

Vanessa Research, Inc.

Job Description

Title: Sr. Biomedical Design Engineer
Division: R&D
Job Function: Design Engineer
Time Status: Full time
Location: Hamden, CT

Duties and Responsibilities:

- * Design and develop electromechanical medical products from concept;
- * Expert knowledge and experience with 3D CAD software (Creo/Pro Engineer preferred);
- * Expert knowledge of analytical software such as Ansys, CE-Tol, Minitab, MathCad, MATLAB, Simulink, LabView;
- * Expert knowledge and ability to design to Geometric Dimensioning & Tolerancing per ASME standards Y14.5M-1994. Advance tolerance analysis in 2D and 3D;
- * Integrates electronic components with mechanical designs;
- * Prepares full documentation in accordance with relevant internal SOPs and Design Control;
- * Interacts with suppliers, participates in DFM and DFA processes to access component and assembly manufacturability;
- * Participates in FMEAs and follows up on generated recommendations;
- * Participates in pre-clinical in vivo labs, observing cases in hospitals and through planned and unplanned customer interactions;
- * Participate in design focus groups;
- * Designs, assembles and evaluates prototypes;
- * Writes engineering reports and creates presentations as required to document and communicate results;
- * Institutes design changes based on internal and external customer feedback;
- * Collaborates with peers to manage the development of appropriate testing to verify product meets internal and external customer requirements;
- * Communicates with electrical, software, clinical, manufacturing and test engineers;
- * Leadership/mentorship of junior engineering staff;
- * Expertise with mechanical design, design for manufacturability, engineering prints and GD&T

Basic Qualifications

- * Bachelor's Degree in Mechanical Engineering or Biomedical Engineering or required; Master's Degree preferred;
- * Minimum of 12 years relevant experience. Five years medical device experience preferred;
- * Understanding of medical device industry and competitor products. Full knowledge of other related disciplines including cross-functional fields and market competition;
- * Understanding of clinical and regulatory pathways, IP and internal processes;
- * Knowledge of electromechanical/mechatronic systems;

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Additional Qualifications

- * Excellent communication skills both oral and written. Effectively communicate and works cooperatively with others as part of a team;
- * Thorough knowledge of laboratory instrumentation and computer software skills utilizing research-based applications;
- * Knowledge of manufacturing processes including sheet metal forming, polymer thermoforming, metal casting, paint and finishing, injection molding, machining, extrusions;
- * Mastery of statistical process control in mass production as well as Six Sigma (DFSS) for design validation and optimization;
- * Outstanding abilities with and wide application of drafting practices, GD&T, 1D tolerance analysis and 3D analysis;
- * Knowledge of kinematic and stress analysis of mechanical systems;
- * Thermal analysis of heat flow through electronics chassis;
- * Prior experience designing to meet IEC60601 testing;
- * History of working with formal engineering requirements in DOORS, Jama or similar software;

Other Desirable Skills:

- * Working knowledge of Microsoft Office;
- * In-depth knowledge and experience with 3D CAD software (ProE preferred);
- * In-depth knowledge of FEA software, CE-Tol, Minitab, MathCad, LabView;

About Vanessa Research:

VRI was founded on the desire to build a 21st Century, sustainable innovative, entrepreneurial organization by bringing together a collection of diverse scientists, engineers, business professionals and academics to create solutions in medicine. The company has etched its niche in developing innovative products by commercializing complex ideas with simple solutions. This is done by creating a “fun” respectful teamwork environment conducive to open unrestrained dialog and invention.

Physical Job Requirements:

The physical demands described within the Responsibilities section of this job description are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

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EEO Statement:

It is the policy of VRI to provide equal employment opportunity (EEO) to all persons regardless of age, color, national origin, citizenship status, physical or mental disability, race, religion, creed, gender, sex, sexual orientation, gender identity and/or expression, genetic information, marital status, status with regard to public assistance, veteran status, or any other characteristic protected by federal, state or local law. In addition, VRI will provide reasonable accommodations for qualified individuals with disabilities.

This employer participates in the federal E-Verify program to confirm the identity and employment authorization of all newly hired employees. For further information about the E-Verify program, please click here: <http://www.uscis.gov/e-verify/employees>

Disclaimer:

The above statements are intended to describe the general nature and level of work being performed by employees assigned to this classification. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of employees assigned to this position.