have responsibilities. Having a hard deadline was a huge thing. Yeah, in school, homework has a due date, but most teachers accept it late. But in *FIRST*, there's six weeks, and then it's Stop Build Day and your time is up. It was a big eye opener.

Being on a *FIRST* team is a huge responsibility, and takes focus and effort. For students who are interested in joining a team, I tell them, if you want to have one of the best experiences of your life, do it. It will also be one of the hardest.



Evan Rotter works on a project in the workshop of his *FIRST* Robotics Competition team, "Nicolet FEAR."



Mentor Adam Thiel (far left), Evan Rotter (second from left), and students from "Nicolet FEAR" pose with their robot.

“I think the value of *FIRST* for a student like Evan, who realized he can forge a path that enables him to do what he wants in life, is just as great—or even greater in some ways—than a student who is going on scholarship to an Ivy League school.”

— CRAIG RIGBY, MENTOR, “NICOLET FEAR”;
ADVANCED MARKET & TECHNOLOGY
STRATEGIST, JOHNSON CONTROLS

As Told By Adam Thiel, Lead Mentor, *FIRST*® Robotics Competition Team 4786 “Nicolet FEAR” [Glendale, Wisconsin]

“Nicolet FEAR” was founded by me and three other teachers at Nicolet High School in 2012. That first year, we hand-selected every student on the team based on academics and with a model for sustainability across class years. Evan, a sophomore, was in my robotics class at the time. He was not the most serious student, but he had a great mind for mechanical systems and wanted to learn about pneumatics and electrical. When we produced the list of 35 kids with Evan’s name on it, one teacher asked me, “Are you *sure* you’re going with him? He doesn’t do anything in my class!” But I honestly believed based on what he was passionate about that he would be an asset.

His sophomore year, he was not where he needed to be, academically. He was a bright kid, but he didn’t understand the value of education and what it could do for him. At one of our early team meetings, Evan was having problems with the concepts of pneumatics, but I didn’t have time to sit down with him. So I handed him a textbook chapter on the topic. He sat there and read for two hours. Evan’s English teacher took a picture of him, saying, “He does *not* read in class, and here he is reading a textbook.” It just goes to show what happens when a kid is engaged. It was flat-out evidence that the team was good for Evan, and good for lots of kids.

It took a couple years for him to really get there. Evan didn’t make the travel competition for two years because of our rules on grades and being allowed to travel during school. But his senior year, it all snapped into focus, in terms of where he saw himself going: He wanted to go to school to be a mechanic. He set a goal.

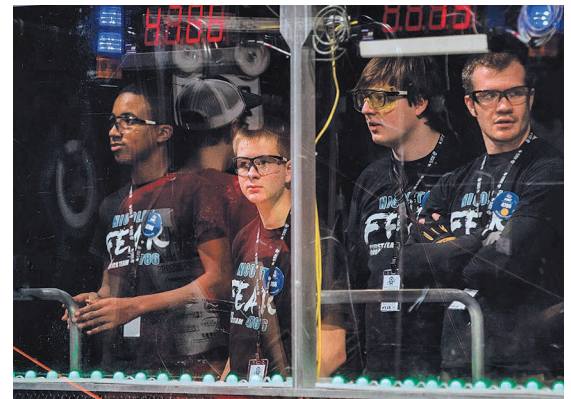
Evan became the first student at all our leadership meetings. He was the first to tell his peers, “If we want to do better, we all have to be better” – ideas adults were trying to convey. He always had a natural charisma among his peers, but he was a little self-centered at the beginning. His senior year, he had a vision for the robot, but he didn’t *do* it, he *taught* it.

He became a driver on the team, which meant he had to communicate with other teams at competitions. He’d be the first person to congratulate, or to apologize if something went wrong. He was such a great ambassador for the team that a couple other Mentors came up and said, “Hey, your driver is one of the nicest kids.” Evan would tell our team, “We are a better team when our robot does what we say it’s going to do than when it doesn’t.” It’s a really high level of thinking and engagement that I’ve seen in only one or two kids, ever.

At the end of the year, the teachers award a Senior Scholarship to one senior on the team. Evan was part of a strong senior class, but he won a tiebreaker for the scholarship based on statements made by his peers about how much he taught and supported them.

FIRST impacts kids who are not destined for what most of us consider a traditional education. Evan is going to be a very successful member of our society, and I don’t think it would necessarily be true if he hadn’t been involved with us.

FIRST needs to be in many schools because there are Evans in many schools. I’m concerned about what’s happening to those Evans who aren’t getting this program.



The “Nicolet FEAR” drive team competes at a *FIRST* Robotics Competition event.