Robotics and Mechatronics

Program Description

Mechatronics is the synergy, or blending, of multiple engineering disciplines. In the Robotics and Mechatronics program students will learn the competencies necessary to meet the demands of industry that require technicians to be multi-skilled in several areas including robotics, electronics/electrical, mechanics, pneumatics, and programming. Students will be given the opportunity to learn logical processes and troubleshooting skills through theory and hands-on applications.

Students who are interested in careers in industrial settings and hands-on applications will learn the basic concepts necessary to design, build, maintain, troubleshoot and integrate robots and other automated systems.

Related Professions

Robot programmer/technician
Controls engineer
Electrical technician
Electrician
Electronics technician
Fluid power technician – Hydraulic, Pneumatic
Machine builder
Mechanical engineer
Mechanical technician
Mechatronics engineer
Mechatronics instructor
Mechatronics technician
HVAC technician
Pipefitter
Process engineer
Systems integration engineer
Logistics

Articulations:
St. Clair County Community College - Mechatronics

Possible Certifications:
FANUC Industry Robot Certification

Program Success Indicators

Academic
• Good reading skills
• Basic high school level math, science, and computer skills
• Be able to listen, read and follow verbal and written instructions
• Demonstrate workplace literacy skills – information processing, logical reasoning, critical thinking, problem solving, and decision making

Interpersonal
• Strict Adherence to Safety Requirements
• Organizational skills
• Teamwork skills
• Work well with others
• Time Management
• Abide by classroom rules
• Good attendance and punctuality
• Appropriate workplace attire

Program specific
• Interest in programming and robotics
• De-bugging and troubleshooting
• Basic knowledge of mechatronic principles
• Enjoy hands-on, organized, structured work environment

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