

ControlLogix Motion

August 2025

Course Overview

Upon completion of this course, students should be able to demonstrate fundamental motion control concepts common to all Rockwell Automation motion control systems. This course is designed to provide you with an understanding of the concepts, terminology, functionality, and applications of motion control. **The course is done on equipment made available by the client.**



Course Objective

To provide the necessary information, resources, and hands-on activities needed to become proficient in motion control within the ControlLogix system.

Additionally, students will program drives to perform specific functions safely.

There are ample hands-on exercises and troubleshooting that familiarize the student with the hardware and software.

Who Should Attend

This course is recommended for maintenance and engineering personnel, and those responsible for programming and maintaining this equipment. It is recommended that students have a thorough understanding of the concepts and practices included in the **ControlLogix Programming & Maintenance course (POCC101)** or equivalent.

Course Length and Cost

Per Student Cost:	\$2000 USD
Course Length:	4 Days

Client Expectations

This training is provided at a discount by using equipment provided by the client. Students are expected to attend the entire training session to receive their certificate. It includes a separate workstation, Flex IO Modules with DH/DH+ Communications Module, Flex IO ControlNet Module, Flex IO Ethernet Module, 1756-L75 Controller, Ethernet Module, ControlNet Module, and software for each student. An additional station for the instructor. In addition, make the following available:

- Computer and necessary software, including: RSLogix 5000, RSLinx, ControlFlash
- ControlLogix Motion Control Module (or equivalent)
- Internet Access
- Dry-erase board for examples, assignments, etc.

Provider Expectations

The contractor will provide the following:

- Student Workbook with exercises
- RSLogix 5000 Instruction Set Reference (Digital)
- Select Procedure Guides
- Lab results can be provided if desired
- 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
- Identifying Servo Motion Elements
- Tracing the Power Supply Circuit
- GSV/SSV

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- Creating a Motion Profile
- 10-Step Drive Tuning Process

Day 2

- 10-Step Drive Tuning Process Review
- Identifying and Applying a Reference
- Motion State Instructions
- Practical Exercises
- Motion Group Instructions
- Practical Exercises
- Motion Move Instructions
- Practical Exercises

Day 3

- Motion Move Instructions Continued
- Practical Exercises
- Motion Event Instructions
- Practical Exercises
- Motion Configuration
- Practical Exercises

Day 4

- Motion Coordinated
- Practical Exercises
- Coordinating between controllers
- Comprehensive Programming Exercises
- Assessment

Preparation

It may be necessary for the instructor to have time working with your specific setup. This time ensures the materials are updated for your equipment. These hours are billed at the regular rate of \$125 per hour. No more than three days will be needed for this effort.

Adjustments

It may be necessary to adjust the course curriculum based 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 Automation](#) to discuss. Price may vary depending on the extent of changes.