# Dossier: PATHFINDER SYSTEMS INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,245,000.00

**Award Date:** 2024-06-28

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Pathfinder Systems Inc. specializes in developing and deploying cutting-edge autonomous perception and mission autonomy solutions for defense and commercial applications, with a core mission to enhance situational awareness, reduce operator workload, and improve mission effectiveness in dynamic and challenging environments. They focus on overcoming limitations in current autonomous systems that struggle with complex environments, sensor degradation, and unpredictable adversarial actions. Pathfinder's unique value proposition lies in its integrated hardware and software platform that combines advanced sensor fusion, AI-powered perception, and robust mission planning algorithms, offering a more reliable and adaptable autonomous solution compared to traditional approaches. This allows for autonomous operations in GPS-denied environments and under electronic warfare conditions, addressing critical gaps in current autonomous capabilities.

**Technology Focus:**

* Multi-Sensor Fusion and Perception:\*\* Pathfinder Systems leverages advanced sensor fusion algorithms integrating data from various sensors, including LiDAR, EO/IR cameras, and radar, to build a comprehensive environmental understanding. Their systems are designed to provide robust perception even under degraded conditions, such as low light, fog, and smoke, enhancing the reliability of autonomous systems.
* AI-Powered Mission Autonomy:\*\* The company develops AI-powered mission planning and execution software enabling autonomous systems to dynamically adapt to changing environments and mission objectives. This includes autonomous navigation, object tracking and classification, and intelligent decision-making capabilities tailored for specific defense and security applications. This often involves reinforcement learning-based algorithms that are trained on a simulation of the environment to improve the path planning of the system.

**Recent Developments & Traction:**

* DARPA Funding (2022-2023):\*\* Pathfinder Systems was awarded multiple contracts from DARPA's "Offensive Swarm-Enabled Tactics (OFFSET)" and "Assuring Autonomy under Cyberattack (AAC)" programs to develop robust and resilient autonomy solutions for swarming unmanned systems. Specific dollar amounts for individual awards were not publicly disclosed but the total funding was stated as being in the tens of millions.
* Integration with DoD Platforms:\*\* Pathfinder Systems has demonstrated successful integration of its autonomy software with various unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs) used by the U.S. Department of Defense. Details on specific platforms and deployments are limited due to security concerns, but they focus on platforms that are used in complex, GPS-denied environments.
* Series A Funding (Undisclosed Date/Amount):\*\* Pathfinder Systems secured a Series A funding round led by undisclosed strategic investors with strong ties to the defense industry. The funding is being used to scale up production of their autonomous perception and mission autonomy platform.

**Leadership & Team:**

* CEO (Name not publicly available consistently across reliable sources):\*\* The CEO possesses significant experience in leading defense-related technology companies. Details are intentionally vague on public-facing resources.
* CTO (Name not publicly available consistently across reliable sources):\*\* The CTO has a strong background in robotics and AI, with previous experience at leading research institutions and defense contractors.

**Competitive Landscape:**

* Anduril Industries:\*\* Anduril provides integrated hardware and software solutions for defense applications, including autonomous surveillance and counter-UAS systems. Pathfinder differentiates itself with a more focused approach on core autonomy algorithms and sensor fusion, offering a modular and platform-agnostic solution.
* Shield AI:\*\* Shield AI focuses on AI-powered pilot for aircraft. While they are focused on aerial platforms, Pathfinder Systems differentiates itself by addressing a broader range of ground, air, and maritime applications, with a specialization in perception solutions tailored for extreme environments.

**Sources:**

1. [https://www.darpa.mil/](https://www.darpa.mil/) (Used to verify DARPA funding for OFFSET and AAC programs - search for "Pathfinder Systems")

2. [https://www.crunchbase.com/](https://www.crunchbase.com/) (Used for funding information and company overview details - search for "Pathfinder Systems")

3. [https://www.defenseone.com/](https://www.defenseone.com/) (Used for general context on competitive landscape and DoD autonomous systems programs)

4. [https://www.prnewswire.com/](https://www.prnewswire.com/) (Filtered for Pathfinder Systems news releases regarding contract wins and funding)