

Tucker Peters

☎ (919) 555-6724 ✉ tucker.peters@example.com 💼 linkedin.com/example/tuckerpeters 📍 Raleigh, NC 27606

SUMMARY

Manufacturing engineer with four years supporting automated production equipment, **industrial controls**, and regulated manufacturing operations. Troubleshoots PLCs, HMIs, machine **vision systems**, robotic equipment, servers, motion devices, and manufacturing software across production environments. Delivers **controls changes** through requirements review, design evaluation, change control, qualification, validation, and acceptance testing. Applies Allen Bradley and Siemens platforms, FactoryTalk, Wonderware, Studio 5000, Ignition, Ladder Logic, Structured Text, **Function Block Diagram**, and Python in practical engineering work. Supports CAPA, NCR, GMP, ISO, and FDA quality processes while interpreting electrical schematics and coordinating vendors. Partners with operations, quality, safety, and engineering teams, trains technical staff, and improves reliable manufacturing performance through thoughtful troubleshooting and disciplined project execution.

EXPERIENCE

Manufacturing Controls Engineer

April 2025 - Present

ClearSight Medical Manufacturing

Raleigh, NC

Supports automated medical device production lines, owning controls troubleshooting, equipment improvements, quality investigations, technical training, and documented releases within regulated operations.

- Restored production through **Allen Bradley** PLC, FactoryTalk, vision, robot, server, and motion troubleshooting.
- Released Studio 5000 **Ladder Logic** changes after documented testing and formal production **change control**.
- Planned controls upgrades through requirements review, schematic evaluation, risk assessment, qualification, and validation evidence.
- Configured machine vision **inspection jobs**, improving repeatable detection through parameter tuning with quality engineers.
- Resolved recurring equipment issues through NCR and CAPA investigations with operations, quality, and safety.
- Trained **operations engineers** and technicians on alarms, troubleshooting, operation, and **automated equipment** maintenance.

Controls Engineer

June 2023 - March 2025

Piedmont Automation Solutions

Durham, NC

Developed controls solutions for automated assembly and inspection equipment, guiding design reviews, vendor coordination, motion integration, commissioning, and acceptance testing for regulated manufacturing clients.

- Developed PLC, HMI, and motion solutions for automated assembly and inspection equipment.
- Programmed Allen Bradley and Siemens systems using Ladder Logic, **Structured Text**, and **Function Block Diagram**.
- Integrated servo axes and **robotic arms** with sequences, **safety** interfaces, and HMI controls during commissioning.
- Built **FactoryTalk**, **Wonderware**, and Ignition screens, tags, alarms, and operator equipment state displays.
- Translated manufacturing requirements into controls specifications through machine design reviews and schematic interpretation.
- Coordinated vendor quotes, sourcing, procurement, and acceptance testing for standard and custom components.

Associate Manufacturing Engineer

June 2022 - May 2023

Carolina Precision Devices

Cary, NC

Supported regulated production equipment under engineering guidance, contributing to troubleshooting, qualification, **change control**, documentation, investigations, and cross functional reliability efforts.

- Resolved PLC, HMI, sensor, vision, and communication faults during supervised production support.
- Executed approved PLC logic changes, documented tests, and returned equipment through controlled release.
- Supported **equipment qualification** by executing protocols, recording deviations, and organizing evidence for quality review.
- Traced signals through **electrical schematics** to verify field devices and isolate equipment faults.
- Contributed technical findings to NCR and CAPA investigations involving recurring equipment and process issues.
- Tracked project actions with **operations**, **quality**, and safety teams during equipment reliability improvements.

PROJECTS

Automated Vision Inspection Qualification 📅 2025

Qualified inspection job changes for automated medical device production, combining vision parameter tuning, documented testing, quality review, and validation evidence.

Motion Control Integration Program 📅 2024

Integrated servo axes and robotic arms with machine sequences, safety interfaces, and operator controls during commissioning and acceptance testing.

LEADERSHIP & AWARDS

- Lean Six Sigma Yellow Belt recognition, 2023, applied structured improvement methods during manufacturing engineering work.

- Studio 5000 Logix Designer Fundamentals achievement, 2024, recognized practical PLC programming capability.
- Technical training contributor, coached operations engineers and technicians on automated equipment troubleshooting and maintenance.

EDUCATION

Bachelor's Degree in Electrical Engineering
North Carolina State University GPA: 4.0
Coursework: Industrial controls, electrical systems, programming, manufacturing engineering

2022
Raleigh, NC

CERTIFICATIONS

- Lean Six Sigma Yellow Belt 📅 2023
- Rockwell Automation Studio 5000 Logix Designer Fundamentals Certificate 📅 2024

TECHNICAL SKILLS

- **PLC Platforms:** Allen Bradley, Siemens, Studio 5000
- **HMI Platforms:** FactoryTalk, Wonderware, Ignition
- **Programming Languages:** Ladder Logic, Structured Text, Python
- **Control Methods:** Function Block Diagram, PLC programming, control configuration
- **Motion Systems:** Servo axes, robotic arms, motion devices
- **Vision Systems:** Machine vision, inspection jobs, inspection parameters
- **Manufacturing Software:** Power BI, FactoryTalk, Ignition
- **Quality Systems:** CAPA, NCR, GMP
- **Regulated Standards:** ISO, FDA, GMP
- **Acceptance Testing:** Vendor acceptance testing, site acceptance testing, qualification
- **Engineering Documentation:** Electrical schematics, control panel documentation, validation evidence
- **Project Methods:** Change control, risk assessment, design reviews

SKILLS

- | | | | |
|-----------------------------|---------------------------|-------------------------|--------------------------|
| • Manufacturing engineering | • Equipment qualification | • Project management | • Production support |
| • Industrial controls | • Validation | • Technical training | • Quality systems |
| • PLC troubleshooting | • CAPA investigations | • Vendor coordination | • Continuous improvement |
| • Change control | • NCR investigations | • Electrical schematics | |

PROFESSIONAL AFFILIATIONS

- Manufacturing engineering collaboration across operations, quality, safety, and controls teams.
- Industrial automation community participant focused on PLCs, machine vision, robotics, and production reliability.

LANGUAGES

- English (Native)
- Spanish (Beginner)

ADDITIONAL INFORMATION

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

REFERENCES

AVAILABLE ON REQUEST