# Dossier: PISON TECHNOLOGY INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,000,000.00

**Award Date:** 2024-06-21

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

PISON Technology, Inc. focuses on developing brain-computer interface (BCI) technology for command and control applications, primarily within the defense and aerospace sectors, but also expanding into industrial automation. Their core mission is to translate thought into action in demanding environments, enabling users to operate complex systems, such as robots or drones, with enhanced speed, precision, and safety. They aim to solve the limitations of traditional human-machine interfaces in situations where hands are occupied, reaction time is critical, or environmental constraints are severe. PISON's unique value proposition lies in its non-invasive, wearable BCI technology that emphasizes practical application and robustness in real-world operational contexts, differentiating itself from purely research-oriented BCI initiatives.

**Technology Focus:**

* Maven:\*\* A non-invasive, wearable BCI system designed for hands-free control of robots, drones, and other systems. It measures neuromuscular activity using electromyography (EMG) and interprets intended user actions via advanced machine learning algorithms. Maven is designed for use in harsh environments and does not require implanted sensors.
* AI/ML Platform:\*\* PISON leverages proprietary machine learning algorithms for signal processing and intent decoding, enabling personalized and adaptive control interfaces. Their AI platform continuously learns and refines the user's unique neural signature to improve accuracy and responsiveness.

**Recent Developments & Traction:**

* DARPA Awards:\*\* PISON has secured multiple contracts from the Defense Advanced Research Projects Agency (DARPA) to advance BCI technology. Most recently awarded a 22.5M follow on contract to the previous contract of similar amount for development of the MAVEN system in October 2022.
* Collaboration with Industry Partners:\*\* PISON partners with robotics and defense companies to integrate its BCI technology into existing systems. Specific partners have been publicly announced, but the general direction of partnership remains with the military and industrial robotics space.
* Expansion into Industrial Automation:\*\* PISON is expanding its BCI technology into industrial automation applications, seeking to enable hands-free control of manufacturing equipment and improve worker safety.

**Leadership & Team:**

* Dexter Ang:\*\* Founder and CEO. Previous experience includes work in the bioengineering field with focus on robotics and machine learning, specifically on decoding intent from neuromuscular activity.
* The rest of the team\*\* information is only available as descriptions in interviews and not in LinkedIn or company websites.

**Competitive Landscape:**

* Neuralink:\*\* Although more focused on invasive BCI technology for medical applications, Neuralink is a competitor in the broader BCI space, pushing the boundaries of what is possible with neural interfaces, which can be disruptive to the non-invasive domain.
* CTRL-Labs (acquired by Facebook/Meta):\*\* CTRL-Labs developed a wristband-based EMG system for controlling digital devices. PISON differentiates itself through its specific focus on ruggedized, high-reliability solutions for defense and industrial environments, where accuracy and robustness are paramount.

**Sources:**

* [https://www.pison.com/](https://www.pison.com/)
* [https://www.darpa.mil/](https://www.darpa.mil/) (Search PISON for relevant awards)
* [https://techcrunch.com/2022/10/12/pison-darpa-contract/](https://techcrunch.com/2022/10/12/pison-darpa-contract/)
* [https://www.youtube.com/watch?v=xG45b6J6Q5Q](https://www.youtube.com/watch?v=xG45b6J6Q5Q) (Dexter Ang interviews with technology outlets)