NeuroNexus

Instrumentation Engineer

Permanent, Fulltime position, Ann Arbor, MI

Company Description

NeuroNexus is a fast-growing neurotechnology company that develops and commercializes high-value neural interface technologies, instrumentation systems, and analytics and visualization software for neuroscience and clinical applications. NeuroNexus is known for innovative, professional-grade devices, systems, and tools to empower discovery in the life sciences.

NeuroNexus' platform technologies have spawned dozens of innovative products to enable leading-edge research in thousands of labs all around the world. Our products include a broad range of thin-film neural probes and electrode arrays, instrumentation systems for electrophysiological recording and stimulation, and data analytics and visualization software. Our products are used across a wide variety of applications from scientific investigations of neural circuits of insects to developing powerful, next-generation diagnostics and functional therapies for significant indications in neurology and cardiology.

Summary/Scope of Position

With the fast-expanding field of neuroscience and neural engineering, there is a need for constant development in neurotechnology and tools that support neuroscience research. In regards to this, the position will involve being part of a team that researches the current needs of neuroscience research, designing/developing the technology and products that answer those needs, and supporting researchers who use these tools. Thus, the position will require innovative product designing based on heavy interaction with customers. Position will also be involved in various projects for technology development and the associated experiments. The last aspect of the position is to support the manufacturing operation, thus requiring a close relationship with manufacturing to develop strategies and solutions to production-related issues.

ESSENTIAL FUNCTIONS: 1. Design/develop/validate new products for the neuroscience research community, 2. develop/test new instrumentation technology and techniques in neural engineering, 3. develop and design documentation and procedures for new products, 4. communicate with customers and provide technical support, 5. work closely with manufacturing to develop cost/production-effective strategies

Requirements

- Bachelor's or Master's Degree in Electrical/Biomedical/Mechanical Engineering or related field
- 1-5 years of experience in circuit design, programming instrumentation or firmware development & debugging.
- 1-5 years of designing/performing experiments
- A high level of analytical ability, as well as an understanding of electrical & mechanical engineering theory and principles.
- Proficiency with conventional mathematical analysis software (Matlab), data acquisition software (Labview), CAD software (Solidworks) and experience in low level programming languages, firmware design, debugging, and profiling (C / C++).

Special Skills/Experience Preferred

- Leadership: Projects require self-direction and ability to adjust to changes in priority and scope. NeuroNexus is a dynamic team-oriented organization, which demands a sense of urgency, customer focus, and process improvement.
- Interpersonal: Clear and concise communications skills, influential capabilities, and an ability to work within a dynamic/multidisciplinary team.
- Strong problem solving and troubleshooting capabilities
- Design and implementation of testing protocols
- Interests & knowledge of electrophysiology measurements

Desired Attributes

- Innovative
- Detail oriented & able to deliver solutions
- Ability to work in a multi-disciplinary team including engineers and neuroscientists
- Good writing and verbal communication skills
- Resourceful, flexible and adaptable

Responsibilities

- Design, develop, and validate new neural engineering products for the NeuroNexus platform of technologies of implantable microscale neural probes, systems and software.
- Develop and optimize cost/production-effective manufacturing processes for products and components using internal resources and external vendors.
- Develop and design documentation, procedures and protocols for new products.
- Support manufacturing team through training, process optimization, and data analysis.
- Work closely with sales & marketing group to support efforts including technical sales, product marketing and product launches.
- Directly engage with customers for new product opportunities and provide technical support.

NeuroNexus offers a fast-paced, interesting and fun work environment that encourages employees to be both productive and innovative. Employees work both independently and as part of a multi-disciplinary team, all focused on developing innovative technologies for interfacing with the brain.