

PRESS RELEASE

UNDER EMBARGO UNTIL MAY 14, 6:00 AM EDT.

Cartken and Stirling Ultracold Partner on Autonomous Solution for Ultra-Low Temperature Material Transport

Streamlining Cold-Chain Intralogistics with Fully Autonomous Robots Navigating Indoors, Outdoors, and Between Floors



OAKLAND, CA/ATHENS, OH, May 14, 2025 — [Cartken](#), a leading autonomous robotics company, and [Stirling Ultracold](#), a pioneer in portable ultra-low temperature (ULT) storage solutions, are proud to announce a groundbreaking partnership. Together, they are launching an autonomous solution designed to transport temperature-sensitive samples, reagents, and other materials across life sciences, healthcare, research, and industrial environments.

This integration combines the outdoor, indoor, and multi-level autonomous navigation capabilities of the [Cartken Hauler robot](#) with [Stirling's ULT25NEU Portable Ultra-Low Temperature Freezer](#), enabling fully autonomous movement of critical materials requiring storage temperatures as low as **-86°C (-122.8°F)**.

Today, many facilities still rely on manual transport for temperature-sensitive materials—requiring employees to physically move samples between labs, storage areas, and production lines. Existing automation solutions, if present, are often limited to a single building or floor, leaving cross-campus logistics fragmented and inefficient. The

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Cartken-Stirling integration solves this gap by offering end-to-end autonomous transport across entire sites, including seamless **elevator integration** to navigate multi-level facilities.

"This partnership showcases how innovation in robotics and cold storage can come together to solve real-world challenges," said Christian Bersch, Co-founder & CEO of Cartken. "It unlocks new possibilities for laboratories, hospitals, and industrial campuses needing reliable, autonomous cold-chain transport to streamline their intralogistics workflows."

"At Stirling Ultracold, we're proud to be the industry leader in portable ultra-low temperature solutions, and we're committed to pushing the boundaries of innovation. Our partnership with Cartken and their autonomous robotics platform is yet another example of how we continue to lead the way in next-generation cold storage applications," said Jason Gillum, Inside Sales Manager, Stirling Ultracold.

Key Features of the Cartken-Stirling Autonomous Cold-Chain Solution:

- **Temperature Range:** from -86°C to -20°C (-122.8°F to -4°F), adjustable in 1°C increments.
- **Storage Volume and Capacity:** 25 liters (0.9 cu.ft.), 18 standard 2" boxes
- **Internal Storage Dimensions:** 332 x 221 x 340 mm / (13.1 x 8.7 x 13.4 in.)
- **Wireless Monitoring:** Continuous temperature monitoring and logging
- **Seamless Indoor & Outdoor Mobility:** Autonomously handles transitions between buildings, corridors, and outdoor pathways, including rough terrain.
- **Elevator Integration:** Compatible with various elevator systems for uninterrupted multi-floor transport
- **All-Weather & Day/Night Navigation:** Operates reliably in rain, sun, snow, and extreme temperatures, and in any lighting conditions, 24/7.

"Our robots have already transformed how leading pharma and biotech companies handle intralogistics—eliminating inefficiencies and manual transport of tools, materials, and samples across their campuses," said Christian Bersch, Co-founder & CEO at Cartken. "But when they asked for a way to automate the movement of temperature-sensitive samples, we knew we had to push boundaries. This first-of-its-kind autonomous cold-chain solution is designed in direct response to industry needs."

About Cartken

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Cartken is an AI-powered robotics company transforming onsite logistics and last-mile delivery with autonomous robots that operate seamlessly indoors and outdoors. Our robots help redeploy human labor to higher-value tasks, boost productivity, and reduce labor costs. They autonomously navigate diverse terrains, weather conditions, and floor levels without requiring infrastructure changes. Powered by advanced AI and computer vision, Cartken robots perform well in dynamic environments and can adjust routes in real time. Founded by former Google engineers, Cartken leverages deep expertise in self-driving technology and robotics to provide the safest, most reliable, and innovative delivery solutions on the market.

For more information, visit www.cartken.com and follow us on [LinkedIn](#) and [Vimeo](#).

About Stirling Ultracold

Stirling Ultracold designs and manufactures environmentally sustainable, ultra-low temperature (ULT) freezers for the global life science market from its headquarters in Athens, Ohio. Powered by the free-piston Stirling engine, as the first freezer manufacturer in the U.S. to use 100 percent natural refrigerants, Stirling's upright and undercounter ULT freezers use up to 70 percent less electric power than standard compressor-based ULT freezers, as validated by the industry's first ENERGY STAR® rating for ULT freezers. The company also produces the industry's only portable ULT freezer solution, which is ideally suited for remote clinical trials and biologic drug delivery.

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