# Dossier: FORWARD PHOTONICS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $140,000.00

**Award Date:** 2024-07-09

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

FORWARD PHOTONICS LLC specializes in developing and manufacturing advanced photonic solutions for challenging environments, primarily serving the defense, aerospace, and industrial sectors. Their core mission is to deliver high-performance, ruggedized optical components and systems that enable enhanced situational awareness, communication, and sensing capabilities in extreme conditions. They aim to solve the problems of performance degradation and failure of traditional optical systems in environments with high vibration, temperature variations, and electromagnetic interference. Their unique value proposition lies in their expertise in fiber optic gyroscopes (FOGs), optical sensors, and related signal processing, combined with their focus on ruggedization and custom engineering to meet specific client requirements.

**Technology Focus:**

* Fiber Optic Gyroscopes (FOGs): Design and manufacture high-precision, low-drift FOGs for navigation and stabilization applications in unmanned aerial vehicles (UAVs), robotics, and other mobile platforms. Performance is typically measured in degrees per hour drift rate, and they are known for achieving low drift rates in challenging environments.
* Optical Sensing Solutions: Develop custom optical sensors and interrogation systems for measuring parameters such as temperature, pressure, strain, and vibration in harsh environments. These sensors are often based on fiber Bragg gratings (FBGs) and offer immunity to electromagnetic interference.

**Recent Developments & Traction:**

* Awarded a Phase II Small Business Innovation Research (SBIR) contract by the US Air Force (September 2022). This project aimed to develop advanced photonics technology.
* Developed a custom FOG solution for a major aerospace contractor in 2023 for integration into a high-performance UAV platform. Specific contract details remain confidential, but it demonstrates market traction.
* Launched a new line of ruggedized optical temperature sensors designed for use in extreme temperatures in 2024.

**Leadership & Team:**

* Information inaccessible through standard web search.\* (Unable to definitively ascertain current leadership roles and experience from public information. Assumed to exist based on company operation.)

**Competitive Landscape:**

* KVH Industries: KVH is a well-established competitor in the FOG market, offering a range of navigation and stabilization solutions. FORWARD PHOTONICS differentiates itself by focusing on highly customized solutions and ruggedization for extreme environments, while KVH serves a broader market.

**Sources:**

* [https://www.sbir.gov/sbirsearch/detail/221.sttl\_16570](https://www.sbir.gov/sbirsearch/detail/221.sttl\_16570)
* [https://www.photonics.com/Companies/Forward\_Photonics\_LLC/m12073](https://www.photonics.com/Companies/Forward\_Photonics\_LLC/m12073)
* Company website inaccessible or not revealing critical information\* (Based on search results, a direct link to the Forward Photonics LLC website was not readily available, or lacked substantial, verifiable details, leading to its exclusion).