



Optical / Mechanical Applications Engineer

Oblate Optics | Remote initially; San Diego preferred long term
U.S. citizenship required | Ability to obtain a security clearance if required

Oblate Optics is developing next-generation flat, diffractive, and metastructured optics for imaging, sensing, infrared systems, laser processing, and defense/aerospace applications. We are looking for a hands-on engineer to help build our applications lab, create customer demonstrations, test optical systems, and turn advanced optics into practical products.

This role is ideal for someone who enjoys **building hardware, aligning optical systems, testing cameras and lenses, designing fixtures, solving practical engineering problems, and working directly with customers and technical partners.**

What You'll Do

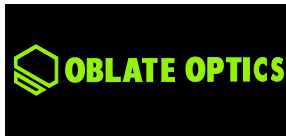
Area	Responsibilities
Applications lab	Set up and run optical benches, cameras, mounts, stages, targets, illumination, and measurement tools.
Optical testing	Build and test visible, NIR, MWIR, and LWIR imaging systems using Oblate optics and commercial components.
Mechanical design	Design mounts, adapters, fixtures, alignment tools, and prototype housings.
Characterization	Measure image quality, PSF, MTF/resolution, distortion, transmission, depth of focus, field of view, and thermal-camera performance.
Customer demos	Support demonstrations in laser processing, microscopy, thermal imaging, multiband imaging, and defense/aerospace sensing.
Documentation	Create test reports, application notes, setup guides, datasheets, and demo videos.

Required Qualifications

- B.S. or M.S. in optical engineering, mechanical engineering, physics, electrical engineering, or a related field.
- Hands-on experience building, aligning, and troubleshooting optical systems.
- Practical CAD experience, such as SolidWorks, Fusion 360, Creo, or similar.
- Experience with cameras, lenses, mounts, stages, illumination, test targets, or optical metrology.
- Ability to collect data, analyze images, and write clear technical reports.
- Strong communication skills and interest in a fast-moving startup environment.
- U.S. citizenship required due to current and anticipated defense-related projects.

Nice to Have

- Experience with infrared imaging, especially LWIR thermal cameras or FLIR/Boson/Tau-class modules.
- Familiarity with diffractive optics, metasurfaces, flat optics, aspheres, or freeform optics.
- Experience with MTF/PSF testing, interferometry, profilometry, transmission measurement, or lens-efficiency testing.
- Experience with Zemax, Code V, MATLAB, Python, LabVIEW, camera SDKs, or image-analysis workflows.
- Background in laser processing, microscopy, hyperspectral/multispectral imaging, night vision, machine vision, or aerospace/defense payloads.



Location

This position can begin remotely with periodic travel. Long term, the role may transition to San Diego, California, as Oblate Optics builds out its applications and demonstration lab.

How to Apply

Please send a resume and a short note describing one optical, imaging, or hardware system you have built, tested, or debugged to rajesh@oblateoptics.com. Links to portfolios, GitHub, technical reports, demo videos, or hardware projects are encouraged.