

Learn how to setup, configure, and program the **Allen-Bradley MicroLogix Programmable Logic Controllers** using RSLogix 500 or RSLogix Micro in **PLC Basics**

## Level 1 Lesson Topics:

(Included with 1<sup>st</sup> and 2<sup>nd</sup> Edition courses)

### Hardware

- What a PLC is
- Where PLCs are used
- Anatomy of a PLC
- Styles and Types
- Common Inputs and Outputs
- PLCs used in this course
- MicroLogix Hardware Tour
- Programming Cables
- Manuals and Documentation

### Numbers and Data

- Numeral Systems & Types of Numbers
- Digital Information & Data Types

### Ladder Logic and RSLogix Software

- What Ladder Logic is & How it works
- PLC Scan Detailed
- Download and Install Software
- Using RSLogix Micro
- Browsing Data and Program Memory

### Communications

- RSLinx Emulate Setup
- RSLinx Serial Setup
- RSLinx Ethernet Setup

### Basic Programming

- Basic Bit Instructions
- Motor Control

### Additional Instructions

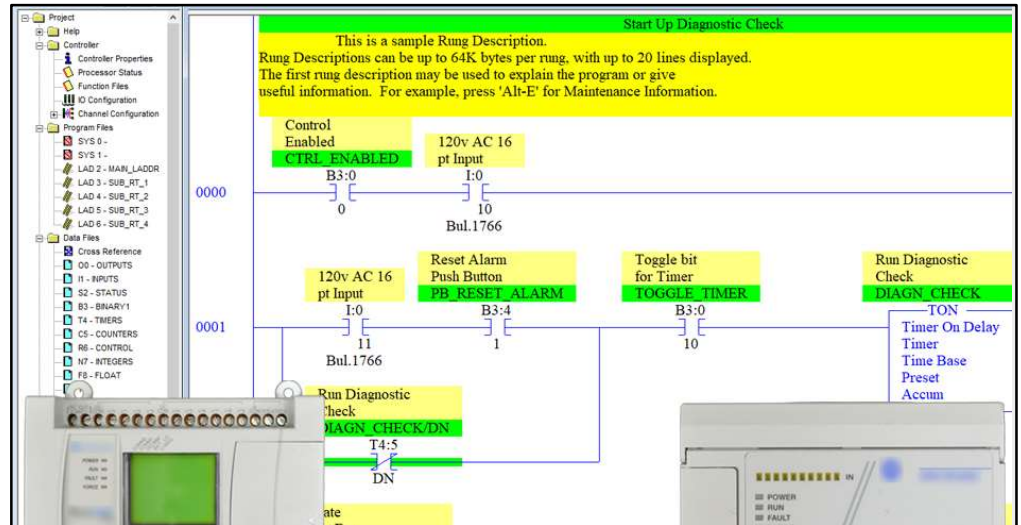
- Using TON and CTU instructions
- Using ADD and SUB instructions
- Using MUL and DIV instructions
- Using GRT and LES instructions

## Level 2 Lesson Topics:

(Included with Extended 2<sup>nd</sup> Ed. course only)

### Photo Eyes, Timers, and Counters

- Bin Full Detection
- Sense Jam, No parts
- Elapsed Run Time
- Delay Time
- Part Counting
- Copy Part Counts
- Conditional Resets
- Includes New 2024 Course Update\*
- Includes Remastered 1<sup>st</sup> Ed. Course\*



**PLC Basics is designed for those students who have basic electrical knowledge, and want to learn how to setup, program, and troubleshoot PLCs - perfect for new PLC users! The specific PLCs covered in this course (pictured above) include the Allen-Bradley MicroLogix 1100 and 1000, both of which can be programmed using the free RSLogix Micro Starter Lite software.**

### What students will learn:

- What a PLC is
- Styles and Types of PLCs
- Numbering Systems and Data Types
- What Ladder Logic is and how it works
- How to setup Serial and Ethernet Communications
- Creating, Testing, and Troubleshooting MicroLogix Programs in RSLogix
- How to integrate Push Buttons and Pilots Lights with PLC Logic
- How to use PLCs in a Motor Control circuit
- And much more in the Extended Edition

### Who should take this course:

- Anyone with basic electrical knowledge who would like to learn how to use, program, and troubleshoot Programmable Logic Controllers (PLCs.)

### What students need to complete hands-on exercises:

- Windows 7, 8, or 10 PC with Ethernet or USB port and an internet connection
- Free RSLogix Micro Starter Lite programming software (how to get is covered in course)
- A MicroLogix 1000 or MicroLogix 1100, and compatible PC and Cables on students PC, or
- Free RSEmulate 500 Emulation software to simulate the PLC (how to get is covered in course)

### Course Editions (Note: Online courses include instructor support, completion certificate, and lifetime access)

- **TAS-PLC22-O\*** PLC Basics Second Ed. Extended Online Course (Level 1 and Level 2 Topics) **\$99.99**
- **TAS-PLC91-O** PLC Basics First Ed. Remastered Online Course (Level 1 Topics, upgradeable to Extended/1&2) **\$34.99**

\* For a Limited Time: Includes PLC Basics 1<sup>st</sup> Ed Remastered

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