

LIDWAVE

Coherent 4D LiDAR-on-Chip • Silicon Photonics • Jerusalem

Senior Optomechanical Engineer

Jerusalem, Israel | Full-Time | On-Site | 8+ Years Experience

About Lidwave

Lidwave builds the world's first and only coherent 4D LiDAR-on-chip using Silicon Photonics. Our FCR™ technology delivers range, velocity, and intensity in a single measurement – where conventional sensors fail. We are scaling from prototype to mass production across automotive, industrial, defense, and security markets.

The Role

We are looking for a **Senior Optomechanical Engineer** to own the full optomechanical stack in our LiDAR modules: PIC packaging, free-space optics, thermal architecture, assembly, calibration, and production readiness. You will lead this function and grow the team as we scale. This is hands-on — you will design, simulate, build, script, operate machines, and iterate in the lab.

Key Responsibilities

- Design optomechanical packaging for SiPh chips (die bonding, free-space-to-chip coupling, wire bonding) with CTE-matched materials for high-precision alignment stability
- Design free-space optical assemblies (lens mounting, alignment); translate Zemax designs into manufacturable hardware
- Own thermal architecture: heat dissipation, active/passive thermal management; athermal optical design (dn/dT, CTE mismatch, defocus); FEA/CFD simulation
- Design alignment stations, jigs, fixtures, and tooling; define bonding processes and calibration procedures.
- Write automation scripts (Python/MATLAB) for calibration, equipment control, and data acquisition; write work instructions for technicians
- Design for hermetic sealing and environmental standards (ISO 16750, MIL-STD-810, IEC 60068); drive DFM/DFA and GD&T for volume production

Requirements

- BSc/MSc in Optomechanical Engineering, Mechanical Engineering with optics focus, or closely related field
- 8+ years in optomechanical design with deep hands-on experience

- Strong photonics expertise — designing mechanical/thermal solutions for photonic or electro-optical products (core requirement)
- Expert SolidWorks; strong FEA (SolidWorks Simulation / ANSYS) for structural, thermal, and modal analysis
- Athermal design and thermal simulation experience; knowledge of CTE matching and material selection (silicon, glass, Invar, Kovar, ceramics)
- Hands-on prototyping, precision assembly equipment, fixture and calibration system design
- Python or MATLAB for test automation and equipment interfacing
- Familiarity with environmental standards and their design impact.
- Fluent English — written and verbal
- Self-driven, resourceful — comfortable in CAD, simulation, scripting, and at the bench

Strong Advantages

- Experience with coherent LiDAR, Silicon Photonics packaging, or PIC-level integration
- COMSOL Multiphysics; familiarity with Zemax OpticStudio
- Experience transitioning optical products from prototype to volume production

What We Offer

- Lead optomechanical engineering for a next-generation coherent LiDAR platform, with a path to building your team
- Competitive compensation with equity; small senior team; Jerusalem-based, engineering-first culture

How to Apply

Send the following to sari@lidwave.com:

1. Your CV
2. A short cover note on why this role fits you
3. Examples of previous work – Optomechanical assemblies, packaging designs, alignment stations, fixtures, or thermal architectures you led
4. Photos are welcomed (lab shots, CAD renderings, prototypes, hardware you shipped). PDF, slide deck, or links all work
5. Please indicate your individual contribution