

Senior Electrical Engineer Job Description

Black Light Surgical (Los Angeles, CA)

COMPANY

Black Light Surgical creates imaging and diagnostic tools that give vital, immediate feedback in the operating room, emergency room, and clinic. By improving the information available to guide time-critical treatments and by simplifying traditionally difficult examinations, we work to promote the best patient outcomes possible.

JOB SUMMARY

The Senior Electrical Engineer will design and develop complex medical devices, typically for use in an operating room environment, in collaboration with other engineering team members. He or she will participate in all technical aspects of product creation, including hazard analysis, requirements definition, specification setting, transfer to manufacturing, and V&V testing, and may also direct some aspects of manufacturing at external vendors. The Senior Electrical Engineer must have sufficient experience to provide a working knowledge of relevant regulatory and safety standards and procedures. He or she will work under the direct supervision of the CSO, though likely also at the behest of a Project Manager or Engineering Lead.

CHARACTERISTICS AND QUALIFICATIONS

1. Adept in electrical system design for medical devices, especially for cart-based systems.
2. Experienced in generating requirements and design outputs, as well as verification / validation procedures.
3. Familiar with design of medical products in compliance with FDA and ISO requirements (e.g. ISO 60601, ISO 14971, etc.), including the use of risk management to guide system design.
4. Able to generate technical drawings, schematics, and assembly / sub-assembly instructions.
5. Able to research and analyze design proposals, specifications, manuals, and other data to evaluate the feasibility, cost, and maintenance requirements of designs or applications.
6. Able to create electrical systems for a device comprised of custom and OEM electronic subsystems.
7. Able to develop associated physical layout and cable harnessing through proper component and subsystem level design, ensuring compatibility among various signal (such as TTL, USB, high-speed) and power interfaces.
8. Able to design systems that meet various electrical requirements, such as power, EMI/EMC and noise requirements, in devices that use a heterogenous mix of signal protocols and power interfaces.

9. Able to effectively co-ordinate and work with external vendors for custom parts and assembly fabrication.
10. Able to work in a “fast and small” startup work environment while also creating a quality product that complies with all appropriate standards and regulations.
11. A familiarity with embedded systems, National Instruments products, FPGAs, and circuit board design (Digital and/or Analog) is preferred.

EDUCATION AND EXPERIENCE

1. MS or PhD in Electrical Engineering. Bachelor’s degree may be considered if accompanied by extensive medical device development experience.
2. Minimum of 10 years industry experience with more than 5 years in medical device design.
3. Programming skills in C++, Matlab, and/or embedded systems.

APPLICATION

To submit yourself for consideration, please send your cover letter and resume to Pramod@BlackLightSurgical.com.