## Realization of Variable-Volume and Variable-Type Production through Flexible Fabrication Using AMR

(TriOrb Inc.)



City	Year of Establishment	Founder	
Kitakyushu City, Fukuoka Prefecture	2023	Shuichi Ishida	

Partner VC	Latest round of Fundraising	Valuation	
The University of Tokyo Edge Capital Partners Co.Ltd.	Series A	JPY 1,580 million	

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Due to the lack of flexibility in current mass production lines in the manufacturing industry, we propose a flexible fabrication production system based on AMR utilizing the ball-driven omnidirectional movement mechanism "TriOrb BASE." This system addresses the challenges of variable-volume and variable-type production, aiming to enhance productivity and efficiency in the manufacturing sector.

Research Outline

"In this research and development project, we aim to improve the TriOrb BASE and autonomous mobility systems to control multiple AMRs and achieve integration with various robotics technologies. Our objectives include:Development and validation of AMRs for electronic components and semiconductor manufacturers. Enhancing the intelligence of autonomous mobility systems, including the development of advanced environmental recognition technologies and path generation algorithms. Development of user-friendly robot controllers. Development of an integrated operational control system for multiple AMRs. Development of integration technologies with various robotics, starting with omnidirectional collaborative robots."

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Mobility	STS 2024~2026FY	JPY 387 million	_

Website: https://triorb.co.jp/en/