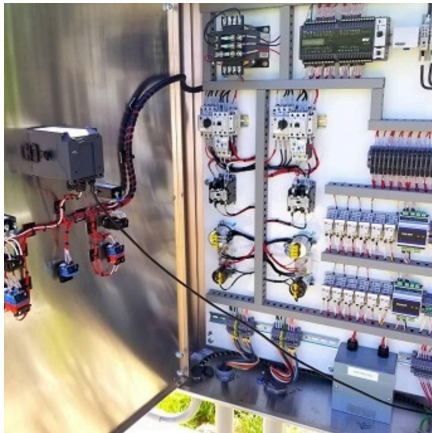


# Industrial Hardware & One-Line Print Reading

September 2025

## Course Overview

After completing this course, students will develop an understanding of common industrial hardware used in automation systems. They will also be able to read One-Line Prints, identifying components and understanding how to wire according to electrical prints.



## Course Objective

To provide the necessary information, resources, and hands-on activities needed to become proficient in the most common industrial components used in automation systems. Additionally, they will be able to read, interpret, and wire components according to one-line diagram prints.

## Who Should Attend

This course is recommended for maintenance personnel new to an industrial environment. No experience is necessary to attend this course.

## Course Length and Cost

Per Student Cost:	\$400 USD
Course Length:	1 Day

## Client Expectations

Students are expected to attend the entire training session to receive their certificate. Each student will identify industrial components used in automation systems. They will read one-line prints and wire components in a working configuration. In addition, make the following available:

- Computer and necessary software, including: Microsoft Office
- Internet Access

- Dry-erase board for examples, assignments, etc.
- Industrial components to fulfill course requirements. (List to be provided)

## Provider Expectations

The contractor will provide the following:

- Student Workbook with exercises
- Certain industrial components
- Certificate of Completion or Achievement
  - A completion certificate is provided to students who complete the entire class, but with no assessment
  - An achievement certificate is provided for those who complete the entire class and pass a written and programming assessment

## Course Agenda

Day 1:

- Safety
- Input Devices
  - Switches, pushbuttons, photoeyes, relay contacts, etc.
- Output Devices
  - Solenoids, relay coils, motor starters, lamps, etc.
- One-Line Drawings
  - Symbols, wire numbering, cross referencing
- Proper wiring techniques
- Wiring Exercises
- Assessment

## Adjustments

It may be necessary to adjust the course curriculum depending on the students' understanding of the material. Every effort will be made to include as much information as possible.

Time permitting, troubleshooting will be incorporated into the program. Troubleshooting will be limited to software, edits, and hardware configurations unless the client provides faulty equipment to be used.

If you have questions about any part of the course or would like to modify the course curriculum, please reach out to [PO Controls](#) to discuss. Price may vary depending on the extent of changes.