

Sr. Electrical and Systems Engineer

Mission statement

Prytime Medical's mission is to design and develop rapidly delivered minimally invasive solutions for vascular trauma. The individual who will thrive in this position is a self-motivated, experienced senior electrical and systems engineer who enjoys the fast pace and accountability of a small company and wants to take high value ideas from concept to commercialization.

Responsibilities include:

- Design, document, test, iterate, commercialize and support single/multi-use electronic and electro-mechanical medical devices
 - Devices will include open loop, semi-closed loop, and closed loop feedback systems
- Create, modify and maintain software, firmware, and hardware
 - Working knowledge of microcontroller based systems: architecture, software development, synthesis, analysis, problem solving, troubleshooting and testing of embedded software and hardware
- Generate engineering models and drawings
- Assemble prototypes, iterate design, and support manufacturing
- Create, execute, document and validate test methods
- Establish compliance with electronic medical device standards
- Provide engineering support for the manufacturing of products
- Create/maintain a project budget
- Write/review technical reports
- Create/maintain specifications

Primary

- BS, MS or PhD in electrical engineering
- Minimum 10 years hands-on design and development experience with electronic devices
- Experience taking at least one medical device from concept to commercialization
- Experience designing, fabricating, and testing PCBAs
- Testing and validation of electronic systems
- Strong engineering fundamentals (mechanics, dynamics, electrical, fluids, etc)
- Competent working under Quality Systems, FDA and ISO regulations
- Electrical design software experience
- Strong experience with Design of Experiments and statistical techniques
- Project management experience
- Excellent ability to multi-task between projects
- Experience with creating, documenting and supporting intellectual property (IP)
- Excellent interpersonal/communication skills
- Confident taking initiative
- Ability to share knowledge in a team setting

Secondary

- Experience designing electronic medical devices, catheters preferred
- Understanding of clinical and regulatory pathways, IP and internal processes
- Knowledge of basic human anatomy
- Knowledge of clinical settings such as in vivo labs and hospital operating rooms

Software Engineering skills:

- Communication Protocol Stacks: Bluetooth, BTLE, 3G, Wi-Fi, Mesh Networks, ANT, Gazelle, LTEM, SigFox, Proprietary protocols

- Embedded microprocessor and microcontroller software development
- Operating Systems: iOS, Android, Windows CE, Windows XP embedded, Windows, Embedded Linux, iOS, RTXC, IRMX, BSP, etc.
- TCP/IP wireless and Ethernet networking
- IIC, Serial and SPI Driver and implementations
- DSP algorithm and software development
- Simulations utilizing Matlab, Mathcad, Zemax, Mathematica, Labview
- Algorithm identification and integration

Electrical Engineering skills:

- Safety critical systems engineering, redundancy, FMEA, etc.
- Digital signal processing
- PCB design / Functional prototype / rapid PCB
- Application specific integrated circuits
- Analog and digital design / simulation
- Spice modeling and simulation
- Broad array of microprocessor experience: CISC, RISC, DSP, PIC, PSoC, TI MSP430, TI AM35 5X, Motorola HC05/12/16, 56000DSP, ARM Family single and multi-core, Intel ATOM, Thunderbolt, Freescale IMX etc.

Regulatory and agency testing and support

- UL, MECA, CSA, ETL
- EMC / FCC Testing
- IEC 60601-1, IEC 61010, EMC, EMI

Travel

- Yes, 15%