

# Job Title: Senior Optical Engineer

**Job ID: 104364**

Daylight Solutions business provides industry-changing mid-infrared laser light technology for government and commercial markets, including: defense and security; life sciences; and industrial process control. As a mid-IR technology pioneer, Daylight Solutions has delivered more mid-IR systems to more applications world-wide than any other company.

Headquartered in Arlington, VA, the Company is a wholly owned subsidiary of Leonardo S.p.A. which employs more than 70,000 people worldwide. We offer a competitive compensation package and a business culture, which rewards performance. For additional information on DRS, please visit our website at [www.drs.com](http://www.drs.com).

DRS Daylight Solutions is a subsidiary of Leonardo DRS. Our mission at DRS Daylight Solutions is to be a leader in developing molecular detection, imaging and illumination systems for use in scientific research, life sciences, industrial process control, and defense applications. Mixed Generation Infrared Countermeasure Laser Systems. Multi-Spectral Beacons for Combat Identification. Sensors for Real-Time Liquid & Gas Phase Analysis. Mid Infrared Chemical Imaging.

## Job Summary

As a Daylight Solutions employee, you are part of a team with a strong entrepreneurial spirit that runs through each department. You'll roll up your sleeves and start making meaningful contributions right away, without the interference of red tape or company politics. We value creative thinking and a can-do-attitude. Our inclusive and collaborative culture comes from the top, with a management team that focuses on encouraging all employees to learn, contribute and make a difference. Our servant-based leadership model means you receive support from managers and co-workers to do your job as effectively as possible.

The Senior Optical engineer at DRS Daylight Solutions will be part of an engineering team developing novel laser components and transitioning them into products. Incumbent will perform analysis, modeling, design, prototyping and testing of laser diode-based lasers and systems. This person will be responsible for requirement flow-down, electro-optical design, interface with critical component suppliers, planning and execution of integration and test. Experience developing optical alignment processes for automation is required. Additionally, this person will be solving complex problems requiring deep understanding of material science and laser technology and excellent problem-solving skills across the company and contribute to IP, publications and business development.

At Daylight Solutions, you will be eligible for competitive pay, great benefits, including Medical, Dental, Vision, 401k match, 9/80 work schedule, and Tuition Assistance. Our Daylight family-oriented culture allows you to receive hands-on training, professional development, career advancement and exposure to the latest and greatest technology, where our motto is "To protect with Light". Come join the family!

## Job Responsibilities

- Serve as the laser and optical lead for the laser systems ranging from early concepts to product prototypes to initial production units
- Use Zemax to design and tolerance complex laser and optical systems
- Use Zemax to design and tolerance imaging systems
- Hands-on skill in optical instrumentation and metrology
- Design, build and test novel laser cavities and laser based systems
- Design, build and align optical alignment stations for production and design verification testing.
- Develop detailed alignment procedures.
- Use a deep understanding of passive and active optical alignment methods to guide designs
- Understanding of mechanical, thermal, electrical, and optical designs and components, and their interactions in a system to meet performance requirements
- Hands-on experience in the development, prototyping, testing or transfer to production of complex EO/Mechanical systems
- Responsible for evaluation of failure modes, conducting root cause analysis and implementation of corrective actions for the company products
- Appreciation and practice for engineering process rigor appropriately applied based on product/process maturity
- Interact effectively and efficiently as part of a multi-member, multi-function team, as well as with customers and

- suppliers, write reports and contribute peer reviewed publications and invention disclosures
- Support, communicate, reinforce and defend the mission, values and culture of the organization

**Required Skills:**

- Expert level knowledge of Zemax Optic Studio ray tracing design software, minimum of 3 years' experience. Working knowledge of both sequential and non-sequential simulations. Laser optical system design experience preferred. Experience using merit functions, configurations, tolerance scrips, macros, DLLs, and ZOS-API.
- Proficient at aligning and integrating complex optical table setups
- Proficient at Matlab or Labview or Python or C++
- MS Office Products

**Desired Skills:**

- Knowledge of semiconductor laser technology, laser and optical design and modeling, optical components and materials from UV to IR, optical metrology and measurement equipment.
- Experience with multimode, single mode and polarization maintaining fiber
- Laser packaging experience
- Solidworks to create opto-mechanical designs and test setups
- Knowledge of electronic test equipment for time-domain and frequency-domain measurements, control theory, and signal processing

**Qualifications**

- Bachelor's Degree in Engineering (Masters Preferred) or related technical field with a minimum of 5 years of experience (optical/laser related industry is preferred)
- U.S. Citizenship required
- Ability to obtain and maintain a DoD Security Clearance
- Fluency in technologies and application domain
- Ability to lead a technical group independently

*Leonardo DRS, Inc. and its subsidiaries and affiliates are equal opportunity employers and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability status, protected veteran status, or any other characteristic protected by law.*

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