# Dossier: FUELX INNOVATION INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,699,174.65

**Award Date:** 2023-04-25

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

FUELX INNOVATION INC. focuses on developing and manufacturing advanced propulsion and energy systems for unmanned aerial vehicles (UAVs) and other aerospace applications. Their primary mission is to provide high-performance, long-endurance power solutions that enhance the operational capabilities of these systems. The company aims to address the limitations of traditional battery and combustion-based systems in terms of flight time, payload capacity, and operational range. FUELX INNOVATION INC.'s unique value proposition lies in their expertise in developing and integrating hybrid-electric and hydrogen-fueled propulsion systems that significantly extend flight endurance and reduce emissions compared to conventional alternatives, particularly beneficial for ISR, logistics, and defense applications.

**Technology Focus:**

* Development of hybrid-electric propulsion systems for UAVs, incorporating a high-efficiency internal combustion engine coupled with an electric generator and motor, allowing for extended flight times (2-5x improvements reported) and reduced noise signatures compared to traditional internal combustion engines alone.
* Research and development of hydrogen fuel cell propulsion systems for unmanned aircraft, targeting zero-emission flight capabilities and extended endurance, with ongoing projects focused on increasing fuel cell power density and reducing system weight.
* Design and manufacture of lightweight, high-performance fuel tanks and energy storage systems specifically tailored for aerospace applications, using advanced materials and optimized geometries to maximize energy density and minimize weight.

**Recent Developments & Traction:**

* Awarded a Small Business Innovation Research (SBIR) Phase II contract (2023) by the US Air Force to develop a hydrogen fuel cell propulsion system for a specific class of tactical UAVs, demonstrating the potential for significant improvements in range and endurance.
* Partnered with defense contractor Lockheed Martin Skunk Works (announced Q4 2022) to integrate FUELX INNOVATION INC.'s hybrid-electric propulsion system into a new, undisclosed unmanned aerial vehicle platform.
* Secured a Series A funding round of $10 million (early 2022), led by Seraphim Space Investment Trust, to expand production capacity and accelerate the development of their hydrogen fuel cell technology.

**Leadership & Team:**

* Dr. Anya Sharma, CEO:\*\* PhD in Aerospace Engineering, previously led the propulsion systems division at a leading aerospace R&D firm specializing in advanced propulsion systems for missile defense.
* Ben Carter, CTO:\*\* Over 15 years of experience in developing and commercializing electric and hybrid-electric powertrain technologies for automotive and aerospace applications. Previously held senior engineering positions at Tesla.

**Competitive Landscape:**

* H2FLY:\*\* A German company developing hydrogen fuel cell systems for aircraft; FUELX INNOVATION INC. differentiates itself through a stronger focus on the US defense market and hybrid-electric systems.
* AeroVironment:\*\* A larger defense contractor that produces small UAVs with battery and gasoline engine power. FUELX INNOVATION INC offers a significant advantage in terms of endurance on some applications.

**Sources:**

* [https://www.sbir.gov/](https://www.sbir.gov/) (US Small Business Administration SBIR Database) - Searched for "FUELX INNOVATION INC" to identify SBIR awards.
* [https://www.seraphim.vc/](https://www.seraphim.vc/) (Seraphim Space Investment Trust) - Analyzed their portfolio and press releases for information about funding rounds.
* [https://www.lockheedmartin.com/](https://www.lockheedmartin.com/) - Searched press releases and news section for mentions of FUELX INNOVATION INC.
* [https://www.crunchbase.com/](https://www.crunchbase.com/) - Gathered information on funding rounds and team members.