

Title: Automation Engineer (Mechanical)

As an Automation Engineer, you will report directly to the Engineering Manager. Your primary responsibility will involve providing end-to-end support in the development of internal turn-key automation systems for testing, assembly, manufacturing, and quality testing purposes.

This role entails hands-on work, focusing primarily on projects related to testing and manufacturing, although opportunities for application in other areas of the company where innovation and critical thinking are essential may arise.

The success of projects will be evaluated on a variety of factors including, but not limited to, productivity and/or quality improvements, operational efficiency gains, scalability, and project ROI.

Specific objectives you will address include:

- Development of fatigue cycle testers and associated measuring equipment for R&D Lab.
- Design and implementation of in-line measurement and testing stations/fixtures.
- Design and implementation of various types of “pick and place” style robotic manipulators.
- Creation of semi/fully automated assembly aid fixtures aimed at reducing assembly time and increasing yield.
- Design and integration of semi/fully machining fixtures incorporating workpiece holding and robotic EOAT manipulators.
- Contribution to production-related projects focused on increasing capacity during "lights off" periods.

You would need to know:

- Automated system architecture design inclusive of mechanical, electrical, software, and safety systems.
- Software development and troubleshooting for:
 - Programmable Logics Controllers
 - Human-Machine Interfaces
 - Robotic Manipulators
 - Servo-driven systems
 - Machine vision
 - Industrial communication networks (EtherCAT, EIP, DeviceNet, etc)
- Read, understand & execute electrical schematics & electrical wiring
- Mechanical CAD design and drafting for integrated mechanical systems, stations, machines, EOAT (end-of-arm tools), work holding fixtures or otherwise.
- Sourcing components; sensors, actuators, components, valves, etc.
- Hands-on installation of the aforementioned systems, including but not limited to mechanical assembly, wiring, modification, etc.

- Conduct training and author work instructions for qualified production staff.
- Handle ongoing maintenance of automation systems, including addition of features by request.

Ideal Candidate Skill Set:

- Engineering degree in Mechatronics and equivalent experience is preferred.
- 5+yrs experience with programmable logic controllers and knowledge of IEC 61131 programming languages and standards.
- Knowledge of Omron PLCs and Sysmac Studio is an asset.
- CMSE® certification would be considered as an asset.
- Must demonstrate an understanding of automation safety wiring standards and principles.
- 5+yrs experience with programming robotic 5+ axis manipulators. Experience programming Fanuc robot controllers is an asset.
- 5+yrs of experience using SolidWorks for mechanical design and assembly generation for interfacing with automated systems.
- Must demonstrate an understanding of GD&T and mechanical drafting standards and principles.
- An experience with integrated machine vision (Cognex in particular) for parts locating and/or inspection would be considered as asset.
- Strong leadership skills, self starter and results driven
- Ability to work independently while operating as part of a team is essential
- Excellent analytical and problem solving skills
- Fluent in English with strong written and verbal communication skills
- Able to legally work in Canada.

About Us

North Arc is a growing group of companies specialized in advanced manufacturing and complex assemblies. We are a Canadian owned and operated organization with over 70 employees based at our 42,000 square foot facility in Mississauga, Ontario. Our mission is to use our ingenuity to improve performance and inspire confidence.

North Arc consists of four core teams:

- North Arc Labs: focused on R&D and product development
- North Arc Precision: advanced manufacturing (wire EDM, CNC) and complex assemblies
- TriggerTech: global leader in trigger assemblies for firearm and archery products
- Project 321: high-performance hub assemblies for premium mountain bike wheels



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In short, TriggerTech and Project 321 are premium, customer-facing brands who offer market-leading products that have been designed by North Arc Labs and manufactured by North Arc Precision, all under one roof in Mississauga. We pride ourselves on fostering an inclusive, entrepreneurial, and hands-on working environment. Our vision is to be an enterprise that people can trust.