# Dossier: FUNDAMENTAL TECHNOLOGIES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $150,000.00

**Award Date:** 2023-03-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Fundamental Technologies LLC (Fundamental Tech) is a technology development and manufacturing company primarily focused on advanced sensors, imaging, and electronics for defense, aerospace, and security applications. Their core mission appears to be developing and delivering innovative, high-performance solutions that enhance situational awareness, improve operational effectiveness, and address critical security challenges for their customers. Their unique value proposition lies in their ability to rapidly prototype and transition advanced technologies from laboratory concepts to fielded solutions, often emphasizing SWaP-C (Size, Weight, Power, and Cost) optimized designs for demanding environments. They seem to specialize in bridging the gap between basic research and deployable technology.

**Technology Focus:**

* Advanced Imaging Sensors:\*\* Developing and manufacturing high-sensitivity imaging sensors for low-light and challenging environmental conditions. This includes visible, infrared, and multi-spectral imaging solutions. Evidence suggests a specialization in photon counting detectors.
* Embedded Computing & Signal Processing:\*\* Creating ruggedized embedded computing platforms and signal processing algorithms for real-time data analysis and autonomous decision-making in sensor-driven systems. Capabilities appear to include custom circuit design and FPGA programming.

**Recent Developments & Traction:**

* DoD Contracts:\*\* Awarded multiple Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) contracts from the Department of Defense (DoD), including work related to enhanced vision systems and advanced signal processing algorithms. These contracts suggest strong ties to various branches of the US military.
* Technology Demonstrations:\*\* Participated in technology demonstrations and field trials showcasing their imaging and sensor capabilities to government and industry partners. Specifics regarding dates and partners not readily available.

**Leadership & Team:**

* Information on specific individuals is limited, but Fundamental Technologies LLC consistently emphasizes the expertise of their scientists and engineers with backgrounds in physics, optics, electronics, and software engineering. The team appears to include individuals with experience in prior DoD-funded research projects.

**Competitive Landscape:**

* Teledyne Technologies:\*\* Teledyne is a large, established player in the imaging and sensing market. Fundamental Tech differentiates itself through a focus on rapid prototyping, specialized solutions, and potentially lower costs, likely targeting niche applications where flexibility and customization are critical.
* L3Harris Technologies:\*\* L3Harris has a broad portfolio of defense and aerospace technologies. Fundamental Tech can differentiate itself by focusing on highly specialized sensor technology and embedded processing for extreme environments, likely coupled with their nimble SBIR funded growth.

**Sources:**

1. [https://www.fundamentaltechnologies.com/](https://www.fundamentaltechnologies.com/) (Company Website)

2. SAM.gov (Search for Fundamental Technologies LLC) - for contract award information. (Requires search on government website; no direct URL to single company summary)