

Job Description
Senior Controls Engineer

Full-Time, Salaried / Exempt
Location – Swansey, NH

Job Summary

The Senior Controls Engineer is responsible for the controls engineering and support of ultra-precision machine systems for the electro-optics manufacturing industry. This position will apply Newtonian physics to motion control problems, arriving at optimal solutions based on commercially available motion controllers, motors, amplifiers and feedback products. The Senior Controls Engineer will have the ability to define and resolve complex problems. Typical projects are a combination of new development, maintenance, and revision of existing applications.

Core Responsibilities / Duties

- Subject matter expert with thorough knowledge of the controls engineering discipline.
- Solve complex controls problems using accepted engineering practices.
- Ability to lead large projects.
- Conceptualize and engineer new, unique controls systems that meet customer requirements.
- Apply controls theory for servo tuning in both the time and frequency domain using Bode and/or Nyquist analysis to maximize servo performance while maintaining robust stability.
- Identify disturbance sources and attempt to mitigate using servo gains and/or other damping techniques.
- Handle multiple projects simultaneously, meet deadlines, while effectively managing priorities and communicating progress.
- Actively participate in product design reviews and work directly with the engineering staff to develop cost effective solutions.
- Prepare and present detailed technical reports to management and staff.
- Write / publish papers and present at relevant conferences when mutually agreed upon with management.
- Contribute to written instruction and operation manuals for Nanotech's products.
- Perform in-house technical support.
- Help to achieve the completion of all projects within budget and on schedule.
- Travel up to 10% of the time.
- Perform other related duties as assigned in accordance with overall job responsibilities.

Required Education / Experience

- At least 7 years of experience in complex motion control environment such as robotics or precision positioning systems.
- Masters' Degree in an Engineering discipline.
- Experience troubleshooting difficult problems both in a production environment and at customer sites.
- Willing to travel up to 10% of time.

Preferred Education / Experience

- Doctorate in an Engineering discipline.
- Experience in ultra precision motion environment such as optics or semiconductor.
- Experience with Delta Tau motion controllers.

Competencies

- Excellent interpersonal skills (written and verbal communication, ability to articulate ideas and concepts, capable of positive influence and ability to work alone or as part of a team).
- Utilize strong verbal and written skills to communicate effectively with technical and non-technical partners at various levels.
- Self-motivated and work independently, or as part of a group.
- Excellent organizational skills, with strong attention to detail.
- Maintain professionalism with all visitors and guests.