

## **SENIOR HARDWARE DESIGN ENGINEER**

### **JOB SUMMARY:**

The job of a Senior Hardware Design Engineer requires advanced formal engineering education, prior experience in analog and digital HW design, superior problem solving skills and independent decision-making ability. The role includes the ability to manage the product's architectural and structural design, formulation of the HW requirements and generally oversee the design of the product for harsh environmental and electro-magnetic environments.

Typically the job includes the design and development of both analog and digital circuits and implementation of the hardware building blocks in a team setting. This position reports to the Engineering Manager and is part of a dynamic team implementing positive change to an already excellent organization.

### **RESPONSIBILITIES:**

- Analyze user's requirements and create a detailed hardware architecture and formal structured design
- Perform circuit analysis and traceability from user's requirements to formal design
- Design of electronic circuits using suitable components, systems and equipment, including prototypes and test interfaces/equipment
- Prepare material cost and timing estimates, reports and design descriptions for electronics systems and equipment
- Prepare for and conduct design reviews (DDR, PDR, CDR, etc) as required
- Supervise the work of more junior designers and/or other engineering employees
- Provide presentations to customers on hardware design and operation
- Assist with preparation of estimates, schedules, compliance matrixes and costing for bids
- Plan, develop and lead verification/qualification testing of products based on RTCA DO-160 and/or MIL 461/810
- Produce estimates for work packages and submit reports on activities to the Engineering Manager

### **QUALIFICATIONS:**

- Bachelor's Degree in Electrical or Aerospace Engineering
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- Minimum six (6) years of related design experience using embedded control systems in the aviation industry preferably for Engines, Nose Wheel Steering, and Landing Gear control
- At least five (5) years experience in electronic product design and reliability analysis, including digital and analog building blocks (discrete I/O, analog I/O, Hi side/Lo side drivers, 4-20mA, pressure transducers, thermocouples, serial communications, transistors, FET's, PLD's, etc)
- Design experience of electronic circuits for harsh EMC/EMI environment and lightning protection (HIRF)
- Working knowledge and experience of commercial aviation and/or military specifications, standards and practices: ARP-4754, RTCA DO-160E/F/G, MIL-STDs and ARINC STDs and DO-254 would be to your advantage
- Strong understanding of design risk management, safety, obsolescence, reliability, costs and cost drivers is desirable
- Experience with DOORS Orcad, Matlab and PSPICE are assets
- Working experience with safety of performance critical products; aerospace, robotics or medical product design experience a definite asset.
- Excellent analytical and problem solving skills;
- Must be able to reliably meet deadlines while paying close attention to detail
- Must be eligible to met requirements of CGP or ITAR
- Computer literate and proficient in Microsoft Word, Excel, PowerPoint and MS Project
- Both verbal and written communications skills play an important role in this position

This posting reflects the general duties of the position but is not a detailed description of all duties which the successful applicant may be asked to perform.