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SUMMARY

Electromechanical Engineer with broad technical, project, and fast-paced cross-functional team experience. Specialize in robotics, complex electromechanical design, and industrial automation. Experienced in transitioning early concepts into production.

TECHNICAL COMPETENCIES

- Electro-mechanical**
 - Multidisciplinary design and methodical problem solving in team environments.
 - Integration of a variety of sensors, encoders, motors and drivers.
 - System-wide troubleshooting and Root Cause Analysis across multiple subsystems.
 - System performance analysis and optimization, specialized in robotics.
- Mechanical**
 - Mastery of SolidWorks (CSWP), experienced in PDM, FEA, and Simulation tools.
 - Creation and management of large CAD assemblies with multiple contributors.
 - Skilled in design for Rapid Prototyping, Manufacturability, and Assembly.
 - Experienced in CNC Milling & Lathe, Sheet Metal, and Additive Manufacturing.
- Automation**
 - Experienced in industrial Controls, Robotics, and Safety (Rockwell, FANUC, ABB, KEYENCE).
 - SCADA implementation and HMI design (Ignition, Networking, EtherNet/IP).
- Software**
 - Git, Python, C, Java, moderate experience in SQL, Object Oriented Programming

PROFESSIONAL EXPERIENCE

Feb 2022 – **SOFT ROBOTICS INC. – Bedford, MA**
Present **Robot System Integration Engineer / Applications Engineer**

- Took responsibility for entire systems through design, manufacturing, integration and tuning of all modules.
- Sourced and integrated variety of high precision sensors, encoders, motor drivers, and safety equipment.
- Systematically dissected intricate electromechanical challenges into manageable components
- Led the delegation of tasks within a team of 6 engineers across different disciplines on a per-project basis.
- Integrated multi-camera ML based vision systems with robots for high speed real-time picking applications.
- Collaborated closely with the software team through the development and release testing phases.
- Led system-level testing across various integration stages of complex robotic systems.
- Setup and optimized robot motion, vision systems, and EOATs for pick-place applications.
- Designed and built robotic cells, control cabinets, and demos to showcase key aspects of our technology.
- Designed and implemented PLC, HMI, and Safety architecture across multiple robotics cells.
- Developed EtherNet/IP communication interfaces for 3D vision systems for real-time and upstream setups.

May 2021 – **ENTEGRIS INC. – Billerica, MA**
Feb 2022 **Industrial Automation Engineer**

- Troubleshoot electromechanical systems including motors, pneumatic, heating controls, and PLCs.
- Gained an in-depth understanding of complex systems for effective diagnosis and improvements.
- Led the development and the rollout of Ignition based HMIs for a variety of custom processing equipment.
- Integrated new equipment into the existing SCADA network and helped develop the MES infrastructure.
- Mentored 2 Automation interns. Projects: Climate control integration with SCADA & HMI design.

May 2020 – **ENTEGRIS INC. – Billerica, MA**
Aug 2022 **Process Engineering Co-op**

- Designed a laser engraving cell with 150 custom parts. Saved approximately \$90k by replacing EOL tools.
- Designed all aspects of the tool including overall chassis, fixturing, and safety systems.
- Generated comprehensive design files for manufacturing, assembly, and operation of complete systems.
- Conducted analysis such as FMEA, risk assessments and change control for tool qualification.

May 2019 – **VECNA ROBOTICS – Waltham, MA**
Aug 2019 **Mechanical Engineering Co-op**

- Designed and built an automated multi-axis precision turntable using various encoders and mechanisms.
- Designed a sensor suite to accommodate the localization needs and autonomous vehicle safety protocols.
- Designed and prototyped mounting for the various sensors using sheet metal, laser cutting, and machining.

EDUCATION

WENTWORTH INSTITUTE OF TECHNOLOGY – Boston, MA
Bachelor of Science in Electromechanical Engineering, Graduated May 2021
Minor in Manufacturing Processes