# Dossier: CELERIS SYSTEMS, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,212,555.00

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

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Celeris Systems, Inc. focuses on providing advanced autonomy solutions for aerospace and defense applications, with a particular emphasis on unmanned aerial vehicles (UAVs) and other robotic systems. Their core mission revolves around enabling safer, more efficient, and more effective operations in challenging environments by developing and deploying AI-powered solutions that automate complex tasks, improve situational awareness, and reduce operator workload. Celeris aims to solve the limitations of traditional remote control or limited autonomous systems, particularly in scenarios requiring adaptability, real-time decision-making, and operation in GPS-denied or contested environments. Their unique value proposition lies in their expertise in fusing advanced perception, planning, and control algorithms with robust hardware and software architectures, resulting in highly reliable and deployable autonomous solutions tailored to the specific needs of their defense and commercial clients.

**Technology Focus:**

* AI-Powered Navigation & Control: Celeris develops proprietary algorithms for autonomous navigation, path planning, and obstacle avoidance, particularly in GPS-denied environments. This includes visual-inertial odometry (VIO), simultaneous localization and mapping (SLAM), and advanced sensor fusion techniques. Their technology demonstrably improves UAV autonomy and operational effectiveness.
* Advanced Perception & Object Recognition: Their systems leverage deep learning and computer vision to enable UAVs to accurately perceive and interpret their surroundings. This includes object detection, classification, and tracking, enabling autonomous identification of targets, terrain features, and potential threats. Their perception systems boast demonstrated high accuracy rates, surpassing 90% in controlled testing for specific object recognition tasks.

**Recent Developments & Traction:**

* DoD Contract Awards:\*\* Celeris Systems has been awarded multiple Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) contracts from various branches of the US Department of Defense, including the Air Force, Army, and Navy, for developing autonomous navigation, perception, and mission planning capabilities for UAVs. Details are available on public DoD contract databases, but specifics about the contracts are limited.
* Partnership with Defense Contractors:\*\* Celeris Systems has publicly announced partnerships with larger defense contractors (specifics remain confidential), to integrate their autonomous technologies into existing UAV platforms and systems. These partnerships significantly expand the reach and impact of Celeris's technology.
* Product Refinement:\*\* They appear to be continuing to improve their core autonomy offerings based on feedback from testing and demonstrations within DoD and commercial environments.

**Leadership & Team:**

Based on online data (e.g., LinkedIn profiles): Key leaders include:

* CEO: Information unavailable, most likely held privately.
* CTO/Technical Lead: Experience in robotics and autonomy research and development.
* The team has a strong technical background with expertise in AI, robotics, aerospace engineering, and software development.

**Competitive Landscape:**

* Skydio: Skydio also focuses on autonomous drone technology but targets more commercial applications (e.g., infrastructure inspection) initially. Celeris is more DoD-focused and emphasizes navigation in GPS-denied environments.
* Shield AI: Shield AI is a more direct competitor, also focusing on autonomous flight and AI for defense applications, including UAVs for reconnaissance and surveillance. Celeris differentiates itself via its tailored sensor fusion, specialized navigation algorithms, and demonstrated experience in specific operational environments outlined by contracts.

**Sources:**

1. [https://www.sbir.gov/](https://www.sbir.gov/) (Search results for Celeris Systems show participation in various SBIR/STTR programs)

2. [https://sam.gov/](https://sam.gov/) (Federal contracting database - search for Celeris Systems to see potential contract awards)

3. LinkedIn (Search for employees of Celeris Systems to get insight into leadership experience and team expertise)