

Asteria ART (Japan) and Element Robotics (Australia) Launch Joint Development of Autonomous Robotics and Lunar Rover Mission Simulation Software

Asteria Corporation's (Head Office: Tokyo, Japan; CEO Pina Hirano; Tokyo Stock Exchange listed, Security Code: 3853, hereinafter "Asteria") consolidated subsidiary, Asteria Artificial Recognition Technology LLC (Head Office: Tokyo, Japan; CEO Tom Sonoda; hereinafter "Asteria ART") and Element Robotics Pty Ltd (Head Office: Melbourne, Australia; CEO Tenzin Crouch hereinafter "Element Robotics") announced today the start of joint development of autonomous robotic technologies and software tools for lunar rover missions.

■Background

Asteria ART has developed and been providing "Artefacts", a continuous simulation platform for robotic applications since 2025. "Artefacts" is a development environment that enables centralized management of operation testing and simulations of robotic applications in a virtual space, without relying on actual devices or physical environments. By significantly reducing rework – which has traditionally depended on physical verification – Artefacts dramatically improves both efficiency and speed. As a result, development man-hours have been reduced by 98%, costs by 50%. And the time required to begin development can be shortened from several months to as little as one day, delivering a breakthrough in overall productivity for robotic development.



Element Robotics is a company specializing in the development of autonomous navigation systems and mission simulation tools for lunar rovers. Its expertise spans embedded software, rover control, and mission operations, with a strong focus on enabling highly reliable navigation and successful mission execution in extreme environments. In addition, Element Robotics builds a wide range of simulation assets and content to replicate unique lunar conditions such as lunar terrains and mission scenarios, supporting rover system design, testing, and operator training.

By combining Asteria ART's "Artefacts" platform with Element Robotics' rover autonomy expertise, the two companies will jointly develop software tools to support rover missions and ensure reliable execution of projects in lunar conditions.

■Overview

Through this joint development, the two companies aim to advance continuous simulation-based testing and enable test automation through the joint development of high-precision testing software tools to improve the reliability of operation on the lunar surface.

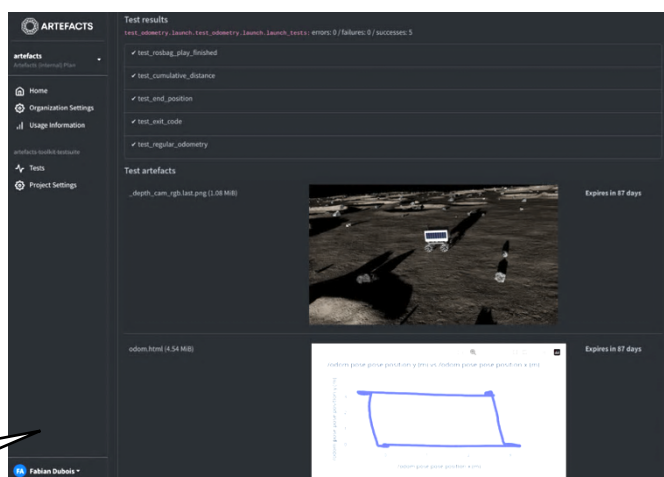
Asteria ART will enhance the capabilities of "Artefacts" to meet the specific needs of Element Robotics' lunar rover navigation software. It plans to improve support for advanced 3D simulators with photorealistic rendering, as well as adapting the reporting tools to the requirements of lunar missions.

Meanwhile, Element Robotics will develop lunar mission scenarios and simulation assets, such as lunar terrain simulation for use on "Artefacts", while also providing feedback to guide platform improvements of the system.

■Future Plans

The joint development is planned to run through August 2026, to ensure the smooth execution of projects utilizing Element Robotics' software. In addition, Artefacts will support the development of Element Robotics' lunar rovers by scaling the use of a simulation feature that accurately reproduces interactions between lunar rovers and other robots with the lunar environment, aiding in robot system design and operator training.

Lunar environment simulation using
Asteria ART's "Artefacts"



■Comments

"The collaboration with Element Robotics enables Artefacts to contribute to advanced lunar development by accelerating development time and improving reliability."

Tom Sonoda
(CEO of Asteria ART)

"By working closely with Asteria ART, we can accelerate the deployment of simulation tools that will help pave the way for the next generation of lunar rover missions."

Tenzin Crouch
(CEO of Element Robotics)

■About Asteria Artificial Recognition Technology LLC (<https://www.artefacts.com/>)

Asteria ART is the provider of "Artefacts", a platform that streamlines robot application development through its unique simulation technology. By enabling rapid testing without the need for physical environments and refinement from the early stages of development, "Artefacts" accelerates the development and deployment of advanced robotics systems.

■About Element Robotics Pty Ltd (<https://elementrobotics.space/>)

Element Robotics develops autonomous navigation and mission simulation software for lunar rovers. Its flagship products, LunarSim and AutoRover, support rover system design, accelerate software development and testing, and strengthen mission operations readiness to improve the reliability of lunar rover missions.

■About Asteria Corporation (<https://en.asteria.com/>)

Asteria is a software development company that provides products and services that "connect" systems, people, things and intentions based on the concept of "Connecting the World with Software". Its flagship product, "ASTERIA Warp" is middleware which integrates data from different systems and cloud services without coding and has been adopted by over 10,000 companies. Other products include digital storage app "Handbook X", mobile app builder "Platio" and no-code AI/IoT platform "Gravio". By offering these products, Asteria promotes digital transformation (DX) and helps organizations improve their business process efficiency. Asteria is also engaged in raising awareness of new technologies and their value and fosters innovation through its involvement in the launch of Blockchain Collaborative Consortium and No Code Promotion Association.

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