



## ISEE Unveils AI-Powered Trailer Auto-Coupling System

**CAMBRIDGE, Mass., February 06, 2024** – At the Manifest supply chain technology showcase, ISEE unveiled their fully-automated, AI-powered trailer auto-coupling system for autonomous yard trucks. ISEE’s industry-first technology autonomously couples the trailer and connects the airlines without any trailer modifications, adapters, markers, or remote control. The new patent-pending technology unlocks even more safety and efficiency benefits for ISEE customers.

The new ISEE trailer auto-coupling system integrates a six-axis robotic arm on the back of the autonomous yard truck cab. Using AI-powered auto-coupling technology, the system autonomously identifies the precise locations and orientations of the trailer air connectors for both the service and parking brakes. Trailer air connectors, known as gladhands, vary in location, orientation and type from one trailer to another, making the process of finding the gladhands and attaching them a challenging task for a robotic system. By leveraging extensive experience and data from over 10,000 operational moves in customer sites, ISEE’s AI-powered system was trained to precisely identify and connect the airbrake lines autonomously, eliminating the necessity for remote control or attaching extra adapters to the trailers.

Automating the trailer coupling process eliminates the need for staff to manually couple and decouple trailer airlines, significantly enhancing safety and simplifying management. The US Bureau of Labor Statistics reports that almost 30% of injuries in the trucking industry occur when drivers slip or fall while working. Stepping outside the cab to perform tasks such as connecting the trailer air lines poses a risk, including slippery steps and the cab's average height of four feet from the ground.

“Our latest AI-Powered Trailer Auto-Coupling Technology leverages generative AI models for data augmentation and feature generation. This technology adopts an end-to-end approach to train gladhand type and pose in a consistent fashion, ensuring adaptability and versatility in our AI systems across diverse gladhand variations and environmental conditions,” said Yibiao Zhao, ISEE CEO and co-founder. “The robot arm is adept at attaching and detaching the gladhands, skillfully locating and handling them in any position, akin to human dexterity.”

The new AI-Powered Trailer Auto-Coupling Technology augments ISEE’s existing, patented auto-coupling solution that customers are currently using today. The existing solution uses a trailer adapter that standardizes various trailer connectors in a consistent location across the trailer fleet. These adapters can be easily clipped onto trailers as they enter the yard and are removed when the trailer departs. This solution is ideal for customers who control their fleet or utilize a captive pool of trailers for their campus. Customers can now choose which level of trailer automation they prefer.

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## **About ISEE**

ISEE is an autonomous technology company that improves efficiency and safety with trucks designed to flexibly adapt to any environment, empowering workers to thrive alongside automation. Founded in 2017, ISEE was developed out of AI research from the Massachusetts Institute of Technology (MIT). In 2023, ISEE won the SupplyTech Breakthrough Autonomous Truck of the Year. This groundbreaking solution is automating warehouse yards, depots, and shipping terminals to improve the supply chain and help people get the goods they need quickly and at a lower cost. For more information, visit: [www.isee.ai/](http://www.isee.ai/).

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