



JOB DESCRIPTION

Job Title: Hardware Engineer, Electrical	FLSA Status: Exempt, Full Time
Reports to: CTO	Last Revision: 2/3/26

SUMMARY

This is for a position as part of a team tasked with the design and implementation of various products in the area of fuel cell power systems at H2PowerTech LLC. The key responsibility of this position is the design and troubleshooting of PCBAs and electrical components.

The ideal candidate is someone

- can bridge the hardware-software interface developing integrated solutions
- with experience in digital design using Verilog HDL, firmware development in C and embedded Linux system development.
- with broad experience with PCBA design
- with broad experience with the control of electro-mechanical and electrical devices
- who has a solid understanding of fuel cell technology and electrical components
- who is creative and thinks 'outside the box' when looking for cost effective solutions

PRIMARY RESPONSIBILITIES

- Designs, develops, and analyzes all aspects of analog and digital hardware.
- Specify system level electrical architecture while working closely with controls engineers.
- Utilize current technologies in component selection, manufacture, test, and design methods.
- Utilizes experience in hardware and controls to achieve cost effective designs that best fit the project requirements while implementing state of the art technologies.
- Provides technical support to manufacturing facilities and field service engineers.
- Provides technical support for product certification.
- Performs or works with outside labs to provide root cause failure analysis of failed PCBAs and electrical components.

MINIMUM QUALIFICATIONS

- Requires a bachelor's degree in engineering (Electrical Engineering and/or Computer Science Engineering preferred) and at least 5 years' experience in the field or in a related area.
- Understands hazards of and can work safely when working with high energy battery systems and 3 phase line voltages of 240VAC.



- Familiar with Altium Software; symbol creation, schematic capture and layout including footprint creation.
- Knowledge of the PCB manufacturing process and ISO standards for manufacturability.
- Experience working with PCB Fabricators.
- Experience with obtaining product safety certification.
- Demonstrated success in a team environment.
- Experience with product commercialization and documentation requirements.
- Experience in mixed signal design.
- Experience in failure analysis and troubleshooting.
- Experience designing and building wire harnesses.
- Experience developing and debugging embedded Linux applications.

ADDITIONAL CONSIDERATION FOR THE FOLLOWING QUALIFICATIONS

- More than 10 years' experience in PCBA design.
- Understands fuel cell technology.
- Design and troubleshooting experience for high power DC systems.
- Lead teams obtaining product safety certification.
- Design of both analog and digital closed loop control systems.
- Programming skills for real time embedded microcontroller-based products.
- Knowledge of FPGA/CPLD development tools for design and simulation typically using Verilog.

WORKING CONDITIONS

Primary environment: Normal interior/office work environment and/or laboratory.

Secondary environment: Manufacturing environment. May be exposed to loud noises, changing temperatures, machinery with moving parts, and exotic materials.

PHYSICAL REQUIREMENTS

Lifting up to 50 lbs, manual dexterity, visual acuity, 'hands on' person

TRAVEL REQUIREMENTS

Travel within the US and foreign countries a few times per year with overnight stays up to 14 days during an international trip.

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