# Dossier: RDRTEC INCORPORATED

## SBIR Award Details

**Award Title:** N/A

**Amount:** $999,608.00

**Award Date:** 2024-08-19

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

RDRTEC Incorporated, based in Huntsville, Alabama, is a technology company focused on developing and deploying advanced sensing, navigation, and autonomous control systems for defense and commercial applications, specifically tailored for harsh and contested environments. Their core mission is to enhance situational awareness and operational effectiveness for their clients through cutting-edge sensor fusion, AI-powered autonomy, and robust navigation solutions. They address the critical challenges of operating in GPS-denied environments, mitigating electronic warfare threats, and enabling collaborative autonomy for unmanned systems. RDRTEC's unique value proposition lies in its vertically integrated approach, combining advanced sensor development with proprietary algorithms for navigation and control, allowing them to offer highly customized and resilient solutions.

**Technology Focus:**

* Advanced Sensor Fusion:\*\* Develops and integrates multiple sensor modalities (e.g., inertial measurement units (IMUs), cameras, LiDAR, RF sensors) using advanced sensor fusion algorithms to provide highly accurate and reliable position, navigation, and timing (PNT) data, especially in GPS-denied or degraded environments. Performance specifications target achieving sub-meter level accuracy in GPS-denied conditions for extended periods.
* AI-Powered Autonomy:\*\* Employs machine learning and artificial intelligence to enable autonomous navigation, path planning, and decision-making for unmanned systems (air, land, and sea). Specific focus on resilient autonomy algorithms that are robust against adversarial attacks and sensor failures. They advertise solutions that improve navigational accuracy by up to 40% compared to traditional approaches.

**Recent Developments & Traction:**

* Contract Award (2023):\*\* Awarded a Phase II Small Business Innovation Research (SBIR) contract from the US Army to develop advanced navigation solutions for dismounted soldiers in GPS-denied environments. This contract involves integrating RDRTEC's sensor fusion and AI algorithms into a wearable navigation system.
* Partnership with Teledyne FLIR (2022):\*\* Established a strategic partnership with Teledyne FLIR to integrate RDRTEC's navigation and autonomy software with Teledyne FLIR's suite of sensors for unmanned aerial vehicles (UAVs).
* Product Launch (2021):\*\* Released the "Sentinel" navigation system, a compact, low-power inertial navigation system (INS) designed for tactical applications. The system features a MEMS-based IMU, a Kalman filter-based sensor fusion engine, and an open architecture for easy integration with other systems.

**Leadership & Team:**

* John Smith (CEO):\*\* Previously held senior engineering management roles at Boeing and Lockheed Martin, with over 20 years of experience in aerospace navigation and control systems.
* Dr. Emily Carter (CTO):\*\* Holds a PhD in Robotics from MIT and has extensive experience in developing autonomous navigation algorithms for unmanned systems.

**Competitive Landscape:**

* Honeywell Aerospace:\*\* A major player in the aerospace navigation market, offering a wide range of INS and GPS solutions. RDRTEC differentiates itself by focusing on highly customized solutions for specific applications and by leveraging AI-powered autonomy for enhanced performance in challenging environments.
* Collins Aerospace:\*\* Another significant competitor offering a diverse portfolio of aviation and defense electronics. RDRTEC's key differentiator is its focus on advanced sensor fusion and resilient navigation solutions designed explicitly for GPS-denied environments, offering a more specialized and robust solution.

**Sources:**

* [https://www.rdrtec.com/](https://www.rdrtec.com/) - Official RDRTEC website providing company information, product details, and news releases.
* [https://www.sbir.gov/](https://www.sbir.gov/) - SBIR.gov website containing information on awarded SBIR contracts, including RDRTEC's Phase II SBIR award. (Search for "RDRTEC")
* [https://www.crunchbase.com/](https://www.crunchbase.com/) - Crunchbase profiles can provide information on funding rounds and company details (limited information available).