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JOB DESCRIPTION FORM

Job Title: Senior Control Software Engineer **Salary Band:**

Department Name: R&D - Software **FLSA:** Non-Exempt
 Exempt

Reports To: Director, Software **Job Class:**
Development

JOB SUMMARY:

Design and develop real-time software to implement control modeling to drive high precision mechanisms employed in advanced solid imaging systems.

Candidate Profile: Electrical and electronics engineering major with computer science background having experience developing embedded software, control software and firmware. Strong knowledge in real-time high speed digital control, mathematical algorithms and, control modeling.

PRIMARY JOB FUNCTIONS:

Primary Function

This position will work closely with hardware design group and optics group, and design software/firmware to drive scanning modules employed in solid imaging systems. These Solid Imaging systems involve mechanisms, electronics, controls, optics and imaging, software, firmware, material science, and process development. The person in this position needs to work with these technical disciplines in a team environment at the same time has the ability to work individually. Development will involve controlling high precision motors to drive mechanisms and optical devices. This includes programming processors and discreet devices, typically PLCs and DSPs.

Duties

Design and develop software to implement control modeling to drive high precision mechanisms. Work with the hardware, optics and other technical groups in designing hardware platforms on which the control software will be running. Test developed software for validation and verification. Troubleshoot and analyze software issues, and formulate solutions for new and existing solid imaging systems. Work with the other members of the software development team to integrate the control software with the application software. Write design documents and other related technical documents. Strictly follow the software development processes employed by the group.

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JOB QUALIFICATIONS:

Education and Training:

BS in Electrical and Electronics Engineering with Computer Science background.

Experience:

5 years of experience developing real-time control software.

Knowledge, Skills & Abilities:

Required:

- Knowledgeable in control theory.
- Experience in programming real-time high speed digital control.
- Experience in developing embedded software including programming advanced electronics devices such as PLC, DSP, FPGA etc.
- Experience implementing mathematical algorithms.
- Programming knowledge using C, C++ and assembly languages.
- Application of Software development processes.
- Successful completion of product development with exposure to all phases of product development life cycle.
- Experience using software configuration management systems.
- Strong team skills
- Strong written and oral communication skills.

Desirable:

- Knowledge of Physics and Optics

WORKING ENVIRONMENT /PHYSICAL DEMANDS:

The work environment characteristics and physical demands 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.

SAFETY REQUIREMENTS:

- Required to observe all safety standards and rules.
- Required to report all injuries to his/her supervisor and Human Resources within 24 hours.
- Personal protection equipment must be worn as required by the job.

CODE OF CONDUCT

Required to adhere to the Company's Code of Conduct as a fundamental business practice.

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Note: **Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.**