# Dossier: CREARE LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $146,470.00

**Award Date:** 2024-09-26

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Creare LLC is an engineering research and development company focused on creating innovative solutions for complex engineering challenges across a diverse range of industries, including aerospace, defense, energy, and biomedical. Their core mission is to advance the state-of-the-art through fundamental research, applied engineering, and product development, often focusing on problems requiring high-performance systems in harsh environments. They specialize in transitioning technologies from the lab to deployable systems. Creare’s unique value proposition lies in its ability to combine deep theoretical understanding with practical engineering skills to develop custom solutions for highly specialized needs, often collaborating with government agencies and prime contractors. They differentiate themselves by offering a full spectrum of capabilities from initial concept to prototype fabrication and testing.

**Technology Focus:**

* Cryogenic and Thermal Management Systems:\*\* Design and development of advanced cryogenic systems for aerospace applications, including cryocoolers, cryogenic pumps, and heat exchangers, with applications in space-based sensors, superconducting electronics, and propellant management. Specific performance metrics mentioned online include demonstrated cooling power at low temperatures (e.g., cooling capacity at 4K).
* Advanced Fluid Dynamics and Heat Transfer Solutions:\*\* Developing advanced simulations, models, and experimental validation techniques for fluid dynamics and heat transfer, with applications in high-speed aerodynamics, turbomachinery, and microfluidic devices. This includes computational fluid dynamics (CFD) and finite element analysis (FEA) capabilities.
* Sensors and Instrumentation:\*\* Development of custom sensors and instrumentation for harsh environments, including high-temperature, high-pressure, and corrosive conditions. This includes micro-sensors, fiber optic sensors, and wireless sensor networks tailored for specific applications.

**Recent Developments & Traction:**

* U.S. Air Force SBIR Awards (multiple):\*\* Creare has consistently secured Small Business Innovation Research (SBIR) awards from the U.S. Air Force and other government agencies in recent years. These awards cover a range of topics including advanced cooling technologies and sensor development, demonstrating ongoing engagement and validation of their technology by the DoD. Specific award details (dates, amounts) are readily available via public databases.
* Partnerships with Prime Defense Contractors:\*\* Evidence suggests continued collaboration with major defense contractors on various research and development programs, though details are typically confidential. However, press releases and online mentions confirm Creare’s role as a subcontractor in projects related to aerospace and defense technologies.
* Ongoing Research into Quantum Computing Cryogenics:\*\* Published material hints at ongoing internal research and development into cryogenic solutions for enabling quantum computing, indicating a forward-looking strategic focus on emerging technologies.

**Leadership & Team:**

* Information about Creare's leadership team is limited publicly. While specific names are challenging to obtain without deeper database access, their website emphasizes the expertise of their technical staff, many holding advanced degrees in engineering and physics. They highlight expertise in areas such as cryogenics, fluid dynamics, and advanced materials. Further research is needed to identify key leaders and their specific backgrounds.

**Competitive Landscape:**

* Chart Industries:\*\* Competes in the cryogenic equipment and solutions market. Creare differentiates itself by focusing on highly specialized, custom solutions and applied research, while Chart offers more standardized products and services at a larger scale.
* Luna Innovations:\*\* Competes in the sensing and instrumentation market, particularly fiber optic sensing. Creare focuses more on custom sensor development for extreme environments, offering greater flexibility and tailored solutions.

**Sources:**

* [https://www.creare.com/](https://www.creare.com/)
* [https://www.sbir.gov/](https://www.sbir.gov/) (Search for 'Creare' to view SBIR awards)
* [https://www.defense.gov/](https://www.defense.gov/) (Search for press releases mentioning Creare)