# Introduction to Process Engineering

The Introduction to Process Engineering industry recognized certification enables learners to take on the role of a process control engineer in a real-world scenario. The certification explores, educates, and challenges learners with the basic skills associated with process control. They learn about process control engineering and will be challenged to come up with ideas within the discipline of process control. They will take on the role of a process control engineer and adhere to the specifications and constraints given to complete projects and the main challenge. As they explore and practice the skills associated with process control, learners will select a new operational design through experimentation.

## Industry Recognized Certification Topics

- System Diagrams
- Manual Measurement and Control
- Computer-Aided Control
- Level Monitoring and Control

## Core Competencies

- Identify and define process control engineering and how automatic control systems impact their daily lives
- Use the basic skills required for the reading and drawing of electrical schematics, mechanical drawings, and piping and instrumentation (PI) flow diagrams
- Demonstrate how flow and pressure are measured both manually and electronically and how valves and pumps work using a closed-loop fluid system
- Connect, configure, and operate hardware and software required for automated control including selecting and applying various sensors
- Discuss the logic of control (PID) and make conclusions while examining real system data output

## Equipment

- Multimedia presentation
- MindSight installation and user guide
- EduKit PA Basic hardware package
- EduKit PA Advanced hard- ware package
- EasyPort USB interface
- Fluid Lab®-PA closed loop software
- I/O data cable with SysLink connectors (IEEE 488) at both ends, 2.5 m
- Analog cable, parallel, 2 m
- Tabletop power supply unit
- Tubing cutter
- Wire cutter