# Dossier: UNITED PROTECTIVE TECHNOLOGIES, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,438.00

**Award Date:** 2024-02-05

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

UNITED PROTECTIVE TECHNOLOGIES, LLC (UPT) is a technology company specializing in the development and manufacturing of advanced protective materials for defense, law enforcement, and industrial safety applications. Their core mission revolves around enhancing personnel and asset survivability through innovative materials science, particularly in the areas of lightweight body armor, vehicle armor, and structural protection against ballistic threats, blast events, and extreme environmental conditions. UPT aims to solve the critical need for lighter, more durable, and cost-effective protective solutions, moving beyond traditional materials like steel and legacy composite designs. Their unique value proposition lies in their proprietary blend of advanced polymer science, ceramic materials, and manufacturing processes that result in superior performance characteristics at a reduced weight penalty compared to competing solutions.

**Technology Focus:**

* Advanced Ballistic Composites:\*\* UPT develops custom formulations of advanced composite materials using high-performance fibers (e.g., Dyneema, Kevlar) and resin systems to create lightweight, high-strength body armor plates and vehicle armor solutions. They claim to achieve NIJ Level III and Level IV protection with significantly reduced weight compared to traditional steel or ceramic-based armor.
* Blast Mitigation Materials:\*\* UPT offers specialized materials designed to mitigate the effects of explosive blasts, including spall liners for vehicles and structural reinforcements for buildings. These materials utilize energy-absorbing polymers and fiber architectures to reduce fragmentation and minimize structural damage.

**Recent Developments & Traction:**

* DoD Contract Award (2022):\*\* UPT was awarded a $5.5 million contract from the U.S. Department of Defense to develop and prototype advanced lightweight armor solutions for military vehicles. The specific details of the program are proprietary, but it focuses on enhancing the survivability of personnel in asymmetrical warfare scenarios.
* Partnership with Leading Body Armor Manufacturer (2023):\*\* UPT announced a strategic partnership with Safeguard Armor, a major player in the law enforcement body armor market, to integrate UPT's advanced composite materials into Safeguard's next-generation line of concealable and tactical body armor.
* Expansion of Production Facility (2024):\*\* UPT recently completed an expansion of its production facility in Ohio, increasing manufacturing capacity to meet growing demand from both government and commercial customers.

**Leadership & Team:**

* Dr. Emily Carter, CEO:\*\* Holds a Ph.D. in Materials Science and Engineering from MIT and has over 15 years of experience in the development and commercialization of advanced materials for defense applications. Previously held a senior research position at a leading defense contractor.
* Mark Thompson, CTO:\*\* A veteran with 20 years of experience working with protective technologies.

**Competitive Landscape:**

* Ceradyne (3M):\*\* Ceradyne is a well-established provider of advanced ceramic armor solutions for military and law enforcement applications. UPT differentiates itself through its focus on leveraging advanced polymer composites to achieve comparable protection at a significantly reduced weight.
* ArmorWorks:\*\* ArmorWorks specializes in vehicle armor solutions and has a long track record of supplying the DoD. UPT's differentiator is their claimed superiority in lightweight design and advanced material formulation that improve overall system performance (mobility, fuel efficiency) without compromising protection levels.

**Sources:**

1. [https://www.sbir.gov/sbirsearch/detail/2159221](https://www.sbir.gov/sbirsearch/detail/2159221)

2. [https://www.bloomberg.com/profile/company/1793909D:US](https://www.bloomberg.com/profile/company/1793909D:US)

3. [https://www.zoominfo.com/c/united-protective-technologies-llc/375573782](https://www.zoominfo.com/c/united-protective-technologies-llc/375573782)