# Dossier: PICKNIK INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,700,000.00

**Award Date:** 2024-02-12

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

PickNik Robotics, Inc. is a robotics software company specializing in motion planning and manipulation solutions for complex robotic systems. Their primary business revolves around providing advanced software tools and services to enable robots to operate autonomously and safely in challenging environments, particularly in unstructured or dynamic settings. PickNik aims to solve the problem of integrating and controlling complex robot systems that require sophisticated motion planning, collision avoidance, and real-time adaptation. Their unique value proposition lies in their MoveIt Studio product, which offers advanced capabilities for developers to rapidly prototype, simulate, and deploy complex robotic applications with a focus on ease of use and developer productivity.

**Technology Focus:**

* MoveIt Studio:\*\* A commercial IDE built on the open-source MoveIt framework, designed to accelerate robotics development. It includes features like a collision checking environment, motion planning libraries, and tools for simulation and deployment. The studio is designed to reduce development time by up to 90% according to internal estimations.
* Motion Planning Expertise:\*\* Specialization in motion planning algorithms and software solutions tailored for various robotic platforms and applications, including mobile manipulation, logistics, and space robotics. This includes algorithms for path planning, obstacle avoidance, and trajectory optimization that are adaptable to changing environments.

**Recent Developments & Traction:**

* Series A Funding (October 2021, $3.3 million):\*\* Closed a $3.3 million Series A funding round led by Blue Venture Investors and followed by Toyota Ventures, helping to accelerate commercialization and expand development of MoveIt Studio.
* Strategic Partnerships:\*\* PickNik has strategic partnerships with various hardware and software companies in the robotics ecosystem, allowing them to seamlessly integrate their motion planning solutions with a wide range of robotic platforms. Specific partners include those in simulation, hardware and end-effectors.
* Enhanced MoveIt Studio Releases:\*\* Continuously releasing updates to MoveIt Studio, adding features like improved simulation capabilities, enhanced collision checking tools, and support for more robot platforms and industrial applications. Recent focuses include improvements to the user interface and support for more collaborative robots.

**Leadership & Team:**

* Dr. Dave Coleman (CEO):\*\* A leading expert in motion planning and robotics. He served as the lead developer and maintainer of the open-source MoveIt framework for many years before founding PickNik. He has a PhD in robotics and extensive experience in the robotics research community.
* Mark Moll (CTO):\*\* Holds a PhD in robotics and has a strong background in motion planning algorithms and software development, with a focus on real-time and embedded systems.

**Competitive Landscape:**

* ABB Robotics:\*\* Offers comprehensive robotics solutions, including programming and simulation software. PickNik differentiates itself by focusing exclusively on motion planning software and tools, offering a more specialized and potentially more advanced solution for complex robotic applications.
* Siemens Process Automation:\*\* Provides industrial automation software and services, including robotics programming tools. PickNik's focus on open-source compatibility and modularity in its software is a key differentiator.

**Sources:**

1. [https://picknik.ai/](https://picknik.ai/)

2. [https://news.crunchbase.com/news/picknik-robotics-series-a-funding/](https://news.crunchbase.com/news/picknik-robotics-series-a-funding/)

3. [https://www.therobotreport.com/picknik-robotics-raises-3-3m-for-moveit-studio-software/](https://www.therobotreport.com/picknik-robotics-raises-3-3m-for-moveit-studio-software/)

4. [https://www.youtube.com/watch?v=fG-6S1a8TjI](https://www.youtube.com/watch?v=fG-6S1a8TjI) (PickNik presentation providing insights into the technology)