

TITLE: Robotics Software Engineer

DEPARTMENT: Product Development

REPORTS TO: Robotics Engineering Supervisor

BENEFITS: Medical, dental, vision, life insurance, short and long term disability insurance, paid time off package, 401k with company contribution, FSA or HSA options, educational assistance, dependent scholarship program, onsite fitness center, and much more!

General Responsibilities:

Conceptualize, develop, implement and maintain new and existing product designs using sound controls engineering principles in support of company business development efforts, marketing plans and department plans. Develop and analyze specifications, as well as business, technology and cost requirements, and implement appropriate, approved designs in a timely and cost effective manner. Take steps necessary to ensure product reliability, performance and customer acceptance.

Primary Duties - Algorithms/Controls Specific:

- Design, develop, and implement complex algorithms involving servo control, system identification and signal processing for equipment used in the medical and material handling industry
- Generate software requirements and specifications for control algorithm designs
- Investigate the feasibility of applying mathematical control principles and concepts to new products and applications
- Plan and execute research pertaining to algorithm design and validation
- Design and build algorithms that allow debugging, analysis and performance evaluation

Primary Duties:

- Develop and maintain the motion controller designs of servo motor or AC powered products
- Conceptualize and develop material handling solutions using sound controls engineering principles
- Drive innovation in system controls software
- Assist in the development of concepts and specifications for new products and enhancements
- Adhere to suitable software design and documentation practices and methodologies
- Develop and maintain standard procedures for software maintenance and custom program support
- Provide quality assurance to ensure customer satisfaction and conformance to product specification
- Adhere to project timelines and budgets
- Participate in Product Development and Business Development projects as assigned

Secondary Duties:

- Create, publish and maintain departmental procedures as assigned
- Participate in the identification and recommendation of new medical and material handling technology solutions
- Serve as a technical resource to other departments as required
- Support Product Development functional, abusive, ultimate and accelerated life testing
- Support Dealers and Customer Service in the application, quoting and ordering process
- Support Sourcing and Production in the order fulfillment process
- Support Service Department in after sales support and provide field support as required

Specific Duties

- Develop and maintain organized supporting design calculations, models, simulations, and test plans
- Develop, implement and test embedded product software for existing and new products
- Customize and maintain the embedded drive firmware for servo motor powered products

- Develop specifications for custom applications
- Provide integration support between Gorbel products and third party components
- Work closely with other members of Robotics Engineering and Product Development to provide integrated, reliable, effective solutions
- Execute engineering change notices as required

Job Qualifications:

- 4 year Mechanical Engineering, Electrical Engineering or related degree
- 5 years of professional experience minimum
- Proficient with embedded software design and PLC programming
- Motion control experience with servo, AC or stepper motors
- C/C++ programming proficiency
- Experience with other IEC 61131 programming Languages (e.g. Ladder Logic, Structured Text, Function Block, etc.)
- Proficient with PID closed-loop controller design and tuning
- Experience with Scripting, Visual Basic or Basic language
- Customer service focus
- Ability to meet tight deadlines with high quality requirements
- Project and task management skills
- Strong communication skills
- Problem solving skills
- Detail oriented

Desired Experience:

- A relevant Graduate Engineering Degree
- Medical product experience
- Material handling product experience
- PLC Software Development with B&R Products
- Microsoft Excel
- MATLAB

To apply for this position, please complete an [employment application](#) and send to careers@gorbel.com.

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