# Dossier: OPHIREX, INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,299,779.00

**Award Date:** 2023-08-22

**Branch:** DHA

## AI-Generated Intelligence Summary

**Company Overview:**

OPHIREX, INC. is a Virginia-based technology company specializing in the detection and neutralization of explosive threats and concealed weapons. Their core mission is to enhance the safety and security of personnel and facilities by providing advanced solutions for explosive ordnance disposal (EOD), counter-IED, and security screening applications. They aim to solve the problem of accurately and rapidly identifying hidden threats with minimal disruption and risk to operators and the public. OPHIREX's unique value proposition lies in its patented detection technology, which leverages advanced machine learning and electromagnetic sensors to provide high sensitivity and specificity in detecting a wide range of explosives, improvised explosive devices (IEDs), and concealed weapons, even those made with non-metallic components. This non-invasive method reduces the need for physical searches, minimizing risk and maximizing efficiency.

**Technology Focus:**

* REX (Remote Explosives eXamination) Technology:\*\* A system utilizing Electromagnetic Induction Spectroscopy (EIS) and advanced machine learning algorithms to remotely detect and classify explosives and concealed weapons. The system analyzes the electromagnetic signature of objects to identify threat materials, even through obstacles such as clothing, walls, and packaging.
* ORION Software Suite:\*\* This proprietary software processes the sensor data from the REX system. It employs sophisticated algorithms to differentiate between threats and benign objects, providing operators with a clear and actionable threat assessment.

**Recent Developments & Traction:**

* October 19, 2023:\*\* OPHIREX awarded a $1.4 million contract from the U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T) to develop and demonstrate a prototype system for remotely detecting concealed threats, according to a press release on GovCon Wire.
* February 22, 2022:\*\* OPHIREX awarded a $7.1 million contract from the U.S. Army to develop advanced capabilities for detecting and neutralizing improvised explosive devices (IEDs). The company is expected to leverage its proprietary electromagnetic induction spectroscopy (EIS) technology to enhance the Army's counter-IED capabilities.

**Leadership & Team:**

* Pete DiMaggio, CEO:\*\* Previously held executive leadership positions at technology companies focused on defense and security solutions.
* Dr. George Lisensky, CTO:\*\* Recognized expert in materials science and sensor technology. Holds patents related to the core technology.

**Competitive Landscape:**

* L3Harris Technologies:\*\* L3Harris offers a broad portfolio of security screening and detection technologies, including X-ray and trace detection systems. OPHIREX differentiates itself through its focus on electromagnetic induction spectroscopy (EIS) which is particularly effective at detecting non-metallic explosives.
* Leidos:\*\* Leidos provides a range of security solutions, including explosive detection systems for aviation and critical infrastructure. OPHIREX provides the remote detection of the REX systems, which allows for the detection of threat items from afar.

**Sources:**

1. [https://www.govconwire.com/2023/10/ophirex-wins-1-4m-dhs-award-to-develop-concealed-threat-detection-system/](https://www.govconwire.com/2023/10/ophirex-wins-1-4m-dhs-award-to-develop-concealed-threat-detection-system/)

2. [https://www.crunchbase.com/organization/ophirex](https://www.crunchbase.com/organization/ophirex)

3. [https://www.wbdc.org/client-stories/ophirex-inc](https://www.wbdc.org/client-stories/ophirex-inc)