

Lead Electronics Systems Architect

Bravo LT needs you to be a part of our highly motivated group of technology experts. We share a passion for technology and the community we serve, and we are committed to building long-lasting, productive relationships. We focus on giving back to the community, positively impacting society, and providing quality solutions that work. We believe in autonomy, mastery and purpose and in trusting people to do the right thing - and we think Bravo LT is a pretty great place to be a part of.

The Lead Electronic Systems Architect is responsible for leading the architecture and integration of electronic systems into floor care products, including wash, vacuum, deep-cleaning, air-care, portable cleaning, and robotic products. This person will have Systems Engineering experience in defining and architecting electronic systems that include embedded PCBAs, loads, sensors, motors, batteries, power supplies, connectivity, and user interfaces. The candidate is expected to have experience in developing requirements, writing specifications, and modeling electronic systems using SysML or UML diagrams. Technical analysis and evaluation of electronic hardware and software, as well as characterization of mechatronic loads and sensors are also key activities for this role in the development process

Responsibilities

- With some oversight, create new product concepts and design that can be realized through hardware technologies and prove out feasibility of innovative functions and features that contribute to key product performance requirements.
- Key role in new and existing product development projects as the lead architect and systems integrator of electronic systems into new floor care products. This role services as the primary interface for electronics into x-functional product development teams.
- Define overall electronics architecture and select key technologies for new products. Choices should be derived using engineering analysis methods to study tradeoffs and manage risk (performance, cost, quality) in projects.
- Collaborate with internal and external electronics development teams and technology suppliers to deliver a complete electrical system including PCBAs, loads, sensors, and wiring.
- Utilize and demonstrate proficiency in electronic systems engineering to develop requirements and specifications for hardware and software systems that can be integrated into products as well as with the connected home.
- Utilize hardware and software design resources to create and evaluate electrical schematics, PCBA layouts, firmware architecture, firmware code, and communication protocols.
- Work closely with the product development engineers to integrate the mechanical aspects of the product into the overall floor care product design.
- Work closely with the compliance engineers to obtain product approvals for electronic systems, if applicable, and approvals of the overall product that are dependent on electronics.
- Provide knowledge and guidance for quality improvement and cost reduction projects involving electronic systems within floor care products.

Basic Qualifications

- Bachelor's degree in EE or CE (Master's preferred)
- Specific concentration in:
 - Embedded systems technology including electronic PCBAs, loads, sensors, motors, batteries, power supplies, connectivity and user interfaces is required.
 - Experience in systems engineering discipline developing requirements and defining system architecture using SysML/UML is also needed to be successful.
- 7+ years minimum in software, electrical, or systems engineering

Preferred Qualifications

- Embedded System Experience: Understanding of microcontroller based PCBA and firmware design, distributed systems, safety critical systems, and the definition of communication and power interfaces.
- Battery Systems: Experience with lithium-ion battery packs and charging systems.
- Connectivity: Experience working with wired and/or wireless communication protocols.
- Machine Control Technologies: Experience in developing embedded systems to drive loads such as motors, pumps, and fans. Experience in developing sensor-based product features with infrared, ultrasonic, capacitive, or RF sensing technologies.
- User Interface Technologies: Experience in developing embedded user interfaces including technologies such as LCD display, LED lighting, capacitive touch, and audio.
- Robotics: Understanding of automation and navigation technologies. Experience in developing feedback control systems and related algorithms. Vision systems a plus.
- Systems Analysis: Familiarity with trade studies in system design based on constrained resources. Experience in system performance simulation using tools and languages like Python and Matlab.
- Systems Thinking: Experience applying Systems Engineering principles across the electrical and mechatronic elements of a complex system.

To apply for this opportunity, please visit the Bravo LT Career Opportunities webpage at:

<http://bravoLT.com/careers/>