



SENIOR HARDWARE DESIGN ENGINEER

ABOUT US:

Smartrend Supply Ltd., established in 2004, is a leading manufacturer of customer-specific components and assemblies for transportation and general industrial applications. In 2018, First Light Safety Products was created as a subsidiary of Smartrend Supply Ltd. First Light, an innovative and progressive organization, incorporates LED technology into essential safety indicators to improve the visibility of school buses, thus increasing the safety of drivers and passengers of buses and other motor vehicles. Both organizations share a 20,000 sq ft, state of the art manufacturing facility.

SUMMARY:

The **Senior Hardware Design Engineer (SHDE)** is a leader that is professional, proficient, and creative in their design abilities. The successful candidate will be responsible for SMG and FL's line of products from R&D to product launch. The SHDE will work in a team environment to ensure internal and customer objectives are met and on time.

DETAILED DUTIES AND RESPONSIBILITIES:

- Develop, test, and support manufacturing of electronic hardware in conjunction with the rest of the design team
- Develop production test and inspection fixtures and procedures
- Conduct failure analysis and investigation of electronic failures or incidents
- Research, design and develop of electronics for new, existing programs in compliance with internal and customer specifications from concept development to production launch
- Development of analog, digital circuitry, power electronics and embedded software for SMG and FL line of products
- Ensure layouts meet EMC requirements
- Create electrical and EMC design validation test plans according to customer requirements and get customer approvals
- Design schematics and PCB layouts
- Perform design validation testing of electronic hardware
- Interact with mechanical engineering, production, software and test groups
- Work with customers and engineering staff to bring products to market
- Act as the project lead for hardware projects
- Mentor Junior Hardware Designers
- Any additional engineering activities, as assigned

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED:

- Education: BS Degree in Electronics Engineering or equivalent
- Minimum 5 years of related experience in electronics hardware design
- Experience in designing transportation, agricultural, and/or construction vehicle electronic devices/systems
- Practical knowledge and experience with debugging in a laboratory environment, and ESD design and prevention
- Experience in FPGA design, VHDL preferred
- Experience in OrCAD/Allegro (Capture, PSpice, PCB Designer) or similar tools
- Experience in defining and performing design verification procedures and acceptance test plans with focus on: transient level protection, EMI/EMC, and ESD
- Understanding of FMEAs and DFM (design for manufacturing) guidelines



- Possess creativity for product development
- Exposure to design and verification testing methods
- Strong problem-solving abilities
- Computer knowledge and skills with Microsoft Word, Excel, PowerPoint software
- Ability to prioritize and manage multiple projects simultaneously
- Project management skills an asset
- Work well under pressure and under tight timelines
- High level of organizational skills, detail oriented, and analytical
- Must possess excellent communication skills to collaborate with customers and multiple-disciplinary teams
- An energetic, diligent work ethic and able to work with little supervision
- Able to travel within Canada, the USA, and internationally, as required

Share with us your talent, drive, and entrepreneurial spirit and we will provide a creative and supportive environment, where valuable contributions are rewarded and celebrated with professional growth, job satisfaction, and an attractive total compensation program. We offer a benefits package to our employees including:

- Group Insurance Plan
- Paid Vacations

We would like to thank all applicants who apply, however, only those selected for an interview will be contacted