

# Level 2: Advanced Mechatronics

## PLC Technology II: Allen Bradley or Siemens



**Estimated Duration: 16 hours**

Level 2

PLC II expands on the topics covered in PLC I and utilizes the same equipment. Students will go deeper into programming PLCs, incorporate HMI (Human Machine Interface) programming and modifying programs to include changes in the applications. This is a highly sought after skill in modern industry.

### Industry Recognized Certification Topics

- Ladder Logic Programming
- Basic functions: operation and programming
- Program modifications
- Uploading and downloading programs to a PLC
- HMI (Human Machine Interface)
- Basic Networking
- Troubleshooting

### Core Competencies

- Program a PLC using ladder logic
- Upload and download programs to/from a PLC
- Understand and program basic PLC functions
- Modify a current PLC program
- Program HMI Applications
- Understand and explain basic networking fundamentals

### Equipment

#### Advanced PLC Training System

- Allen Bradley or Siemens PLC
- Siemens or Allen Bradley HMI
- Stratix 2000 industrial Ethernet switch
- 16 digital inputs
- 16 digital outputs
- 4 universal analog inputs
- 2 configurable analog outputs
- 3 high-speed counters
- 2 high-speed counter output points
- 2 NO push-buttons
- 2 NC push-buttons
- 4 toggle switches
- 2 potentiometers
- 8 indicator lamps
- Eight electric fault switches

