# Dossier: TREX ENTERPRISES CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $179,514.77

**Award Date:** 2024-09-16

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

TREX Enterprises Corporation is a diversified technology company specializing in advanced sensing, imaging, and laser technologies primarily serving the defense, aerospace, and industrial markets. Their core mission is to develop and deploy innovative solutions that enhance situational awareness, improve operational effectiveness, and enable advancements in scientific research. TREX aims to solve critical challenges related to remote sensing, laser-based applications, and data exploitation in demanding environments. Their unique value proposition lies in their vertically integrated capabilities, from design and fabrication to system integration and field testing, enabling them to provide customized, high-performance solutions with rapid prototyping and deployment cycles. They often focus on ruggedized and specialized systems not readily available from large commercial suppliers.

**Technology Focus:**

* Laser Systems:\*\* TREX develops high-power, solid-state laser systems for applications such as directed energy, laser radar (LIDAR), and advanced manufacturing. These systems are often custom-designed for specific wavelength and power requirements, with capabilities including high beam quality and precise control.
* Optical and Infrared (IR) Sensing & Imaging:\*\* TREX builds custom electro-optical/infrared (EO/IR) sensor systems, including imagers, spectrometers, and hyperspectral sensors, for a wide range of applications, from missile defense to environmental monitoring. They specialize in advanced detector technologies and high-speed data processing.

**Recent Developments & Traction:**

* July 2021:\*\* Awarded a contract by the U.S. Army Combat Capabilities Development Command (CCDC) to develop and test advanced optical sensors for enhanced situational awareness on the battlefield (details lacking on funding amount).
* February 2022:\*\* Announced the development of a new compact laser system for industrial applications, focusing on precision materials processing, however, details regarding the technology specifics and partnerships were not provided.
* Ongoing:\*\* Continued participation in various SBIR/STTR programs across multiple government agencies (Defense, NASA), indicating continued R&D efforts and technology validation.

**Leadership & Team:**

* Wayne Machulis (President and CEO):\*\* Held senior management positions within TREX Enterprises Corporation for over 20 years, focused on strategic planning and business development.
* The executive team includes multiple PhD-level scientists and engineers with extensive experience in optics, lasers, and remote sensing. Specific names and titles are not prominently available.

**Competitive Landscape:**

* Lockheed Martin:\*\* While a much larger company, Lockheed Martin also develops advanced sensor systems and laser technologies for defense applications. TREX differentiates itself by focusing on niche markets and custom solutions with greater agility and responsiveness.
* Raytheon Technologies:\*\* Another major defense contractor with overlapping capabilities in sensing and laser systems. TREX distinguishes itself through its specialization in high-performance, ruggedized systems for demanding environments and its vertically integrated approach.

**Sources:**

1. [https://www.trexenterprises.com/](https://www.trexenterprises.com/)

2. [https://www.crunchbase.com/organization/trex-enterprises](https://www.crunchbase.com/organization/trex-enterprises)

3. [https://www.zoominfo.com/c/trex-enterprises-corporation/35306525](https://www.zoominfo.com/c/trex-enterprises-corporation/35306525)

4. [https://www.sam.gov/SAM/](https://www.sam.gov/SAM/) (For government contract information - searched using TREX Enterprises Corporation as a vendor)