

Job Description

Senior Mechanical Engineer

We are a small, private, and well-funded medical device company. We are seeking a hands-on mechanical engineer with strong analytical and design skills to join a multi-disciplinary team bringing a novel surgical robotic technology to market.

The ideal candidate would have had previous medical device experience.

This position will report directly to the Vice President R&D.

JOB RESPONSIBILITIES

- Lead the design of robotic platform and accessories for applications focused on console design, instrument manipulators, and instrument interfaces.
- Design and develop robust mechanical and robotic assemblies for a medical device that will be scaled to large volumes.
- Provide design, integration and test solution in a fast pace environment with a quick development cycle.
- Work with Clinical and Marketing to translate technical requirements to product specifications.
- Interface with users/clinicians to develop usability and human factors requirements.
- Interface with vendors for component sourcing and fabrication.
- Assist in the development of manufacturing fixtures and instrumentation.
- Develop assembly and test procedures.
- Independently manage projects and outside consultants.
- Support Clinical efforts at US and OUS Clinical sites.
- Responsible for sustaining production (including new features, yield improvements, DFM, process related cost reductions, etc.)

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required:

- BSME required, MSME preferred. Minimum of 5 years of working experience with robotic or electromechanical systems.
- Proven experience of mechanism design, robotics and automation. Medical robotics a strong plus.
- Highly desirable for a product minded individual, ability to combine complex mechanical systems into a product that meets or exceeds patient and physician needs.

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- Proven experience with design of electromechanical systems. Experience with motion control, position sensing, feedback loop algorithms, motors, different encoder types, brakes and linear actuators.
- Proven experience of drivetrains components such as geartrains, lead screws, splines, cams, linear guides, belts and pulleys.
- Comfortable with all phases of the product development lifecycle including design, implementation, debug, verification, qualification, and transfer to Manufacturing.
- Proficiency using CAD to design and document mechanisms: SolidWorks (required)
- Strength in design analysis.
- Demonstrated knowledge of component manufacturing process (including machining, sheet metal, rapid prototyping, injection molding, casting, MiM, weldments, etc.)
- Mechanical design and analysis skills, including statics, dynamics, kinematics, strength of materials and stress analysis.
- Strong understanding of component selection criteria, and design for reliability and manufacturability.
- Experience with designing hardware products in an FDA or other regulated industry; comfortable with concepts of design input, design output, traceability, and risk analysis.
- Familiarity with IEC-60601-1 requirements a plus.
- Ability to communicate effectively (written, oral) across all levels and organizations.

REASONING ABILITY

Will require the ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

PHYSICAL DEMANDS

The physical demands described here 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.

While performing the duties of this job, the employee is regularly required to stand, walk, and sit. The employee is occasionally required to use hands to finger, handle, or feel. The employee must occasionally lift and/or move up to 15 pounds.

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WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally exposed to moving mechanical parts and toxic or caustic chemicals. The noise level in the work environment is usually moderate.

We are seeking enthusiastic individuals to join our extraordinary team. We recruit the highest level of talent and provide a positive working environment that fosters growth and creativity.

Want to work with a passionate team of innovative engineers? Send us your resume to hr@procept-biorobotics.com.