

# PROGRAMMABLE LOGIC CONTROLLER BASICS

**Definition:** A programmable logic controller, or PLC, is an industrial digital computer designed to provide highly reliable use in harsh industrial environments while dealing with extreme temperatures, strong vibrations, and dusty or wet conditions.

## IS A PLC THE SAME AS A COMPUTER?

While all PLCs are computers, not all computers are PLCs. PLCs are designed to hold up to the needs of the industrial workplace, and they must control machinery or fixtures reliably despite conditions.



## WHAT ARE THE FEATURES OF A PLC?

PLCs use I/Os (Inputs/Outputs) to trigger specific results. They also use communication protocols or SCADA systems, as well as HMIs (human machine interfaces) that allow users to review or input information, as well as a CPU and a power supply.

## WHAT ARE PLCS USED FOR?

PLCs are used in a number of electromechanical processes to control factory assembly lines, machinery, light fixtures, and even amusement park rides.



## WHAT ARE POPULAR PLC BRANDS?

Some popular brands of PLCs include Siemens, [GE](#), [Automation Direct](#), & Reliance Electric.

## HOW IS A PLC PROGRAMMED?

While some PLC manufacturers offer proprietary software, most PLCs use ladder logic. This is a traditional programming language that mimics circuit diagrams. This kind of program is typically easy to understand and implement.



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