

Entry Level Automation Engineer



STRENGTHS

- ♥ **Practical troubleshooting**
Capstone debugging became calmer with a signal checklist that helped teammates locate wiring faults before retesting.
- 🔧 **Operator focused design**
Operators understood revised HMI labels after a screen walkthrough gathered their feedback before equipment handoff.
- ✍️ **Clear documentation**
During a busy lab build, change notes let the next student resume tests without guessing what had changed.
- 💎 **Careful verification**
Cross checks on I/O tables caught mismatched addresses before peers started commissioning equipment.
- 💡 **Reliable handoffs**
Team handoffs stayed clear when open faults, owners, and next checks were summarized at each review.

SKILLS

PLC programming Ladder logic

HMI design Industrial robotics

Commissioning

Electrical drawings

Sensor integration Machine safety

Fault logging

Preventive maintenance

I/O checkout Cycle testing

Industrial networks

AutoCAD Electrical SolidWorks

SUMMARY

Entry level automation engineer with academic training and supervised manufacturing experience in PLC controls, **HMI configuration**, **industrial robotics**, and **equipment testing**. Supports automation improvements by translating **electrical drawings** and operator feedback into careful updates, then validating changes through documented checks. In manufacturing placements, contributed to conveyor and assembly equipment projects, where clear fault records and practical handoff instructions helped technicians and operators work through troubleshooting safely. Coursework and project work have built a foundation in ladder logic, industrial networks, sensor integration, and machine safety. Collaboration with engineers, maintenance teams, and line staff has shaped a methodical approach to commissioning and continuous improvement. Ready to support a manufacturing team with dependable controls execution and thoughtful attention to safe, usable equipment.

EDUCATION

Bachelor of Science in Electrical Engineering

University of Wisconsin Milwaukee 🎓 GPA: 3.62 📅 2024 📍 Milwaukee, WI

Coursework: Control Systems, Programmable Logic Controllers, Industrial Robotics, Electrical Machines, Manufacturing Processes

TECHNICAL SKILLS

- **PLC programming:** Rockwell Studio 5000, Siemens TIA Portal, ladder logic
- **HMI design:** FactoryTalk View, WinCC, alarm displays
- **Industrial robotics:** FANUC teach pendant, robot frames, payload setup
- **Electrical controls:** Schematic reading, I/O lists, 24 VDC circuits
- **Sensors and instrumentation:** Photoelectric sensors, proximity sensors, limit switches
- **Industrial networks:** EtherNet/IP, PROFINET, Modbus TCP
- **Machine safety:** Guard interlocks, emergency stops, OSHA 10 General Industry
- **Commissioning and testing:** I/O checkout, cycle testing, fault logging
- **Mechanical automation:** Conveyors, pneumatic actuators, changeover tooling
- **CAD and documentation:** AutoCAD Electrical, SolidWorks, wiring diagrams

EXPERIENCE

Automation Engineering Intern

Lakefront Packaging Systems 📅 May 2024 - August 2024 📍 Kenosha, WI

Supported controls engineers during packaging line updates, with responsibility for PLC changes, HMI checks, and documented equipment validation. Coordinated with maintenance staff and operators to clarify alarms and record findings during supervised production trials.

- Updated PLC **ladder logic** under engineer review, improving jam recovery sequencing on a packaging conveyor.
- Mapped sensor I/O and verified wiring against **electrical drawings** before supervised **commissioning** tests.
- Built HMI screens for alarm status and operator setpoints, then checked labels with line staff.
- Recorded fault patterns during production trials and shared **troubleshooting** notes with maintenance technicians.
- Validated **photoelectric sensors** and **safety interlocks** using approved checklists before equipment handoff.

Manufacturing Automation Co op

Northstar Assembly Technologies 📅 January 2023 - August 2023 📍 Waukesha, WI

Assisted manufacturing engineers with setup and upkeep of an assembly robot cell and adjacent conveyor equipment. Prepared control documentation, supported preventive checks, and followed approved procedures during tests and operator handoffs.

LANGUAGES



MY CAREER



- Automation Engineering Intern at Lakefront Packaging Systems (3 Months)
- Manufacturing Automation Co op at Northstar Assembly Technologies (7 Months)

- Assisted with robot cell setup by checking tool frames, reach limits, and guarded operating zones.
- Edited PLC tag documentation and cross referenced signals with panel drawings for maintenance use.
- Ran repeatable cycle tests after approved logic changes and logged faults for engineer review.
- Supported **preventive maintenance** by inspecting connectors, pneumatic lines, and sensor alignment on **assembly equipment**.
- Prepared changeover instructions with operators, clarifying sequence checks and safe restart steps.

PROJECTS

Automated Conveyor Sorting Demonstrator 📅 2024

Designed a tabletop conveyor sorting demonstrator to explore reliable part detection and operator feedback. Connected photoelectric sensors to a PLC, developed ladder logic for reject timing, and added an HMI status view. Test notes captured missed detections and informed adjustments to sensor placement and sequence timing.

Robot Pick and Place Cell Study 📅 2023

Developed a supervised academic study of a robot pick and place cell to understand safe sequencing and repeatable motion. Built a cycle outline, checked reach and tool frame assumptions in simulation, and documented guarded operating steps for a clear operator handoff.

LEADERSHIP & AWARDS

- Received the 2024 Electrical Engineering Capstone Design Recognition for a clear, well tested automation demonstrator.
- Selected as 2023 Controls Lab Team Coordinator, organizing equipment checklists and preparing project updates for faculty reviews.

CERTIFICATIONS

- OSHA 10 Hour General Industry 📅 2024
- FANUC HandlingTool Operations and Programming 📅 2025

PROFESSIONAL AFFILIATIONS

- Student member of IEEE since 2022, participating through the local student branch and its engineering activities.
- Student member of the Society of Manufacturing Engineers since 2023, connected with manufacturing engineering resources and the student community.

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST