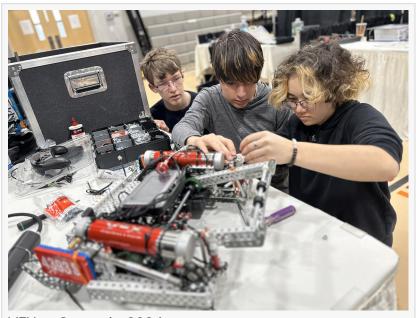


MSSM's VEX Robotics Teams Build Pathways to Innovation and Leadership

MSSM's VEX Robotics Teams excel in STEM education, fostering creativity, teamwork, and leadership through hands-on robotics competitions.

LIMESTONE, ME, UNITED STATES,
October 10, 2024 /EINPresswire.com/ -MSSM, a selective, public magnet
school in Maine, is renowned for its
advanced STEM and humanities
programs, attracting some of the
brightest and most academically
motivated high school students from
around the country. At the forefront of
its STEM offerings are its <u>VEX Robotics</u>
Teams, known collectively as Team
4393, with different letter suffixes



VEX at States in 2024

distinguishing individual robots within the team. MSSM's VEX Robotics teams exemplify the institution's commitment to developing leaders and problem solvers of tomorrow.

"

VEX Robotics challenges our students to think like engineers, building skills in problem-solving and design. The program fosters teamwork and innovation, preparing them for future STEM careers."

Ryan McDonald, MSSM VEX
Coach

What is VEX Robotics?

VEX Robotics offers an innovative and accessible platform that fosters creativity, teamwork, leadership, and problemsolving skills. The VEX V5 Robotics system, designed by VEX Robotics and the REC Foundation, is an integral part of MSSM's robotics program. It provides students with a scalable and affordable means to engage with STEM concepts while encouraging them to think critically and work collaboratively to solve real-world problems. VEX Robotics competitions offer students a unique opportunity to apply their knowledge in a competitive setting, reinforcing the core values of perseverance, adaptability, and innovation that MSSM instills in all its students.

The VEX V5 Robotics system allows MSSM students to explore advanced engineering and computational concepts through hands-on learning, using standardized hardware, firmware, and software. This system replaces the previous VEX EDR (VEX Cortex) and is now the cornerstone of competitive robotics at MSSM.

VEX Robotics Competitions at MSSM: The VEX V5 Robotics Competition, or V5RC, is an annual challenge that invites middle and high school teams to design, build, and program robots using the VEX V5 system. These teams then compete in regional, state, and national tournaments, with the ultimate goal of qualifying for the VEX Robotics World Championship. MSSM's Team 4393, with its various robots denoted by letter suffixes, has consistently risen to the challenge, showcasing the exceptional talents of its students.

Each year, VEX introduces a new game for teams to master. This year, the challenge is VEX V5 Robotics
Competition: High Stakes, which demands innovation, strategy, and technical prowess. Competitions are held in a 12-foot by 12-foot field where



MSSM 4393 VEX Teams at States



Mr. Eugene Katsman helps MSSM VEX Team 4393A with robot design.

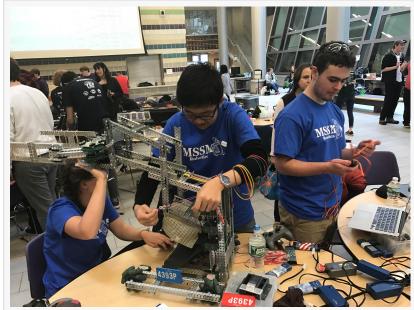
alliances of two robots compete to score points. Teams must excel in both the autonomous period—where robots operate based on pre-programmed instructions—and the driver-controlled period, where teams take control using handheld controllers to guide their robots through complex tasks. The goal is to outperform the opposing alliance while adhering to specific game rules, which test not only technical skills but also strategic thinking.

For MSSM's teams, these competitions are not just about winning; they are about growth and learning. Students work together to design robots within specific size and material constraints, ensuring that their creations can perform a variety of functions, from lifting and placing objects to navigating obstacles. The development process often involves multiple iterations of design,

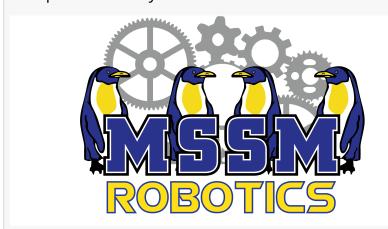
programming, and testing—an approach that mirrors real-world engineering practices.

The Importance of VEX Robotics at MSSM: At MSSM, the VEX Robotics program is a key part of the school's mission to foster academic excellence in STEM disciplines. VEX Robotics goes beyond teaching technical skills; it also builds critical life skills such as teamwork, leadership, and perseverance. Students on MSSM's VEX Robotics teams must collaborate closely, dividing tasks based on individual strengths, whether in design, programming, or strategy.

MSSM's small class sizes and individualized attention enable students to dive deep into their interests, whether they are seasoned robotics enthusiasts or newcomers. The school's commitment to offering advanced STEM opportunities means that all students—regardless of their experience level—are supported in their pursuit of excellence in robotics.



Students from 2018 work on an MSSM VEX Robot at Hampden Academy in Maine.



MSSM's VEX Robotics Logo

Keywords such as "Selective High School Maine" and "Magnet School Advanced Courses" capture the essence of MSSM's academic philosophy. As a school that prioritizes intellectual curiosity and hands-on learning, MSSM provides a unique environment where high achievers can explore their interests in robotics while also excelling in a range of other subjects, from mathematics and physics to humanities.

Preparing for the Future: The Benefits of Robotics for MSSM Students
The skills students gain through participation in VEX Robotics competitions are invaluable.
Robotics encourages computational thinking, problem-solving, and creativity—skills that are essential in the 21st-century job market. For MSSM students, participating in VEX Robotics is an opportunity to apply classroom learning to real-world problems, gaining experience that will benefit them in college and beyond.

MSSM's robotics program is not only about competition; it's about preparing students for careers

in STEM fields. By working on VEX Robotics teams, students learn how to approach complex problems methodically, break down tasks into manageable components, and iterate on solutions until they achieve success. These are precisely the skills that employers and universities look for in future STEM leaders.

"High School for High Achievers" and "Academically Motivated High School" are fitting descriptors for MSSM, as its robotics teams embody the school's ethos of pushing boundaries and striving for excellence. The school's robotics program complements its rigorous academic curriculum, providing students with a balanced and comprehensive education that prepares them for leadership roles in science, technology, engineering, and mathematics.

Team 4393: A Legacy of Success

MSSM's Team 4393 has established a strong reputation in the VEX Robotics community. Over the years, the team has qualified for numerous state and regional tournaments, consistently ranking among the top competitors. This success is a testament to the hard work, dedication, and passion of MSSM students, who spend countless hours outside of class working on their robots, refining their designs, and strategizing for competition.

Team 4393's achievements have helped put MSSM on the map as a center for STEM excellence. The school's robotics teams not only compete at a high level, but they also serve as ambassadors for MSSM, demonstrating the school's commitment to fostering a culture of innovation and problem-solving. For students who are interested in robotics, MSSM offers an unparalleled opportunity to work with cutting-edge technology, collaborate with like-minded peers, and challenge themselves in meaningful ways.

Looking Ahead: The Future of Robotics at MSSM: As robotics continues to evolve, so too will MSSM's VEX Robotics program. The school is committed to providing its students with the resources, mentorship, and support they need to succeed in robotics and beyond. With the rise of artificial intelligence, automation, and other advanced technologies, the skills that students gain through participation in VEX Robotics are more relevant than ever.

MSSM's small, tight-knit community ensures that every student has the opportunity to shine, whether they are competing in robotics tournaments or pursuing other academic interests. The school's interdisciplinary approach to education means that students are encouraged to make connections between what they learn in robotics and other subjects, fostering a well-rounded understanding of the world around them.

For MSSM students, VEX Robotics is not just an extracurricular activity; it is a gateway to a future filled with possibilities. By taking part in this program, students gain the knowledge, skills, and confidence they need to become the innovators and leaders of tomorrow.

Join MSSM's Robotics Program: MSSM's VEX Robotics program is open to all students, regardless of their prior experience with robotics. The school encourages students from diverse

backgrounds to join the team and explore the exciting world of robotics. Whether students are interested in design, programming, or strategy, there is a place for everyone on Team 4393.

For students who are passionate about STEM and looking for a high school experience that will challenge them academically while also providing hands-on opportunities to build and compete with robots, MSSM is the perfect fit. With small class sizes, individualized attention, and a community of high achievers, MSSM offers an unparalleled environment for learning and growth.

Conclusion: MSSM's VEX Robotics Teams, known as Team 4393, are a shining example of the school's commitment to excellence in <u>STEM education</u>. Through participation in VEX Robotics competitions, MSSM students develop critical skills in problem-solving, teamwork, and leadership, while also gaining valuable experience in design, programming, and engineering. The school's small, close-knit community provides the perfect environment for students to explore their interests, challenge themselves, and prepare for a future in STEM fields.

As MSSM continues to build on its legacy of success in robotics, the school remains dedicated to providing students with the resources and support they need to achieve their full potential. With a focus on innovation, collaboration, and hands-on learning, MSSM's VEX Robotics program is preparing the next generation of STEM leaders to excel in college, careers, and beyond.

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