# Dossier: Phasespace Inc

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,899,403.80

**Award Date:** 2024-04-10

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Phasespace Inc. is a motion capture technology company specializing in ultra-precise, real-time optical tracking solutions for various applications, including virtual reality, augmented reality, robotics, biomechanics, and human performance analysis, with a strong emphasis on defense and aerospace applications. Their core mission is to provide the highest accuracy, lowest latency, and most robust motion capture data, even in challenging environments. They aim to solve the limitations of traditional motion capture systems that struggle with occlusion, latency, and environmental interference, thereby enabling more realistic and responsive simulations and training exercises for critical industries. Their unique value proposition lies in their active LED marker technology, which delivers superior accuracy and reliability compared to passive marker systems, combined with scalable architecture and customized integration capabilities.

**Technology Focus:**

* Phasespace utilizes active LED marker-based optical motion capture technology. Their systems employ high-speed cameras (ranging from 120 FPS to over 480 FPS) to track the precisely pulsed light emitted from these active markers, enabling high-precision tracking in real-time. Accuracy can reach sub-millimeter levels with minimal latency (typically less than 5 milliseconds).
* Their proprietary software and hardware integrate seamlessly to provide a robust and customizable platform. They offer advanced calibration algorithms, real-time data processing, and various data output formats (e.g., FBX, BVH, CSV) compatible with leading simulation and development environments (e.g., Unity, Unreal Engine).

**Recent Developments & Traction:**

* In 2021, Phasespace announced enhancements to their Impetus series of motion capture systems, focusing on improved robustness and environmental adaptability for outdoor and large-volume tracking applications, targeting DoD training scenarios. Specific improvements centered around filtering ambient light interference and streamlining calibration procedures in expansive capture volumes.
* Partnerships with various defense contractors have been publicly disclosed through press releases and industry publications. These partnerships involved utilizing Phasespace's motion capture technology for advanced soldier training simulations and virtual prototyping of defense systems. Examples include integration into dismounted soldier simulations and drone flight training applications.
* While specific funding round information is not publicly available, press releases from the last 2-3 years emphasize increased investment in research and development to refine their optical motion capture solutions for defense and aerospace applications, hinting at likely strategic investments or internal funding reallocation.

**Leadership & Team:**

* Company Structure:\*\* Publicly available information does not list specific individuals and their titles such as CEO, CTO, or President. Phasespace is generally presented as a project-based organization, not a hierarchy. However, the names of principle investigators and project leads are listed in their publications.

**Competitive Landscape:**

* Vicon Motion Systems:\*\* Vicon is a major player in motion capture, offering both active and passive marker systems. Phasespace differentiates itself through its exclusive focus on active marker technology, prioritizing accuracy and robustness over cost-effectiveness for applications where precision is paramount, and their customization capabilities.
* OptiTrack:\*\* OptiTrack provides predominantly passive marker motion capture systems. While more cost-effective, passive systems are more susceptible to occlusion and environmental interference, making Phasespace's active LED approach a more reliable solution for demanding applications within the defense and aerospace sectors.

**Sources:**

1. [https://phasespace.com/](https://phasespace.com/) - Official Phasespace website (company information and product details).

2. [https://www.youtube.com/@Phasespace](https://www.youtube.com/@Phasespace) - official phasespace youtube channel