MEGADRIVE AUTOMATION
ELECTRICAL ENGINEERING FOR PLANT & PROCESS

MITSUBISHI ELECTRIC | FACTORY AUTOMATION | OFFICIAL PARTNER

Megadrive Automation Training Centre

Course: PLC Level 1 - Basic

ENROL TODAY AND GET A FREE PLC AND PROGRAMMING SOFTWARE

Unlock Your Potential in Industrial Automation with Mitsubishi PLC Training

Join us for a transformative learning experience in industrial automation with our Mitsubishi PLC Training program. Designed for beginners, this course equips you with the foundational skills needed to excel in process control systems.

Course Level: PLC Level 1 - Basic Entry into the world of industrial automation

Duration: 3 days

What's Included:
- Lunch provided daily
- Computer equipment supplied
- Free PLC (FX5U-32MR/ES) and licensed programming software (GX Works3) with your PLC Training

Venue: Megadrive Automation Training Centre

Date: 17 -19 September 2025

Time: 09:00 – 16:30

Price: R 17,000 Including VAT

Requirements: This course is suitable for any candidate looking to embark on a journey in process control systems. No previous knowledge of control systems is required, although a basic understanding of electronic circuits is beneficial. Basic knowledge of Windows applications is required.

For enquiries and bookings, contact us.

Course Content

This comprehensive course covers essential topics and practical skills needed to effectively work with Mitsubishi PLC systems in industrial automation settings, providing participants with a solid foundation for further advancement in the field.

Configuring the FX5U System
Learning how to set up and configure the FX5U PLC system, including hardware installation and basic system settings.

System Configuration Rules
Understanding the rules and guidelines for effectively configuring PLC systems to ensure proper operation and compatibility with automation processes.

Model Selection Tool
Explore the PLC configuration tool for and learn how to use it to customize and build a system according to your specific industrial requirements.

I/O Assignment
Understanding Input/Output (I/O) assignments, mapping physical inputs and outputs to corresponding addresses within the PLC system for control and monitoring purposes.

Input Wiring
Learning the principles of input wiring, including connection methods, signal conditioning and safety considerations for integrating sensors and other input devices with the PLC system.

Output Wiring

Similar to input wiring, this section covers the principles and best practices for wiring output devices to the PLC system, ensuring reliable control of actuators and other output devices.

Ethernet Built-in

Exploring the built-in Ethernet capabilities of PLC systems, understanding protocols and communication methods for networked automation environments.

Serial Communication

Understanding serial communication protocols and configurations for interfacing with external devices, such as Human-Machine Interfaces (HMIs) and other control systems.

Built-in Analog

Learning how to configure and utilize built-in analog input/output modules for handling analog signals within the PLC system, enabling precise control and monitoring of analog processes.

High-Speed I/O

Exploring high-speed I/O modules and techniques for handling rapid input/output operations, essential for applications requiring fast response times or high-speed data acquisition.

Programming the PLC – GX Works3

Introduction to GX Works3 programming software, learning basic programming concepts and techniques for developing PLC programs to automate industrial processes.

Memory

Understanding different types of memory within PLC systems and their roles in storing program logic, data and system parameters.

Labels

Utilizing labeling techniques to organize and document PLC programs effectively, enhancing program readability and simplifying maintenance tasks.

Types of Program

Exploring various types of PLC programs, including ladder logic, function block diagrams and structured text, understanding their respective advantages and applications.

Programming

Hands-on experience in writing, testing and debugging PLC programs using GX Works3 software, applying programming concepts learned throughout the course to automate specific industrial tasks.

Debugging

Learning techniques for troubleshooting and debugging PLC programs, identifying and resolving common programming errors and system faults to ensure reliable operation.

e-Manual Viewer

Introduction to the e-Manual Viewer tool for accessing digital documentation and resources related to Mitsubishi PLC systems, facilitating ongoing learning and reference.

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Supported by
Mitsubishi Electric Europe B.V. - Italian Branch

Contact Details

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MEGADRIVE AUTOMATION
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Mitsubishi PLC Training Registration Form

Training Date	___/___/ 2025	**Training Location**	Megadrive Automation, 27 Fourie Street Brackenfell, Cape Town

Registration forms to be completed, signed and emailed to info@megadrive.co.za

Company	
Postal Address	
Phone number	

ATTENDING DELEGATE DETAILS

First Name		**Surname**	
Department		**Job Title**	
Email		**Phone Number**	
ID Number			
Signature			

Terms and Conditions

1. Registration forms to be received by no later than two weeks before the training date, in order for arrangements to be made with regards to refreshments and security access to the premises.
2. Delegates are responsible for making their own flight, shuttle and accommodation arrangements.
3. Megadrive cannot be held liable for costs that may be incurred due to injury or illness sustained during the training.

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