



North America, Inc.

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| <b>JOB DESCRIPTION NUMBER:</b> SYS 002                     | <b>JOB TITLE:</b> SYSTEMS ENGINEER, OPTICAL |
| <b>REPORTS TO:</b> Vice President, Engineering             | <b>REVISION DATE:</b> 28-Oct-2022           |
| <b>LOCATION:</b> 16490 INNOVATION DRIVE, JUPITER, FL 33478 |   |
| <b>SHIFT:</b> THIS IS A FIRST SHIFT POSITION               |   |

**RESPONSIBILITIES INCLUDE (BUT ARE NOT LIMITED TO):**

- Optical design, modeling, and parametric monte carlo sensitivity/tolerance analyses in ZEMAX or Code V.
- System level oversight of product development including review and approval of opto-mechanical drawing packages for as-built tolerance stack-ups.
- Reduce customer specifications and technical governing documents into design and test requirements; track compliance and verification through design completion.
- Present design outputs to the customer (write optical design reports and design review presentations including Preliminary Design Reviews and Critical Design Reviews)
- Scientific programming for advanced analysis and characterization of optical systems, including customized performance simulations, in order to demonstrate compliance with detailed specifications.
- Write verification and validation protocols facilitating ISO 9001 and ISO 13495 design history compliance.
- Perform first article testing of complex lenses using MTF test equipment, interferometric testing, wavefront sensors, distortion testers, and other equipment.
- Develop instrument level compensation and optical performance tests.
- Write test plans and acceptance test procedures for complex optical assemblies and train systems testing group in optical performance tests.
- Support bid and proposal efforts and assist in the development of new business.
- Support production and manufacturing as needed.
- Performs all other duties as assigned

**REQUIREMENTS:**

- M.S. or above in Optical Engineering or Physics.
- 5-10 years experience developing optical systems, and/or imaging systems strongly preferred.
- Proficiency in optical design and tolerancing using ZEMAX, Code V, or other ray trace programs.
- Experience in illumination and scattered light analysis using ZEMAX and/or FRED is preferred.



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- Background in programming using Python, Matlab, Visual Basic, or similar scientific analysis packages.
- Excellent written and oral communication skills required.
- Must possess the following “soft skills”: Acts with Integrity, Attention to Detail, Clear Communicator, Goal Setting / Drives for Solutions, Prioritization/Multi-task, Problem Solver/Decision Maker, Self-Motivated, Team Player.
- Working knowledge of ISO 10110 and Military specifications as applied to optical surfaces and coatings
- Working knowledge of Geometric Dimensioning and Tolerancing (GD&T) preferred.
- Experience in fabrication and manufacturing of optical systems is preferred.
- Experience in project management and leading a small team of engineers/designers is a plus.
- In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification form upon hire.

**PHYSICAL REQUIREMENTS:**

The physical requirements described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally required to stand; walk; sit; use of hands or fingers to handle, or feel objects, tools or controls and keyboarding; reach with hands and arms; climb stairs; balance; stoop, kneel, crouch or crawl; talk and hear.

The employee must occasionally lift and/or move up to 50 pounds.