

WHY A ROBOTICS CENTER?



Macomb County is home to a large community with experience in the manufacturing, mass production, and supply chain industries, as well as technology and product development. This is because:

- Southeast Michigan’s technology and manufacturing executives are optimistic about growth in revenues, spending, and talent.
- Southeast Michigan offers a more competitive growth path for technology professionals than Silicon Valley, given the lower cost of living, networking opportunities, and leading academic institutions.
- Southeast Michigan is ripe for technology companies to conduct business due to the region’s ability to retain talent, achieve a greater return on investment, and lower the cost of capital.

COMMUNITY

In partnership with the City of Sterling Heights, the Macomb Intermediate School District, the Macomb County Department of Planning and Economic Development, and Macomb Community College, **the center will leverage the Velocity Collaboration Center in Sterling Heights by forming an independent not-for-profit organization** governed by a board of directors and operated by staff and volunteer support. The community is well positioned to advance robotics efforts for the following reasons:

- The fastest growing occupations in Sterling Heights are in the engineering sector and are growing anywhere from **38% to 70%**.
- Sterling Heights ranks fourth in the U.S. for concentration of engineering jobs—following such high-tech centers in Los Alamos, New Mexico; Lexington Park, Maryland; and Huntsville, Alabama.
- Sterling Heights is home to major facilities for all three U.S. automakers, General Dynamics, and substantial tier-one suppliers.

POTENTIAL PARTNERS AND PARTICIPANTS

For Inspiration and Recognition of Science and Technology, or FIRST, high-school teams

Workforce development agencies

Four-year higher education institutions and community colleges

Science, technology, engineering, and math initiative groups (K–12)

Regional economic development organizations and chambers of commerce

Regional school districts

Multiple think tank/research institutions

Regional trade associations

Active network of venture capitalists and philanthropists

Green mobility cluster initiative

Business accelerators

Industry

ROBOTICS

ASSETS

Resources will be allocated to provide equipment and technology for hands-on, collaborative learning opportunities. These will include 3-D printers, 3-D laser scanners, computers with creative software, and sensors. In addition to these resources, other tools to pursue include:

- Fabrication machinery and tools—lathes, laser cutters, metal bending equipment
- Electronic tool soldering, printed circuit board design and manufacturing, software tools, computer-aided design equipment
- Virtual reality
- Rethink Robotics

KEY OUTCOMES

Measurable
Impacts

Participant
Progress

Education
Attainment

Community
Support

Activities

The advisory committee will oversee budget establishment and fundraising direction. The estimated operating budget will be in excess of \$1 million. Much of these funds will come from local government funding and corporate support, while supplemental revenues will come from user fees. Other funding sources to pursue include:

- Corporate sponsors and major gifts
- Michigan Economic Development Corporation and federal grants, including the Department of Defense and the National Science Foundation
- Educational community

