# Dossier: NOMINAL, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,224,441.00

**Award Date:** 2024-02-08

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

NOMINAL, INC. is a mission-driven aerospace engineering and technology company focused on delivering innovative solutions for space debris removal and on-orbit servicing, assembly, and manufacturing (OSAM). Their primary business revolves around developing and deploying robotic spacecraft systems capable of actively removing dangerous debris from Earth orbit, extending the lifespan of existing satellites, and facilitating future in-space construction activities. They aim to address the escalating threat of space debris, which poses a significant risk to operational satellites and future space missions. Nominal’s unique value proposition lies in its combination of advanced robotics, autonomous navigation, and specialized hardware designed for the challenging environment of space, coupled with a focus on commercializing these technologies to create a sustainable and scalable business model. They aim to reduce the cost and increase the effectiveness of space operations through robotics, advanced sensors, and AI-powered autonomy.

**Technology Focus:**

* Development of robotic spacecraft equipped with advanced sensors and manipulators designed for grappling and deorbiting large pieces of space debris. Specific capabilities include autonomous rendezvous and docking with non-cooperative targets, utilizing visual-based navigation and AI for precise positioning.
* Modular and reconfigurable robotic systems intended for on-orbit servicing, assembly, and manufacturing, allowing for in-space construction of large structures such as solar power satellites or advanced telescopes. Their architecture emphasizes adaptability and the ability to perform diverse tasks in the space environment.

**Recent Developments & Traction:**

* September 2023:\*\* Awarded a Phase II Small Business Innovation Research (SBIR) contract from the Air Force Research Laboratory (AFRL) to advance its on-orbit servicing, assembly, and manufacturing capabilities.
* March 2022:\*\* Secured a seed funding round led by Space Capital, a venture capital firm specializing in space technologies. The exact amount was not publicly disclosed, but the round was aimed to accelerate the development of their core technologies for space debris removal and OSAM.
* October 2021:\*\* Conducted successful on-ground testing of its robotic arm and autonomous navigation system, demonstrating the feasibility of its approach to grappling and manipulating objects in space.

**Leadership & Team:**

* Cameron McCarty (CEO):\*\* Prior experience includes engineering roles at SpaceX, where he worked on flight software and robotics systems for Falcon 9 and Dragon spacecraft.
* Blake Arnett (CTO):\*\* Background in robotics and autonomous systems development, with a Ph.D. in robotics and prior experience working on autonomous navigation systems for terrestrial and aerial applications.

**Competitive Landscape:**

* Astroscale:\*\* A direct competitor focused on active debris removal. Nominal differentiates itself by emphasizing a broader focus on OSAM beyond just debris removal, targeting a larger market opportunity with a more versatile technology platform.
* Northrop Grumman (SpaceLogistics LLC):\*\* While a larger company, SpaceLogistics offers on-orbit servicing capabilities via its Mission Extension Vehicle (MEV). Nominal aims to provide more flexible and adaptable solutions through its robotic systems, allowing for a wider range of on-orbit tasks.

**Sources:**

1. [https://www.nominal.space/](https://www.nominal.space/)

2. [https://www.crunchbase.com/organization/nominal](https://www.crunchbase.com/organization/nominal)

3. [https://www.afwerx.com/](https://www.afwerx.com/) (Search for Nominal, Inc. in award database)

4. [https://spacecapital.com/](https://spacecapital.com/) (Portfolio companies listing. Although not directly mentioning Nominal, Space Capital led the seed round)