

OJT CORE COMPETENCIES

Robotics Technician

TERM OF APPRENTICESHIP

The term of the apprenticeship is 2 years.

APPRENTICESHIP APPROACH

Time-based

Competency-based

Hybrid

Apprenticeships may be time-based, requiring a set number of OJT (on-the-job training) and RTI (related technical instruction) hours; competency-based, allowing completion once all skills are mastered; or hybrid, blending both time and competency requirements.

SCHEDULE AND CHECKLIST

Essential Job Categories	Competencies
Safety	<ul style="list-style-type: none">• Keep self, others, and robots and/or automated machinery safe• Properly use safety features and components to conduct safety procedures• Report unsafe work conditions• Practice good housekeeping• Follow lock-out/tag-out procedures• Respond to emergency situations safely and efficiently• Adhere to company and legal safety standards• Employer-specific competency
Machine Operations	<ul style="list-style-type: none">• Set-up the robot and/or automated machinery for use• Program the robot and/or automated machinery to carry out intended tasks• Use programmable logic controller (PLC) or other industrial communication protocols to operate the robot and/or automated machinery• Operate the robot and/or automated machinery• Build or assemble robotic devices/systems and/or automated machinery• Use a production program to modify a position value (position register)• Record, interpret, and convert measurements to accurately install and configure robots and/or automated machinery• Adjust or repair robot and/or automated machinery components to ensure efficient operation• Interpret process control documentation to ensure safe and efficient operation of the robot and/or automated machinery• Employer specific task

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Essential Job Categories	Competencies
Tool Usage	<ul style="list-style-type: none">• Select proper tools for a given situation• Use tools safely• Use non power tools to install and repair components• Use power tools to install and repair components• Use proper tools to install and repair wiring• Repair or replace pneumatic components and hydraulic fittings using appropriate hand tools and metering devices• Perform calculations to identify specifications for use of tools (e.g., for cutting)• Employer-specific competency
Machine Maintenance	<ul style="list-style-type: none">• Clean the robot, controller(s), and/or other automation machinery safely• Perform hardware maintenance• Calibrate the robot and/or automated machinery• Test components• Sort and ensure materials and equipment are in designated areas after use• Employer-specific competency
Troubleshooting	<ul style="list-style-type: none">• Review the equipment and product information• Perform tests on programs, wiring, and solder joints• Interpret test results using root-cause analysis to identify the problem• Properly use tools and repair techniques to resolve the problem• Make a recommendation to address the identified issue• Employer specified task