



## **Job Description: Electrical Engineering Lead**

### **Job Title:**

Electrical Engineering Lead

### **Status:**

Salary, Level I

### **Reports to:**

Director of Engineering

### **Job Summary:**

The purpose of this job is to support VPW electrical designs needs in lithium-ion battery power utilization and distribution, and the research and development of energy storage technologies.

This a lead Engineering Position responsible for the successful development and execution of New Product Development.

As an independent contributor to the engineering of electrical systems, subsystems, and components, the lead engineer will develop plans, schedules, and implement projects beginning with design, to building and testing of prototypes and implementation of product into production.

The position requires a hands-on Engineer. The person in this position will operate within a team and be able to work self-sufficiently with minimal need for oversight or detailed direction to develop products that meet VPW project targets of quality, cost, and timing.

### **Essential Job Functions:**

- Create and release relevant engineering drawings, including electrical/electronic system diagrams, network communication diagrams, schematics, wiring, and components.
- Must be able to troubleshoot to components level, and test and document performance at various temperatures and modes of operations.
- Inspects, tests, maintains, installs, and makes electronic repairs to the built-to-order battery and charging products; coordinates and instructs the work of skilled trades assistants.
- Define, develop, and supervise the design of high voltage systems and their manufacturing.
- Maintains a high level of safety awareness in all aspects of the work and product assembly processes.
- Performs all work in compliance with all applicable electronics and electrical codes, standards, and regulatory requirements.
- Proficiency in the development and writing engineering requirements, test plans, and specifications, defining software requirements. Experience with source code creation and/or issue resolution and management.

- Leads in the selection of components, materials, and suppliers that meet required compliance and safety requirements in support of design activities.
- Assists other trade workers with special projects involving the development of manufacturing and testing systems.
- Conforms to safety standards as prescribed.
- Supervises lower level engineers.
- Performs other duties as assigned.

### Minimum Requirements:

- 3+ years of experience in the field of designing Power Electronics, Condition, and Health Monitoring.
- BSEE and a minimum of 5 years' experience as a Hardware Engineer or Electrical Engineer.
- Design electrical circuits and PCBs using Altium Designer as well as software development.
- Ability to work in cross-functional teams and make decisions on technical matters. Work with system applications and customers to define interfaces between hardware and software and specify design solutions.
- Firmware and software development experience with Microchip PIC processors and integrated design environments.
- Must have developed and gone through the life cycle of the product.
- Must have used Mathcad, Matlab, P-spice, and others.
- Must have designed systems using analog and digital systems.
- Self-motivated with the ability to manage multiple tasks.
- Prior experience in battery management systems and vehicle electrification a strong plus.
- Must possess and maintain a valid Driver License.

### Knowledge, Skills, and Abilities:

- Experience in PCB layouts understands safety/UL requirements, understands different compliance standards like IEC, Gerber files, manufacturing practices, understands NPD processes, transitioning of NPD to Mfg, and understands the interface of PCBAs with mechanical components.
- Skill to work safely under hazardous conditions such as working in the presence of live high voltage conductors and surfaces.
- Skill to diagnose and determine corrective action for electronic control circuits with the aid of engineering documentation. Capability to troubleshooting to the component level.
- Working knowledge of DFMEA, Six Sigma principles and tools, 8D problem solving, and manufacturing/assembly.
- Requires the ability to display knowledge of occupational hazards and safety precautions.



## **Job Description: Electrical Engineering Lead**

- Always acts professionally and courteously, representing VPW's highest standards of business conduct, exhibits a positive attitude, sharing information with co-workers as appropriate, and works to promote a cooperative, productive teamwork environment.
- Requires the ability to supervise employees developing, installing, or repairing technology systems.

### **Physical Demands:**

While performing the essential functions of this job the employee is regularly required to sit, stand, and walk, use hands to finger, handle, or feel, reach with hands and arms, climb or balance, stoop, kneel, crouch, or crawl, and lift and/or move up to 100 pounds. The work also requires the following physical abilities to perform the essential job functions: grasping, hearing, mental acuity, pushing, pulling, repetitive motion, talking, and visual acuity.

### **Working Conditions:**

Employees in this position work in a dynamic environment that requires sensitivity to change and responsive to the evolving goals, priorities, and needs.