

ROBOTICS & AUTOMATION

2020-2021



Robotics & Automation provides students with skills applicable to career fields such as industrial electrician, electrical technician, and electrical controls engineer. Students will learn electrical and electronic fundamentals, automated machinery components and control system design, as well as actually program industrial control devices and robots. Students enrolled in this program can directly enter the workforce in an entry-level capacity, or choose to further their education after graduation. Robotics & Automation is part of the Advanced Manufacturing Academy. Senior students have the opportunity to engage in advanced-elective course work in any of the manufacturing areas: Computer-Aided Design, Precision Machining, Robotics & Automation, and Welding. This opportunity provides students with a more diverse skill-set to enter a career in manufacturing.

Program Highlights:

- Learn the fundamentals of electricity and electronics while exploring how industrial control systems and automations systems are designed and operated
- Program, operate and troubleshoot common industrial control devices used in today's manufacturing industry
- Work with industrial robots and integrate robots with other programmable devices and systems

The Program Focuses on the Following State Approved Courses:

- Automated Materials Joining Technology Course 1 - Introduction to Automated Materials Joining
- Robotics
- Industrial Robotics
- Motor Controls, PLCs and VFDs



COST-FREE COLLEGE CREDIT OPPORTUNITIES

We are working to creating college credit plus opportunities with various institutes of higher learning.

INDUSTRY-RECOGNIZED CREDENTIALS (POINT VALUES)

- Fanuc-Handling Tool Operation & Programming J2P0310 IACT Approved (6 Points)
- OSHA 10-Hour Training (1 Point)
- Allen Bradley / Rockwell Automation PLC (6 Points)

OHIO MEANS JOBS OCCUPATIONS LISTED ACCORDING TO TYPICAL SALARY

| OCCUPATION TITLE | TYPICAL SALARY-BOTTOM 10% | TYPICAL SALARY-MEDIAN | TYPICAL SALARY-TOP 10% | EDUCATION LEVEL | ANNUAL JOB OPENINGS |
|--|---------------------------|-----------------------|------------------------|--------------------------|---------------------|
| Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic* | \$25,010 | \$35,130 | \$50,540 | HS Diploma or Equivalent | 1,770 |
| Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders* | \$25,120 | \$32,600 | \$48,190 | HS Diploma or Equivalent | 720 |
| Electro-Mechanical Technicians* | \$32,920 | \$50,430 | \$98,810 | Associate's Degree | 40 |
| Industrial Engineering Technicians* | \$35,850 | \$52,940 | \$78,970 | Associate's Degree | 280 |
| Mechanical Engineering Technicians* | \$36,560 | \$55,140 | \$77,380 | Associate's Degree | 220 |
| Robotics Engineers* | \$51,610 | \$90,780 | \$148,450 | Bachelor's Degree | 530 |
| Industrial Engineers* | \$55,610 | \$80,630 | \$121,120 | Bachelor's Degree | 1,100 |
| Industrial Production Managers* | \$62,540 | \$101,950 | \$170,490 | Bachelor's Degree | 740 |

JOB OUTLOOK COMPILED BY OHIO MEANS JOBS AS OF OCTOBER 2020; VISIT OHIOMEANSJOBS.COM FOR MORE INFORMATION.

*Denotes an In-Demand Occupation in the State of Ohio

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EDUCATION WITH PURPOSE CAREER TREE



TECHNICAL CAREERS

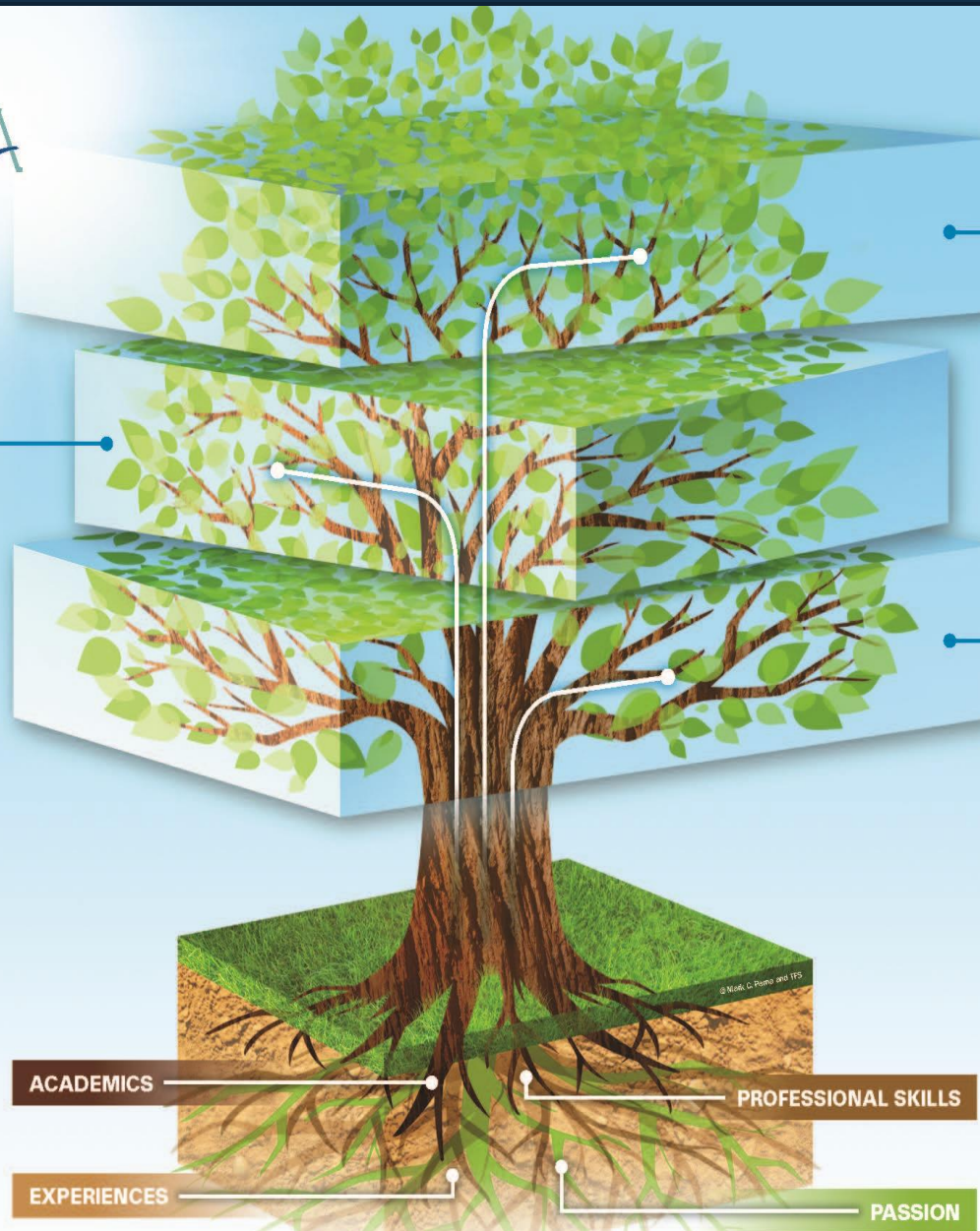
- Industrial Maintenance Electrician
- Installation & Facilities Electrician
- Electrical/Electronic Controls Technician
- Robotics Technician
- Production/Inventory Control Supervisor
- PLC Programmer
- Maintenance Supervisor
- Quality Control Technician
- Production/Shop Floor Supervisor
- Field Service Technician
- Machine Guarding/Safety Technician

PROFESSIONAL CAREERS

- Electrical/Electronic Engineer
- Robotics Engineer
- Control Systems Design Engineer
- Systems Integrator
- Process Engineer
- Project Manager
- Engineering Group Manager
- Industrial Controls Sales & Service
- Robotics Sales & Service
- Maintenance Manager
- Engineering Director

ENTRY-LEVEL CAREERS

- Apprentice Maintenance Electrician
- Apprentice Installation & Facilities Electrician
- Electrical Control System Assembler
- Associate Robotics Technician
- Manufacturing System Operator
- Electrical Panel Wiring & Assembly
- Associate Field Service Technician
- Associate PLC Programmer
- Associate Quality Control Technician
- Inventory Control System Operator
- Production Assembler



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