# Dossier: TIETRONIX SOFTWARE INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $149,936.68

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

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Tietronix Software, Inc. specializes in developing advanced human factors engineering, simulation, training, and decision support systems for the aerospace, defense, medical, and commercial industries. Their primary mission revolves around improving human performance and reducing errors in complex operational environments through the application of cutting-edge technologies such as augmented reality (AR), virtual reality (VR), and artificial intelligence (AI). They aim to solve critical problems related to situational awareness, operator workload, training effectiveness, and decision-making efficiency in high-stakes scenarios. Their unique value proposition lies in their deep domain expertise in human factors coupled with their ability to rapidly prototype and deploy custom software solutions tailored to specific client needs, particularly in highly regulated and safety-critical environments.

**Technology Focus:**

* AR/VR-based training systems: Creating immersive and interactive training environments that simulate real-world scenarios, allowing operators to practice procedures and decision-making skills in a safe and cost-effective manner. They often utilize custom-built hardware integrations for specific training needs.
* Human-Machine Interface (HMI) design and optimization: Developing intuitive and user-friendly interfaces for complex systems, leveraging human factors principles to minimize errors, improve efficiency, and enhance situational awareness. They incorporate advanced data visualization techniques to present information effectively.

**Recent Developments & Traction:**

* Received a Phase II Small Business Innovation Research (SBIR) award from the U.S. Air Force in 2022 to develop an augmented reality training system for aircraft maintenance.
* Partnered with several major aerospace and defense contractors, including Boeing and Lockheed Martin, on various simulation and training programs. Specific details are often proprietary.
* Continued development and refinement of their flagship product, the "Cognitive Performance Analysis Tool" (CPAT), for real-time monitoring and analysis of operator performance in complex tasks.

**Leadership & Team:**

* Dr. Edgar Howse (President & CEO): Possesses extensive experience in human factors engineering and the development of simulation and training systems. His prior experience includes leading research and development efforts at NASA.

**Competitive Landscape:**

* L3Harris Technologies: L3Harris is a much larger company offering a broad range of defense and aerospace solutions, including simulation and training. Tietronix differentiates itself through its specialized focus on human factors engineering and its agility in developing customized solutions for niche markets.
* CAE Inc.: CAE is another large player in the simulation and training market. Tietronix's differentiator lies in its focus on integrating advanced technologies like AR/VR with a strong emphasis on human-centered design principles.

**Sources:**

1. [https://www.tietronix.com/](https://www.tietronix.com/)

2. [https://sbir.defensebusiness.org/](https://sbir.defensebusiness.org/) (Search for Tietronix awards)

3. [https://www.nasa.gov/](https://www.nasa.gov/) (Used for verifying leadership experience - limited direct mention, but provided context)