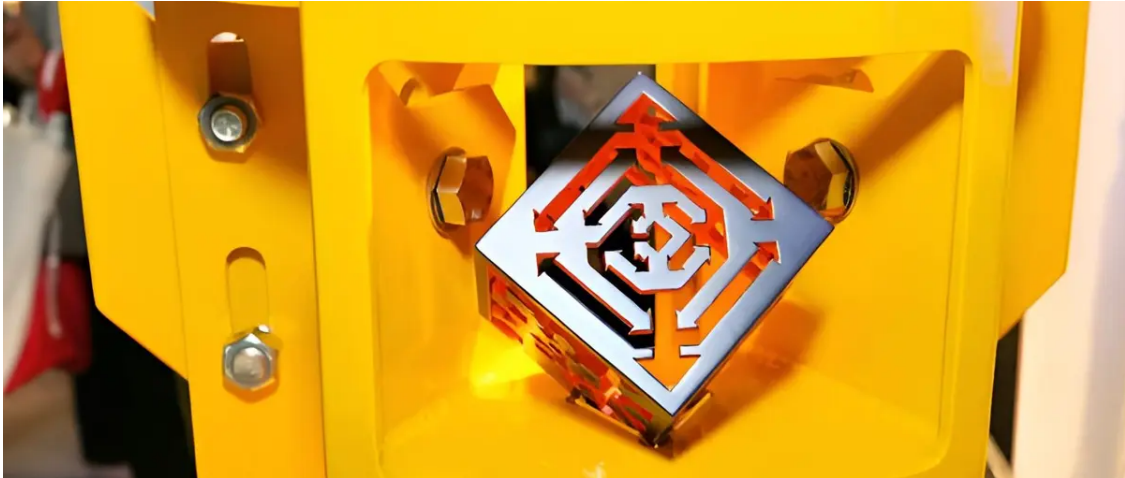




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Singapore has installed an art gallery deep in the ocean



By **Rodielon Putol**
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Singapore has made history as the first country to install an art gallery 7,000 meters (22,965 feet) underwater.

This underwater installation consists of three stainless steel cubes created by artist and architect Lakshmi Mohanbabu, who previously sent her artwork into space aboard the International Space Station in 2022.

In December, the artworks were deployed by NuStar Technologies off the coast of Japan near the [Mariana Trench](#).

The installation is more than a symbolic gesture. It's part of a collaborative project with Japan's Agency for Marine-Earth Science and Technology ([JAMSTEC](#)), which aims to enhance early warning systems for undersea earthquakes.

A blend of science, art, and engineering

One of the three cubes was created using a novel hybrid manufacturing technique developed by researchers from Nanyang Technological University, Singapore (NTU Singapore).

The installation coincides with Singapore's SG60 celebrations and was recognized in a ceremony held at Gallery ART NOW, attended by [NTU](#) Board Chair Goh Swee Chen, who also chairs the [National Arts Council](#).

Each cube is 10 centimeters (3.94 inches) wide, made of corrosion-resistant stainless steel, and showcases five symbols from Mohanbabu's

movement, direction, and time.

These symbols are displayed on five of the six faces of each hollow cube, each with a unique top-facing design. For instance, the cube made using NTU's 3D printing method features Dromenon on its top, while the others display Primary and Nautilus.

Art gallery in the deep ocean

This project is a tribute to all those impacted by [natural disasters](#). According to Mohanbabu, art has the unique ability to connect humanity across physical and metaphorical depths.

"With the Deep Ocean Interactions Project, we aim to inspire meaningful change highlighting our interconnected existence by bringing people together through a shared journey and purpose," said Mohanbabu.

"The earlier interactions cubes that had orbited around Earth in space will also be sent to the moon as part of a permanent art installation. With these two art installations, Singapore is the first nation to have artworks on the moon and the [deep ocean](#)."

"This milestone is also a testament to Singapore's pioneering spirit and tenacity as we celebrate SG60 this year."

Scientific discovery and cultural expression

The cubes were incorporated into the Long-Term Borehole Monitoring System (LTBMS), originally developed to track [seismic activity](#) around tectonic plate boundaries.

To include the artwork, [NuStar Technologies](#) and JAMSTEC modified the LTBMS to add custom cavities and holders.

An ultra-deep-sea camera system was also deployed to capture images and footage of the installation at these record depths.

The cubes were officially installed on December 12, 2024, becoming part of the Dense Ocean Network System for Earthquakes and Tsunamis (DONET), Japan's early-warning system.

"Together with Lakshmi and our partners at JAMSTEC, we have demonstrated that the deep ocean can be a platform for both scientific discovery and cultural expression," said Goi Kim Kok, managing director of NuStar Technologies.

"It is also timely that next year will mark the 60th anniversary of Singapore-Japan diplomatic relations."

Stronger structures for extreme environments

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The method combines 3D printing with laser cutting to stack 80 ultra-thin layers of stainless steel, creating a wall just 4mm thick.

The result is a structure over 70 percent stronger than conventional steel and capable of withstanding the crushing pressure and corrosive nature of the deep sea.

Professor Lai Changquan developed LAPIS with his team at NTU's Singapore Centre for 3D Printing.

"This project demonstrates the potential of interdisciplinary research to push the boundaries of what is possible. Creating a piece of art capable of withstanding the immense pressures of the deep ocean is a testament to the versatility and durability of our technology," said Professor Changquan.

Following the success of this project, Professor Lai and his students launched a start-up with support from NTU's Innovation and Entrepreneurship initiative. Their goal is to expand the use of this technology in aerospace, maritime, and energy sectors.

Art across land, sea, and space

This is the third time Mohanbabu has worked with NTU SC3DP. Previous collaborations included prototyping and 3D printing miniature Interactions artworks.

In 2022, two of her cubes were sent to space as part of the Moon Gallery project, with plans for them to be placed on the [Moon](#) in 2025.

Now, with installations in outer space and the ocean floor, the Deep Ocean Interactions Project stands as a reflection of Singapore's spirit of innovation and unity.

Art gallery connecting cultures

Mohanbabu sees this project as a symbol of what is possible when creativity and science meet. She hopes it inspires others to push past limits – whether that's aiming for the stars or reaching the bottom of the sea.

The colors of the three cubes – red and white, ocean blue and orange, and purple and aquamarine blue – represent Earth, change, and cosmic mystery.

The red and white cube celebrates the relationship between Singapore and Japan, drawing from shared flag symbolism of the sun, stars, and moon.

More than a statement piece, this project is a working model of how design, science, and purpose can come together to spark global connections – and maybe even save lives through its earthquake monitoring mission.