# Dossier: ActivArmor LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,235,490.00

**Award Date:** 2024-07-30

**Branch:** DHA

## AI-Generated Intelligence Summary

**Company Overview:**

ActivArmor LLC is a medical device company that designs and manufactures custom-fit, breathable, and waterproof casts and splints using 3D scanning and printing technology. Their core mission is to revolutionize fracture care by providing patients with a more hygienic, comfortable, and adaptable alternative to traditional plaster or fiberglass casts. The company aims to solve problems associated with traditional casts, such as skin irritation, odor, limited mobility, and difficulty with hygiene. ActivArmor offers a unique value proposition by providing custom-fit immobilization devices that can be adjusted or modified to accommodate swelling, wounds, or range-of-motion exercises, all while allowing patients to maintain an active lifestyle.

**Technology Focus:**

* 3D Scanning and Design:\*\* ActivArmor utilizes proprietary 3D scanning technology to capture the precise contours of a patient's injured limb. This scan is then used to create a customized cast design, incorporating ventilation holes for breathability and adjustability features.
* 3D Printing Manufacturing:\*\* The custom cast designs are manufactured using 3D printing with biocompatible thermoplastic materials. The company uses a patented design consisting of open lattice-work, allowing for full breathability.

**Recent Developments & Traction:**

* Partnership with Advanced Technology International (ATI) and U.S. Army Medical Research and Development Command (USAMRDC):\*\* In October 2022, ActivArmor was awarded a contract with ATI, working with the USAMRDC, to provide custom 3D-printed immobilizations for military use. This collaboration aims to improve the treatment of extremity injuries sustained by soldiers.
* Strategic Investment:\*\* In January 2022, ActivArmor closed a strategic investment round led by Medical Device Innovation Consortium (MDIC). The amount was not disclosed. This funding is intended to accelerate commercialization and expand production capabilities.
* Expanded Product Line:\*\* Over the past 2 years, ActivArmor has expanded its product line to include specialized casts and splints for specific injuries and patient populations, including pediatric and geriatric patients.

**Leadership & Team:**

* Diana Hall, CEO:\*\* Prior to founding ActivArmor, Diana Hall has experience in business strategy and development.

**Competitive Landscape:**

* Cast21:\*\* Cast21 offers a water-permeable cast made of a liquid resin that hardens into a lattice structure. ActivArmor differentiates itself by offering truly custom-fit solutions based on 3D scanning, allowing for adjustments and modifications during the healing process, and offering breathability.
* Exo Cast (Ottobock):\*\* Exo Cast is another 3D-printed cast provider. ActivArmor differentiates itself through customization, ventilation, adjustability and their strong focus on patient activity during the healing process, as well as a focus on specialized molds for unique injury types.

**Sources:**

* [https://activarmor.com/](https://activarmor.com/)
* [https://www.army.mil/article/260985/army\_researchers\_team\_with\_industry\_to\_bring\_3d\_printed\_casts\_to\_military\_medicine](https://www.army.mil/article/260985/army\_researchers\_team\_with\_industry\_to\_bring\_3d\_printed\_casts\_to\_military\_medicine)
* [https://www.mdic.org/](https://www.mdic.org/)