Kurt J. Foster

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My passion is designing, building, testing and repairing complicated devices. There's little else as exciting as working tirelessly on a dedicated team enabling a complex machine to come to life, this is at the core of what drives me through difficult tasks. I have four years of hands-on electromechanical experience, plus a two-year degree in automation technology.

WORK EXPERIENCE

Repair and Maintenance Technician — *Aug 2023 - Present • 4 mos*
Hewlett-Packard, HP Inc. [Corvallis, OR] — Full-time

- First responding troubleshooter diagnosing a wide variety of electromechanical issues
- Determining root cause analysis of circuitry, control panels, and mechanical systems
- Editing and troubleshooting PLC ladder logic and command language programs
- Interpreting mechanical drawings, schematics, printouts, specifications, and test procedures

Automation Systems Technician — *Mar 2021 - Jul 2023 • 2 yr 5 mos*
Enriched Gravity, ABN [Corvallis, OR] — Full-time

- Testing components at an individual level, keeping track of performance measured
- Translating custom PTC Onshape CAD to real world results, and constant iteration through the issues
- Continuous improvement of design, as it progresses from test bed to prototype
- Updating PLC logic and microcontroller code for component testing, and associated wiring changes
- Creating accurate analysis of data recorded, in order to optimize machine output in performance
- Adhered to the NASA Technical Standard 8739.4A for highly robust wiring assembly

Equipment Maintenance Technician — *Jun 2018 - Feb 2021 • 1 yr 7 mos*
Tesla, Inc. [Sparks, NV] — Full-time

- First responding problem-solver managing machine breakdowns and full recovery
- Diagnosing machine faults and laying out plan to execute repair or escalation procedure
- Troubleshooting electrical systems ranging from 24VDC to 480VAC 3-phase
- Diagnosed equipment failures and suggested improvements to process engineering
- Prevented 500+ drive units from fallout, approx. $3.6mm savings according to Sr. Process Engineer
- Repaired automated machinery, requiring full knowledge of the functional operation
- Mentored production associates on equipment updates and safe throughput

Automation Technician Intern — *Mar - May 2018 • 3 mos*
Andrews Cooper, Inc. [Corvallis, OR] — Internship

- Fabricated complex robotic machinery and manufacturing equipment
- Wired control panels using electrical diagrams and PTC Creo Elements CAD
- Assembled and connected MIL-Spec multi-pin connectors, up to 56-pin
- Worked with procurement and parts organization for timely machine assembly

SKILLS

Computer Software:

- Component design and assembly: Autodesk AutoCAD, SolidWorks, PTC Creo, PTC Onshape
- Manufacturing: Ignition! SCADA System, Tesla MOS for NC material and production line parts
- Programming Languages: HTML/CSS/JavaScript, basic C++, Linux CLI
- Microsoft Suite: Excel Visual Basic, Visual Studio

Industrial Automation:

- Rockwell Allen-Bradley RSLogix 5000 PLC programming, wiring and troubleshooting
- FANUC America Industrial Robot: fault recovery, troubleshooting, program selection, and actuation
- Microcontrollers: Arduino, Raspberry Pi, BeagleBoard
- Pneumatic & Hydraulic assembly and schematic creation with FluidSim software
- ArcFlash rated PPE trained, LOTO/OSHA-10 experienced

Machine Shop:

- Manual vertical mill and lathe for basic parts
- MIG, TIG, & Oxy-Acetylene welding experience, Steel & Aluminum
- CNC experience with simple 6061 aluminum mountain bike parts

EDUCATION

***Associate of Applied Science*,** *2016 to 2018 • 2 Yrs.*

Industrial Automation Technology [LBCC] GPA: 3.9/4.0

Learned the fundamentals of electro-mechanical assembly and testing, Programmable Logic Controllers, industrial maintenance, electrical troubleshooting, hydraulic/pneumatic assembly and testing, and process-control/instrumentation.

Engineering Electives: Computer Science Orientation, Microcontrollers in Research and Design, Engineering Orientation, Preparatory Chemistry, and Introduction to AutoCAD.

PROJECTS

Please refer to kfost.com for more detailed information:

- Fully automated nutrient dosing machine for hydroponics
- Bearing supply, sorting, and placement manufacturing station
- Dual HP wafer handling automated parts transfer prototype
- Reverse engineered aluminum mountain bike frame
- Truss-style newtonian reflector telescope