

Senior Mechanical Design Engineer

Halo Industries, Inc.

Palo Alto, California, United States



About

At Halo Industries, we're on a mission to reinvent a decades-old semiconductor manufacturing process that wastes billions of dollars each year. Our laser-based technology will provide a drastic reduction in cost and improvement in performance that will enable advancements in a diverse set of high-tech industries, such as solar, semiconductor, battery, LED, telecommunications and power electronics.

Our company spun out of Stanford University in 2014 and is funded by a combination of VCs, government grants, and strategic corporate partners. We are hitting the ground running after a recent funding round and are looking to continue building a passionate team to meet our next milestone of deploying a pilot production line to make the world more connected, efficient, and clean.

Description

As Senior Mechanical Design Engineer, you will have the following responsibilities:

- Design, build, and test cutting edge high-precision electro-mechanical R&D and manufacturing equipment starting from initial process conceptualization through to production deployment on factory floors
- Work with fabricators in using design-for-manufacturing principles to achieve economical designs
- Work with external vendors to integrate off-the-shelf hardware with custom-designed components
- Perform root cause analysis of test failures and production issues to improve performance/throughput
- Work in a small team and contribute to the implementation of next generation high-tech materials manufacturing equipment

Preferred Education & Experience

M.S. with 10+ years experience or Ph.D. with 5+ years experience in Mechanical Engineering or a related field. Positions also available for higher experience levels.

What We're Looking For

- Strong CAD modeling proficiency (preferably Solidworks)
- Strong hands-on experience designing, assembling, and testing equipment across a variety of engineering disciplines, with emphasis on industrial and manufacturing equipment
- Strong experience with and broad knowledge of mechanical mechanism design
- Proficiency with GD&T principles and standards and experience performing tolerance stackup analysis
- Proficiency with engineering properties of materials and structural members, including mechanical and thermal properties
- Experience designing tight-tolerance electro-mechanical systems (opto-mechanical systems is a plus)
- Familiarity with precision engineering concepts such as micropositioning, kinematic design, dynamic system analysis, thermal compensation, etc.
- Hands-on fabrication/prototyping experience, such as machining, welding, and casting
- Outstanding detail-oriented analytical, creative, and problem-solving skills, with the ability to think critically to diagnose issues and optimize complex processes
- Ability to work self-sufficiently with minimal oversight and identify new engineering needs as they come up
- Excellent communication skills and the ability to work effectively in an interdisciplinary team
- Desire to play a ground-floor leadership role in a high-growth environment

Bonus

- Experience in machine design for high precision industries (i.e. semiconductors, imaging, life sciences)
- Expertise in mechatronics/automation design (motor sizing, actuator design, sensor selection, etc.)
- Experience integrating and/or programming industrial automation and control systems (VFD and servo drives, multi-axis robots, PLCs)
- Finite element analysis experience
- Past startup experience and insights/lessons learned on effectively scaling from R&D to production