

## Learn how to setup, configure, and program Allen-Bradley Micro800 Nano Programmable Controllers using CCW in Nano Basics

### Standard Course Lessons:

(Included with Standard and Extended courses)

#### Hardware

- Micro800 Controllers
- Selecting Components
- Hardware Unboxings
- Local Rockwell Representative

#### Software

- Downloading CCW Software
- Installing CCW on Windows 7, 10
- Update: Windows Patch Issues

#### Communications

- RSLinx Classic Configuration
- Setting up USB Comms
- Setting up Ethernet Comms
- Flashing Firmware

#### Programming

- Motor Control using Ladder Diagram routines.
- Part Sensing (LD) with Photo Eyes
- Machine Runtime using FBD
- Part Counting using FBD
- Performing Calculations using ST
- Exporting and Importing Programs

### Advanced Course Lessons:

(Included with Extended course only)

#### Analog and Expansion I/O

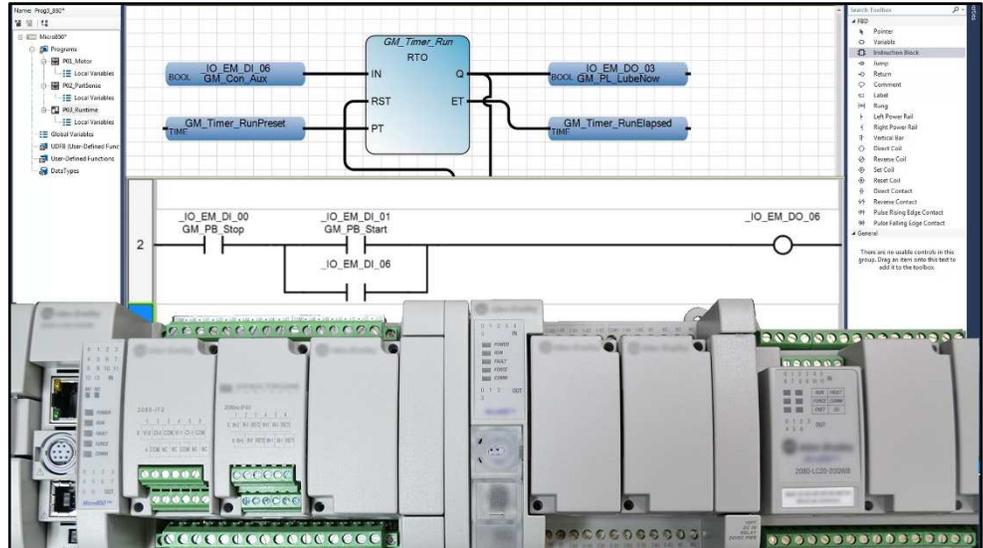
- Using and Scaling Analog Inputs
- Using and Scaling Analog Outputs
- Using Universal Analog Inputs
- Using Plugin and Expansion I/O
- Using Serial Plug-In with Modbus

#### Variable Frequency Drives

- Controlling VFDs over Modbus
- Setting up VFDs on Ethernet
- Controlling VFDs over Ethernet

#### Human Machine Interfaces

- Creating a PanelView 800 Motor Control Project



Nano Basics is designed for those students who have basic PLC knowledge and would like to learn how to setup, program, and troubleshoot the Allen-Bradley Micro800 line of Nano Programmable Controllers using Connected Components Workbench.

### What students will learn:

- Understand the design of the Micro800 Family of Nano PLCs
- How to choose Micro800 components and configure a system
- How to get the free programming software and how it works
- How to setup Micro800 and RSLinx Ethernet and USB communications
- How to Flash Controller Firmware over Ethernet and USB
- How to create and test a Motor Control routine in Ladder Logic
- How to create and test a Part Sensing routine using Photo Eyes
- How to create and test a Machine Runtime routine in Function Block
- How to create and test a Part Counting routine in Function Block
- How to create and test a Mathematical Calculation routine in Structured Text
- How to Export and Import Micro800 Programs using CCW
- And much more in the Extended Edition!

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

- Windows 7, 8, or 10 PC with an Ethernet and/or USB Port
- An internet connection to download the free programming and emulation software
- An Allen-Bradley Micro800 with USB or Ethernet communications ports (or emulation software)

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

- **Nano Basics Standard Online Course** (upgradable to extended online course) **\$69**
- **Nano Basics Extended Online Course** **\$149**

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# The Automation School's Group Enrollment Program

The Automation School offers group enrollment to our business customers who need to enroll multiple employees in one or more of our courses.

Employers who utilize group enrollment gain access to several benefits, including group discounts based on the number of students being enrolled.

Our group enrollment program also provides employers with the ability to track student progress using a complimentary "group progress" webpage accessible to designated "group leaders."

This webpage not only allows the tracking of student progress, but also provides individual quiz scores and overall completion status. Access to this level of detail has been especially helpful to employers who incentivize their employees to successfully complete the courses they're enrolled in.

And just like with standard enrollees, students enrolled through the group enrollment process will have access to their courses *for as long as they are employed by the company who enrolled them*, as none of our courses come with any artificial deadlines or expiration dates.

So, if you're considering enrolling three or more employees in courses at The Automation School, I invite you to reach out to us for a free group enrollment quote.

Sincerely,

Shawn Tierney,  
Instructor and Founder, The Automation School

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## Common "Group Enrollment" Questions

***"What do I need to provide you with in order to enroll a group of employees in online courses at The Automation School?"***

First, in order for us to provide you with a group enrollment quote, we'll need to know how many students you want to enroll (minimum of three,) and which courses you wish to enroll them in. This information can be submitted to us using our Group Enrollment Inquiry Form [HERE](#).

Then when you place your group enrollment order, you'll need to provide us with the name of each student as well as their company email address. If you wish to make use of the student tracking webpage, we'll also need at least one group manager's name and email address as well.

***"After enrolling a group of employees, if one of them leaves my department or our company can I pass that seat onto to a replacement?"***

Yes! As long as the original enrollee has not completed more than 25% of the course, we can pass the former enrollee's seat on to a new employee *totally free of charge!* If the original student has completed more than 25% of the course, their seat can be re-allocated at a pro-rated cost (*i.e. if the previous student completed 50% of the course, reallocating their seat would cost 50% of a new seat*)

***"How can I find out more about enrolling a group of my employees in online courses at The Automation School?"***

To get in contact with us about group enrollment, just fill out our short Group Enrollment Inquiry form [HERE](#), and we'll typically get in touch with you within one business day!