WIN WORKFORCE INITIATIVE NETWORK

ROBOTICS TECHNICIAN

What do they do?

Robotics Technicians maintain, troubleshoot, and support robotic systems used in manufacturing, automation, labs, or applied research. They often work hands-on with hardware, software, and control systems to ensure robots and automated machines operate smoothly and safely. They may assist engineers in installing new systems, calibrating sensors and actuators, and diagnosing when parts or software fail.

Summary of Duties

- Install, set up, and maintain robotic systems and their components
- Monitor operation, perform preventative maintenance, and troubleshoot faults
- Calibrate sensors, motors, actuators, and control systems
- Assist with software and firmware updates or interface with control logic
- Work with mechanical, electrical, and software elements to ensure system integrity and safety
- Collaborate with engineers or technicians to integrate robotics into automated workflows

Employment, Wages & Skills

Starting	Average	Experienced
$22/hr	$33/hr	$46.70/hr

Employment Requirements

- College diploma or technical training in robotics, mechatronics, industrial automation, or electrical/mechanical technologies
- Hands-on experience with robotics hardware (sensors, motors, actuators) and control systems
- Basic software/programming or ability to work with control logic/firmware is an asset
- Strong troubleshooting skills in mechanical, electrical, and software systems
- Safety training appropriate to industrial settings (lock-out/tag-out, electrical safety, etc.)

Skills You'll Build

- Troubleshooting mechanical, electrical, and software issues
- System calibration and preventative maintenance
- Integration of robotics components (hardware + control systems)
- Reading and working from technical schematics and blueprints
- Teamwork across engineering, tech, and operations
- Ensuring safety and reliability in automated systems

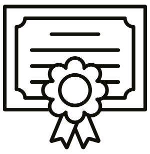
A Day in the Life

A Robotics Technician's day often begins with inspecting and testing robotic systems, calibrating sensors and actuators, and performing preventative maintenance. If a fault occurs, they troubleshoot issues ranging from firmware to wiring. They may also install or configure new automation components, update control logic, and work closely with engineers to integrate new solutions. Documentation and safety checks are a regular part of the role.

Why Choose This Career?

- Robotics is expanding across many industries (manufacturing, labs, applied research, automation)
- Hands-on technical work that blends electronics, mechanics, and programming
- Work with cutting-edge automation and robotics tools
- Good pay potential, especially in regions with strong manufacturing or research
- Clear career progression into specialist or supervisory roles

Certification & Training



- Diploma/certification in robotics, mechatronics, or industrial automation
- Short courses or workshops in PLCs, sensors, motion control
- Applied research or lab experience is highly valued
- Training in industrial safety standards
- Continuous upskilling with evolving robotics technologies

Next Steps for High School Graduates:

- Apply to a college diploma or apprenticeship program in robotics, mechatronics, or automation
- Take STEM courses (math, physics, computer science)
- Join robotics clubs, competitions, or makerspaces
- Gain experience through school labs or volunteer projects

Robotics Technician Education Pathway

Institution	Program	Credential & Duration	Key Focus Areas
St. Clair College (Windsor, ON)	Electromechanical Engineering Technician - Robotics	Ontario College Diploma, 2 years	PLCs, CAD, robot programming, sensors & actuators
Seneca Polytechnic (Toronto, ON)	Electromechanical Engineering Technology - Automation (EMA)	Ontario College Advanced Diploma, 3 years	Robotics systems, PLCs, IIoT, industrial automation, CAD/CAM
Centennial College (Toronto, ON)	Electromechanical Engineering Technician - Automation & Robotics	College Diploma, 4 semesters	Robotics, automation systems, PLCs, hydraulics, pneumatics
Humber College (Toronto, ON)	Electromechanical Engineering Technician - Automation & Robotics Profile	College Diploma, 4 semesters	Industrial automation, robotics lab, Fanuc/Kuka robots, PLCs