

June 12, 2023

iotaMotion is hiring a Senior Embedded Systems Engineer.

**About the position:**

iotaMotion develops and commercializes robotic-assisted surgical technologies. The first commercially available product is iotaSOFT® Insertion System, which controls the insertion of a cochlear implant to improve outcomes for surgeons and subsequently patients. As a member of our team, you will have the opportunity to engage with surgeons to optimize their treatment of those with hearing loss.

This individual will serve as Senior Embedded Systems Engineer. The Senior Embedded Systems Engineer will report directly to the CTO. The ideal candidate has strong organizational and project management skills. The individual will work closely with team members to create and maintain procedures relevant to medical device hardware and software development.

We are seeking candidates that have strong technical and communication skills, experience with electronics design and testing in a medical device R&D environment, knowledge and skill with embedded software development, and a desire to work with enthusiasm in a fast-paced, dynamic startup environment as a member of a small team. The successful candidate will be able to work independently to accomplish tasks and should be motivated and comfortable translating general directions into actionable tasks and deliverables. Candidates must be able to devote 40 hours per week to company deliverables.

Desirable skillsets and experiences may include medical devices, underwater robotics, electrical control system design, embedded systems, wireless communications, PCB layout and design, mechanical design, fabrication, general knowledge of design process methods, quality systems, and GMP.

**Position responsibilities include but are not limited to:**

- Function as a lead technical resource for development and support of medical products. Design, prototype, and develop analog and digital electronic circuits and supporting software.
- Coordinate and support electrical safety (IEC 60601-1), safety of HF Surgical Equipment (IEC 60601-2-2) and EMC (IEC 60601-1-2) certification testing.
- Study the latest revision of standards to ensure existing products meet those standards.
- Provide continuous technical support to maintain and improve cost, performance and quality.
- Provide engineering support to customer service, marketing and other departments for instrument or system performance problems.
- Working with contract manufacturers and suppliers to ensure product is built to specifications, investigating production issues, qualifying new parts due to new suppliers or process change, transfer product to production or moving from one manufacturing facility to another.
- Investigate field failures to determine and implement design/process changes
- Mentor and develop junior engineers.
- Provide regular performance updates to the team.

**Requirements:**

- BS, MS, or PhD in Electrical Engineering, Computer Engineering, or a related field.

- Minimum of 5 years of experience in embedded systems engineering, with a strong emphasis on medical device development.
- Experience with microcontroller-based designs.
- Expert knowledge of embedded systems design and development, including proficiency in system level programming and system configuration in Linux.
- Strong understanding of medical device regulations such as FDA and ISO standards.
- Experience with risk management and hazard analysis for medical devices.
- Experience with electrical design tools such as Altium Designer, OrCAD, or similar software.
- Proficiency in Electronics (mixed-signal, analog and digital) design, simulation and testing
- Proficiency in using lab equipment and debugging tools such as oscilloscope, logic analyzer and multimeters
- Experience in Electrical safety (IEC/UL 60601-1), safety of HF Surgical Equipment (IEC 60601-2-2), and EMC (IEC60601-1-2) certification testing
- Experience testing complete firmware or software solutions for embedded systems using C/C++, Verilog or assembly language in Linux operating system.
- Proven experience using electronic bench equipment such as oscilloscopes and function generators for the bring up and troubleshooting of hardware
- Proven experience in a fast paced, high transaction environment providing solutions throughout the entire product lifecycle
- Debug software and perform reviews of test automation frameworks.
- Strong analytical and problem-solving skills.
- Excellent verbal and written communication skills
- Ability to work independently and in a team environment. Strong communication skills and ability to collaborate with cross-functional teams.

**Nice to Have:**

- Experience in BLDC motor controller and RF design
- Experience in real-time systems development
- Additional desirable areas of experience include: higher-level programming skills, (UI applications, DevOps), Labview, Matlab, Solid Works, CREO, Fusion360, mechanical testing, statistics
- Experience in design of implantable devices
- Contribute to design documentation for test protocols, results and reports and complete tracing for all software requirements.
- Assist in analysis of test and field data, identify non-conformance trends, generate concise executive summaries, and recommend design improvements.
- Familiarity with software configuration management tools, defect tracking tools and effective peer review techniques
- Experience with designing products in an FDA or other regulated industry or for mission critical applications is desired; comfort with concepts of design input, design output, traceability, and risk analysis

Interested and qualified applicants please submit your resume and cover letter to [jobs@iotamotion.com](mailto:jobs@iotamotion.com)



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