VEX MN Newsletter

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Newsletter Contents

2023 MN VEX Robotics State Championship 1
2023 VEX Robotics World Championship 2
SCTCC VEX Robotics STEM Scholarship 3
Feature Article 4
The Impact 5
VEX MN Alumni Spotlight 6
VEX MN Social Media 6

2023 MN VEX Robotics State Championship

The Minnesota VEX Robotics State Championship was held at the St. Cloud River's Edge Convention Center on March 2-4, 2023. Elementary through high school students on one hundred ninety-six teams competed that weekend. Forty-three teams received an invitation to the VEX Robotics World Championship in Dallas, Texas.



State Championship Quick Facts

- **196 Teams**
- **43 World Invites**
- **1,520 IQ Livestream Viewers**
- **7,756 VRC Livestream Viewers**
- **Over 525 matches played**

2023 MN VEX Robotics State Championship

All of VEX Minnesota's Platinum Sponsors receive a booth at the State Championship to showcase their company. Check out their booths below!











2023 VEX Robotics World Championship

This year's VEX Robotics World Championship will be held in Dallas, Texas, April 25 – May 4. Over 3,000 teams from around the world will be in attendance. Tune into the livestream at vexworlds.tv.

April 25-27 – VRC High School
April 27-29 – VRC Middle School
April 30-May 2 – VIQC Middle School
May 2-4 – VIQC Elementary School

VEX ROBOTICS WORLD CHAMPIONSHIP
2023
PRESENTED BY
NORTHROP GRUMMAN FOUNDATION
REC FOUNDATION

SCTCC VEX Robotics STEM Scholarship

During last year's State Championship, St. Cloud Technical & Community College announced the college would be awarding a full-ride scholarship to a high school senior in 2023 who would be pursuing a STEM major at SCTCC. After reviewing the many applications received, the SCTCC Foundation decided to award THREE full-ride scholarships.

Owen Kiffmeyer is a senior at Tech High School in St. Cloud and will be majoring in Water Environment Technologies at SCTCC.

Hunter Bruckhoff is a senior at United South Central High School in Wells and will be majoring in Computer-Aided Mechanical Design at SCTCC.

Austin Schultz is a senior at Tech High School in St. Cloud and will be majoring in Robotics and Automation Technology at SCTCC.



ST. CLOUD TECHNICAL & COMMUNITY COLLEGE FOUNDATION

Feature Article

Growing from forty-five teams when the VEX Robotics program started in Minnesota to four hundred twenty-three teams this year could not have been done without the help of our amazing VEX Minnesota coaches. Our coaches come from a wide variety of career paths – some are teachers, others work in the Manufacturing industry, and some are community members who work in a completely different field but realize the importance of VEX Robotics. Two of VEX Minnesota's coaches were interviewed to learn more about how they got started with the program.

Paula Mortenson is a College Prep Chemistry and College Physics teacher at Southland Senior High School in Adams. When she started coaching VEX Robotics teams ten years ago, Paula had one team. Now, she coaches eight teams at the VEX Robotics Competition level – four Middle School and four High School.

Robert Fay is a TechForum Manager at Digi-Key Electronics in Thief River Falls. Robert was on a VEX U team while he was a student at Northland Community and Technical College. He now coaches several VEX IQ Challenge teams.

How did you get into coaching VEX Robotics teams?
Paula: "Riverland CC [Community College] offered me a free kit if I would agree to coach and I said yes as I knew there was a whole group of students that I wasn't reaching. I've taught College Prep Chemistry and College Physics and have many students going on to engineering/medical fields. However, I knew there were some super intelligent students that didn't like math applications yet had a ton to offer so when this rolled by me it seemed like a great fit. Now, I have kids that do both, or one or the other and we have a high number moving on into all STEM fields."

Robert: "My start in VEX started with VEX U at Northland Community and Technical College and in addition to being a student on the team I got a chance to volunteer at high school events across the state as well as attend some promotional events at school and other venues with my college coach Andrew Dahlen. After graduating from college I started teaching some afterschool VEX IQ camps at my local elementary school. Once students started learning about the VEX IQ I was asked about starting a team. That has now spread to several teams at 2 elementary school and our local middle school."



Southland Robotics teams at the 2023 State Championship



One of the teams Robert coaches accepting the Excellence Award at the 2023 State Championship

Feature Article

How have you seen students benefit from being on a VEX Robotics team?
Paula: "Due to the amount of time that my students want to dedicate to the process, in addition to after school practices, my administration has allowed me to begin an engineering applications class that is completely open ended. Students may now work on the robots during that class and it's open to the rest of the student body. In that class we offer CAD curriculum, structure basics, documentation instruction, and programming on practice bots and competition bots both-the best part is the real life applications they are practicing. The students on my teams are highly engaged and the competitions seem to drive and offer up a level of motivation that is exciting to see as an educator. I've had alumni that are engineers come and speak in my classes and they have been blown away by the robotics team members sharing their robots and explaining to them what is going on. These students are going to be extremely marketable as they have such a solid foundation and have other soft skills that companies are looking for."

Robert: "The biggest thing I notice is the change in abstract thinking. Many of my students start in 2nd-4th grade and when they first attend a camp or practice it is a real struggle for them to build or even think of items to build without step by step directions. Then you turn around and they have been in the program for 3 or 4 years and all of the sudden you as the coach are asking them "How did you do that?" Its an amazing feeling to see that growth in a student and know that you were able to help to bring out those abilities in a student."

The Impact

VEX Robotics has impacted many students' lives. Since the 2011-2022 season, Minnesota has had 2,702 registered VEX teams. Worldwide, forty-four percent of VEX participants are female. This number has continued to grow since the Robotics Education & Competition Foundation partnered with VEX Robotics to start the Girl Powered initiative in 2016. In the 2021-2022 season alone, there were more than 21,000 VEX teams from over fifty countries.



VEX MN Alumni Spotlight



Luke Kroska is a current student in Ridgewater College's Ag Power and Equipment Technician program and will be graduating in May. He is currently working at Arnolds in Willmar, Minnesota, as a Claas Hay and Forage Equipment Service Technician. Luke competed on a VEX Robotics team throughout High School and says, "Vex has shaped me into the man I am. Vex has showed me how much I love physically working with my hands. It has led me down the current career path and I am not going to look back. I have enjoyed every second of it. All my current success can lead back to my days in robotics and vex. It brought out the real me. I will forever be a proud alumni of Vex MN."

Jacob Scherzer is currently a fifth-year senior at North Dakota State University. He is majoring in Mechanical Engineering and minoring in Robotics. Jacob, with the help of friends he made while competing against in high school, founded the NDSU VEX U team in 2018. Last summer, Jacob had a Controls Engineering Internship at TEAM Industries. He has also completed an engineering Co-op with Bobcat where he was a tooling engineer coop designing weld and assembly fixtures for an assembly line. Jacob says, "Vex was what got me interested in robotics and engineering in the first place. Its given me valuable skills in problem solving, team work, and leadership, and has just been a fun activity to partake in throughout the years. "



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