

YANDI REGALADO BLANCO

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Senior Control Systems Engineer & Engineering Manager | Industrial & Mission-Critical Automation

PROFESSIONAL SUMMARY

Hands-on Senior Automation and Control Systems Engineer with 15+ years of experience delivering complex automation projects in high-volume, regulated, and mission-critical environments. Extensive expertise in PLC/HMI development, industrial robotics, machine vision, system integration, FAT/SAT execution, troubleshooting, and continuous improvement initiatives. Track record includes multi-site facility deployments, PLC/HMI/SCADA architecture, industrial robotics integration, and FAT/SAT execution from design through go-live. Known for building reliable systems, collaboration across multidisciplinary engineering teams, and translating operational challenges into sustainable automation solutions.

CORE COMPETENCIES

PLC / HMI / SCADA Design, Programming & Troubleshooting | System Integration, Commissioning & Startup | Automated Control System Design & Architecture | FAT / SAT Execution | Machine Vision & Inspection Systems

P&ID & Electrical Drawing Interpretation | Industrial Networking, Ethernet/IP & Control System IT Integration | Capital Projects & Equipment Modernization | Regulated manufacturing & Pharmacy Automation Environments

Engineering Leadership & Team Development | Multi-Project Execution (Scope, Schedule, Budget) | Vendor Management & Contract Oversight | Technical Proposal & ROI Development | QMS Compliance & Continuous Process Improvement

TECHNICAL PLATFORMS

Beckhoff TwinCAT | Rockwell Automation (Allen-Bradley, Studio 500 | Siemens Step 7, TIA Portal | PLC & HMI Systems / Ladder Logic, Structured Text (ST), Function Block Diagram (FBD) | SCADA Systems (Ignition, WinCC) | Industrial Machine Vision (Cognex, SICK, OpenCV) | Automated Inspection & Verification Systems | Robotics (Universal Robots UR, Fanuc & Denso) | Barcode / Scanning Technologies (Keyence) | Industrial Automation Networks | SolidWorks & AutoCAD

PROFESSIONAL EXPERIENCE

Engineering Manager – R&D & Automation | Optum Rx (UnitedHealth Group) Jan 2020 – Feb 2026

Led a five engineer multi-specialty team and managed \$5-10M capital automation portfolios across high-volume pharmaceutical fulfillment operations.

- **Designed, programmed, integrated, and commissioned PLC/HMI-based automation systems supporting high-speed pharmacy orders processing, verification, sorting, and packing equipment.**
- **Supported robotics integration, commissioning, troubleshooting, and safety validation for automated handling and processing systems in regulated production environments.**
- **Integrated machine vision platforms including Cognex, Keyence, SICK, and OpenCV-based inspection technologies for product verification, barcode validation, tracking, and process accuracy improvement.**
- **Designed control system architecture incorporating P&IDs, electrical schematics, and instrumentation specifications; ensured network infrastructure and IT integration met both operational and regulatory requirements.**
- **Led continuous improvement initiatives that enhanced system reliability, standardized engineering processes, and improved project delivery performance.**
- **Led integration and deployment of advanced pill counting, verification, scanning, and sorting systems at a 50,000 Rx/day facility in Mesa, AZ, hands-on from specification through FAT, SAT, and commissioning.**
- Troubleshoot and resolved complex automation issues in live production environments, working directly with PLCs, HMIs, vision systems, robotics, and integrated scanning equipment to minimize downtime and protect throughput.
- Collaborated with mechanical, electrical, software, operations, and vendor teams to deliver multimillion-dollar automation projects from concept through production.
- Managed, developed and mentored a team of five engineers across automation, controls, robotics, and systems integration disciplines, overseeing career progression, workload distribution, and performance feedback while sustaining a high-output delivery culture.
- Managed concurrent capital automation projects ranging from \$5M to \$10M, driving full project lifecycles from design through commissioning while keeping scope, schedule, and budget aligned across multiple simultaneous engagements.

Automation Engineer | **Optum Rx (UnitedHealth Group)** Sep 2016 – Jan 2020

Designed, integrated, and commissioned automation systems across one of the nation's largest pharmacy fulfillment networks.

- Collaborated on a five-engineer team to evaluate, design, and deliver five pharmacy automation facilities nationwide in under three years, supporting a combined throughput of 250,000 prescriptions per day, including Controls integration, startup, commissioning and validation activities.
- Designed, programmed, and optimized PLC and HMI systems for a facility processing 40,000 Rx/day, sustaining high system availability and resolving field issues to minimize unplanned downtime.
- Executed FATs and SATs for new control system equipment and facility builds, validating PLC/HMI performance, network configuration, and compliance requirements prior to production deployment.
- Served as primary technical contact during project execution, coordinating with internal teams and external vendors to resolve integration issues, manage scope changes, and keep customer commitments.
- Interpreted technical specifications, P&IDs, and electrical drawings to support automation implementation, troubleshooting, and system validation across multiple facility types.
- Supported industrial networking and communications integration between PLCs, HMIs, scanners, vision systems, robotics, and connected production equipment.

Automation & Control Systems Specialist | **Pharmaceutical Industries - QUIMEFA, Cuba** Sep 2007 - Sep 2012

Delivered end-to-end control system design, integration, and commissioning for a pharmaceutical manufacturing group.

- Designed and implemented PLC, HMI, and electrical control systems for pharmaceutical production equipment, interpreting P&IDs and wiring diagrams from specifications through commissioning.
- Led modernization projects replacing legacy control platforms with updated automation technologies, improving equipment reliability and production uptime.
- Produced technical documentation, electrical schematics, and regulatory compliance reports; provided hands-on training and field support to operations and maintenance staff.

Ride Control Systems Technician | **DTZip SlotZilla - Fremont Street Experience** Feb 2014 - Sep 2016

- Maintained, inspected, and troubleshooted ride control systems (hardware and software), ensuring safety and operational continuity; managed parts inventory and responded to emergency repair calls.

Facilities Maintenance Technician | **Cancun Resort, Las Vegas** Dec 2013 - Feb 2014

- Performed maintenance and troubleshooting on HVAC, elevator, lighting, and compressor systems; maintained accurate daily maintenance records.

EDUCATION

B.S. Automation Engineering | CUJAE – University of Havana, Cuba | 2002–2007

Relevant Coursework: Control Systems, PLC Programming, Robotics, Nonlinear Control, Automation Design

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- UR Collaborative Robot Training | Online | Dec 2025
- Fanuc Collaborative Robot Training | St. Joseph, MI | Sep 2024
- Beckhoff PLCs & TwinCAT Systems | Denver, CO | Oct 2022
- Denso Robotics Training | Long Beach, CA | Nov 2017
- Rockwell Automation Training & PDHs | Anaheim, CA | Nov 2014
- Postgraduate Diploma in Nonlinear Control | Havana, Cuba | 2009
- Postgraduate Diploma in PC-Based Control Systems | Havana, Cuba | 2009