The MBot Ecosystem

TECHNOLOGY NUMBER: 2023-404

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Category
MOSS - Michigan Open Source Software

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OVERVIEW

Low-cost, adaptable educational robot ecosystem for hands-on robotics learning

- Offers affordable, versatile platforms enhancing practical robotics education
- Useful for university courses, student projects, robotics competitions, STEM education

INNOVATION

MBot^{TM} is a low-cost, adaptable ecosystem from Michigan Robotics for teaching robotics with real robots. It was invented in 2014 and consists of a family of educational robot platforms that have been used to teach 8 courses across undergraduate and graduate levels. The MBot^{TM} family provides various educational robot platforms that can be tailored to meet the diverse needs of students and institutions, allowing for hands-on, practical learning experiences. This adaptability makes it an invaluable resource for teaching fundamental and advanced robotics concepts in a cost-effective manner. Potential real-world applications of the MBotTM ecosystem include use in university robotics courses, student projects, robotics competitions, and broader STEM education initiatives, ultimately democratizing access to quality robotics education and fostering innovation and technical skills in students. Learn more about how others are using the MBot^{TM} for hands-on robotics education.

Project Links	[MBot™ project website](#)
Department/lab	[Michigan Robotics](#)
Target audience	Robotics instructors, students, and hobbyists
Seeking	- Users - Community manager - Industry partners
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