



Job Title: Design Engineer	Job Code:	DSGENG
Department: Engineering	Division:	Ithaca, NY
Reports to: Engineering Manager - Sensors	FLSA Status:	Exempt
Hours: Full-time – 40 Hrs/week	Rev Date:	09-05-2017

Primary Function

Perform engineering duties in planning, designing and verifying products, accessories and other mechanical and electrical equipment. Oversee design and production of new products and accessories. Develop the supporting documentation required to transfer design to manufacturing and to support regulatory and quality requirements.

I. Duties and Responsibilities

- Mechanical and Ultrasound design, testing and validation
- Read and interpret blueprints, mechanical drawings, schematics, and computer-generated reports.
- Develop, coordinate, or monitor production, including selection of manufacturing methods, fabrication, or operation of product designs.
- Develop or test models of alternate designs or processing methods to assess feasibility, sustainability, operating condition effects, potential new applications, or necessity of modification.
- Specify system components or direct modification of products to ensure conformance with engineering design, performance specifications, or regulatory requirements
- Recommend design modifications to eliminate product or system malfunctions.
- Work closely with engineering team members to implement design and process improvements
- Interface with clinical advisors to gather input for design and evaluation of new products.
- Analyze design or requirements information for mechanical and electrical equipment or systems
- Design of products, using drafting tools or computer-assisted drafting equipment.
- Design test control apparatus or equipment or develop procedures for testing products.
- Research and analyze design proposals, specifications, manuals, or other data to evaluate the feasibility, cost, or maintenance requirements of designs or applications.
- Evaluate mechanical designs of current products and prototypes of new products
- Oversee production and design work in machine shop
- Understand risk management in the scope of medical devices and assess product risk in terms of its use and potential misuse.
- Manage New Product Development projects and utilize design controls in these projects.
- Document technical design details and process engineering change orders.
- Demonstrate superior technical protocol and report writing skills, especially for Verification and Validation testing.
- Recommend technical design or process changes to improve efficiency, quality, or performance
- Perform other work-related duties as requested, directed or assigned by management

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II. Working Relationships

- Interact with engineers or other personnel to resolve design issues and provide technical information
- Interact in cross-functional teams to define design goals, identify manufacturing impact and address regulatory and quality requirements within the scope of new and sustaining engineering efforts.

III. Education and Experience

- Bachelor's Degree in Mechanical Engineering, Biomedical Engineering or similar field required
- 3-5 years' experience preferred
- Experience in 3D solid modelling required, Pro-E/Creo preferred
- Experience in Finite Element Analysis (FEA) and its application is a plus.
- Experience in design controls and risk management within a regulated industry.
- Experience with additive manufacturing techniques is a plus.

IV. Knowledge, Skills and Abilities

- Proficient in 3D CAD modeling is a must have. Pro-E/Creo is preferred.
- Knowledge of MS Office tools.
- Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models
- Knowledge of machines and tools, including their designs, uses, repair, and maintenance
- Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture
- Ability to analyze operational needs and product requirements to create a design
- Able to identify measures or indicators of system performance and the actions needed to improve or correct design issues
- Strong troubleshooting skills
- Strong verbal and written communication skills
- Excellent problem solving and time management skills
- Good mechanical aptitude and knowledge
- Self-motivated and highly organized

V. Supervisory Responsibilities

- No Direct Reports



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VI. Physical Demands

- Position primarily requires sitting, standing, walking, stooping, reaching and talking in an office and manufacturing environment
- Must adhere to safety requirements.
- Corrected vision is required.

VII. Work Environment

- Work environment would include office setting; manufacturing shop floor; and machine shop.
- Occasional exposure to manufacturing floor and the elements such as odor, noise, dust, heat, cold or chemicals
- Minor regional or domestic travel may be required.

Disclaimer: This Job Description is not intended to be all-inclusive, and may be subject to change to include new responsibilities and tasks or change existing ones as management deems necessary to meet the ongoing needs of the company.