

Programmable Logic Controllers

Course Information

Developers: Automation Engineer Technology State Curriculum Committee

Robert Blume, Hutchinson Community College; Charlie Randazzo, Johnson County Community College; Richard Fort, Johnson County Community College.

Developed Date: 01/27/2014

KBOR Facilitators: Rita Johnson/ Shirley Antes/ April Henry/ Lisa Beck

Business & Industry Liaison: Steve Reed – KASA Companies, Ronald Owings – Spirit Aerosystems and Mike Hart – Spirit Aerosystems

Credit Hours: 3

Description:

This course examines types, installation and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course.

Competencies

1. Demonstrate the safety procedures when working with programmable logic controllers
2. Identify the types and components of a programmable logic controller
3. Connect a programmable logic controller to a programming device
4. Select the proper wiring and terminations of inputs and outputs
5. Identify the numbering systems used in programmable logic controllers
6. Identify the symbols used in programmable logic controller relay ladder logic
7. Develop a functional programmable logic controller program
8. Document a programmable logic controller program
9. Demonstrate the process of programmable logic controller system troubleshooting