PLC Basics, Second Edition

TheAutomationSchool.com

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

Standard Course Lessons:

(Standard and Extended Versions)

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

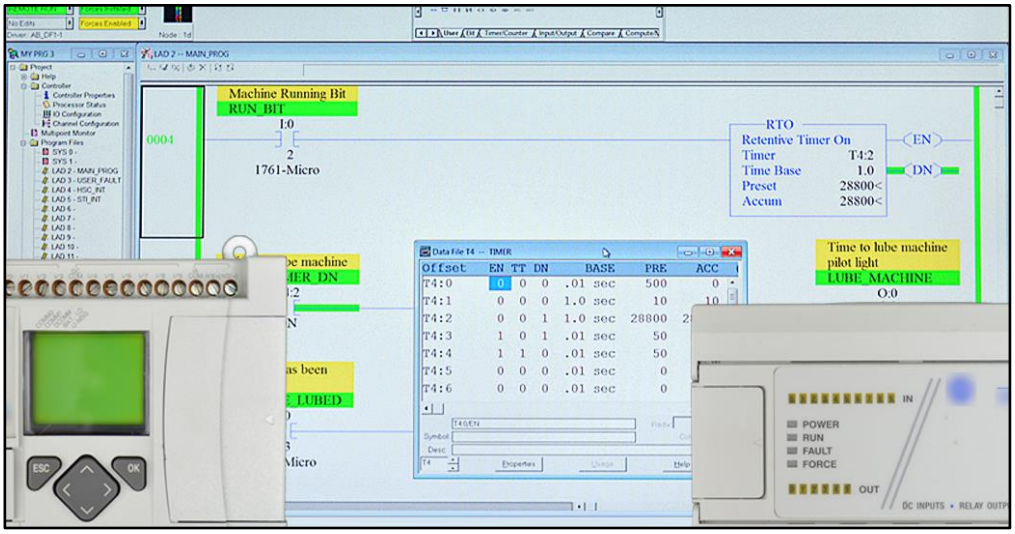
Basic Programming
- Basic Bit Instructions
- Motor Control

Advanced Course Lessons:

(Extended Version 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
- Extra credit lessons

Math and Compare
- Using ADD and SUB instructions
- Using MUL and DIV instructions
- Using GRT and LES instructions



PLC Basics, Second Edition is designed for those students who have basic electrical knowledge, and would like 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
- An internet connection to download the free programming software
- A MicroLogix 1000, a “USB to Mini-Din” programming cable, and a USB port on their PC.
- Or a MicroLogix 1100, a standard Ethernet cable, and Ethernet Port on student’s PC.