SMALL ROBOTS, BIG POSSIBILITIES FOR MAPS STUDENTS

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At Rosa Parks Elementary, the excitement started with a simple challenge: How do you get a robot to do what you want it to do?

Students were eager to get their hands on the technology, explore how it worked and figure out how to make the robots complete simple tasks. Those first discoveries are just the beginning of what a new partnership will make possible across Mankato Area Public Schools.

In August, Rosa Parks was the site of an announcement highlighting a regional effort to bring robotics into rural Minnesota schools. Known as the Rural Experiential STEM Education Partnership Initiative, or RESEPI, the program connects schools with Minnesota State University, Mankato, and industry partners.

In MAPS, that partnership reaches Mankato East, Mankato West, Central High School and Rosa Parks, the district's STEAM Focus Elementary School. STEAM brings together science, technology, engineering, arts and mathematics, making robotics a natural opportunity for students to explore how those subjects work together.

The same technology that sparks curiosity in elementary students also opens the door to more advanced learning in high school. At Mankato East, educator David Stahl plans to use the robots to teach students about robotic planting in agriculture. Students will explore how that technology works by simulating the process with a smaller robot model, connecting classroom learning with agricultural applications.

Behind these student opportunities is an investment in educators. Participating teachers completed a two-week summer training experience at Minnesota State University, Mankato, learning robot assembly, programming, coding and troubleshooting, along with ways to incorporate robotics into their instruction.

The pilot program is distributing 300 robotics kits to participating rural schools during August and September. Each schools' equipment is valued at approximately $2,000 and provided at no cost, includes a robot chassis, Raspberry Pi controller, motors and sensors. More than $100,000 in investments have been made from across the community, including from Rolls-Royce Solutions American, Emerson Corp., South Central Service Cooperative and the Mankato Area Foundation.

For MAPS, the value goes beyond the equipment. The partnership gives educators tools and support to help students ask questions, test ideas and work through challenges. It also helps students see how what they learn in school connects to the technology shaping local industries. RESEPI also helps coordinate industry involvement in the classroom. At Rosa Parks, Rolls-Royce is supporting one of their engineer's to visit and help provide technical insight to the students.

From a first successful movement at Rosa Parks to a simulated planting project at East, these small robots offer students big possibilities.





EDUCARE

DR. AMY SORENSON, EDUCARE BOARD MEMBER

The Educare Foundation, a non-profit organization founded in 1995, has provided more than $1.3 million in financial support to Mankato Area Public Schools. Educare's support through Educator Initiative Grants and Ed Waltman Mini Grants comes from public support and donations.

The goal of the Ed Waltman Mini Grant Program is to provide enrichment opportunities to students in Mankato Area Public Schools. The Foundation distributes up to $24,000 annually in mini grants, with a maximum of $1,000 awarded per mini grant. Ed Waltman Grants have funded classroom innovations like literacy and math support and new curriculum, as well as new ways to address social/emotional wellbeing.

Educator Initiative Grants are reviewed and distributed annually. These grants do not have a maximum budget, and in 2025 Educare gave $36,000. The Initiative Grant encourages high-impact development of district curriculum and initiatives. Through your donation, we enable teachers to explore new ways to expand a world of learning for their students. Learn more at Educarefoundation.org.





