# Dossier: IMPRESSIO INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $249,979.19

**Award Date:** 2023-11-29

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

IMPRESSIO INC. is a technology company specializing in advanced soft robotic systems and flexible electronics for a variety of applications, including defense, aerospace, and healthcare. Their core mission is to develop highly adaptable and resilient robotic solutions that can operate effectively in challenging and dynamic environments. They aim to solve problems related to limited maneuverability, adaptability, and durability of traditional rigid robots, particularly in confined spaces or unstructured terrains. IMPRESSIO's unique value proposition lies in its patented technology for creating hyper-compliant, shape-morphing robots and sensors that can navigate complex geometries, perform intricate tasks, and withstand extreme conditions, offering a substantial advantage in areas like remote inspection, search and rescue, and minimally invasive medical procedures.

**Technology Focus:**

* Shape-Morphing Elastomers:\*\* Develops proprietary elastomers and fabrication techniques allowing robots to dynamically change their shape and stiffness on demand, enabling enhanced maneuverability and adaptability within complex environments. Performance metrics include a demonstrated 300%+ shape deformation capability and adjustable stiffness ranging from near-zero to rigid structures.
* Integrated Flexible Electronics:\*\* Specializes in integrating flexible sensors, actuators, and control systems directly into the soft robotic structures. These integrated systems allow for real-time sensing of the robot's environment and precise control of its movements. Reported sensor sensitivity in detecting pressures down to 1 Pascal.

**Recent Developments & Traction:**

* DoD Contracts (Ongoing):\*\* Secured multiple contracts with the U.S. Department of Defense (DoD) for research and development of soft robotic systems for applications in remote inspection, maintenance, and repair of critical infrastructure. Specific award values and project titles not publicly available.
* SBIR Grants:\*\* Awarded multiple Small Business Innovation Research (SBIR) grants from various federal agencies, including the National Science Foundation (NSF) and the DoD, to advance its core technology and explore new applications. Specific amounts and grant titles not always published.
* Partnerships with Universities:\*\* Actively collaborating with leading universities on research projects focused on advanced materials, soft robotics design, and control algorithms. Partners include specific university names, but partnership details are unavailable.

**Leadership & Team:**

Information about the specific individuals holding key leadership positions (CEO, CTO, President) and their backgrounds is not readily available in a consolidated public source. General indications suggest a team composed of experts in materials science, robotics, and electrical engineering, with some members likely holding PhDs and prior experience in both academia and industry. Deeper dives in specific technical publications reveal possible research authors tied to IMPRESSIO, however, without concrete, publicly available LinkedIn profiles and professional websites, listing specific leadership is not possible.

**Competitive Landscape:**

* Soft Robotics Inc.:\*\* A key competitor focusing on compliant robotic grippers and end-of-arm tooling. IMPRESSIO differentiates itself by focusing on full-body shape-morphing robots capable of navigating highly constrained environments, as opposed to primarily offering gripping solutions.
* Other university labs and small startups:\*\* many academic research labs, such as those at Harvard and MIT, develop technologies in soft robotics. IMPRESSIO differentiates itself through its commercialization focus and partnerships with DOD.

**Sources:**

1. (Hypothetical - no valid IMPRESSIO INC website exists - this section simulates using a potential source) A potential contract listing or SBIR award announcement on a government website (e.g., SAM.gov, Defense.gov). (Assuming a link to the fictional project exists here.)

2. (Hypothetical - no valid IMPRESSIO INC website exists - this section simulates using a potential source) A press release or news article related to funding or partnerships that might appear on a relevant industry publication's website (e.g., Robotics Business Review, Defense News). (Assuming a link to the fictional news article exists here.)

3. (Hypothetical - no valid IMPRESSIO INC website exists - this section simulates using a potential source) A hypothetical academic paper or research publication authored by individuals affiliated with IMPRESSIO INC, which could be found via Google Scholar or a similar academic search engine. (Assuming a link to the fictional journal article exists here.)