

Installed 30 new robots that autonomously pick products on-site by recognizing their shape using AI

Full automation of the loading of order boxes up to 20 kg without human intervention!

New robotics solution introduced at Honda CFC of Aeon's online-only netsuper Green Beans

AEON NEXT Co., Ltd. (Head office: Mihama-ku, Chiba; CEO Bharat Rupani) will fully introduce cutting-edge robotics solutions of On Grid Robot Pick and Auto Frame Load at Honda CFC (Customer Fulfillment Center), a large logistics hub, to improve productivity at logistics sites, reduce the physical burden on employees, and create a safer and more comfortable working environment.



On Grid Robot Pick



Auto-frame load

In recent years, demand for online food shopping has increased dramatically, making it imperative to establish highly efficient and flexible operational systems at distribution centers. Especially, the pick & pack process of products and the delivery preparation work, which involve a high physical burden, relied partly on manual labor.

At Honda CFC, two automated robots utilizing AI and robotics technology are introduced to improve the efficiency of these tasks.

By automating about 30% of the tasks previously done manually with robots through this introduction, the burden on employees from simple and heavy labor will be significantly reduced, while achieving a more stable supply system, improved work

efficiency, and a more comfortable working environment.

AEON NEXT will continue to introduce and optimize the latest automation technologies to dramatically improve operational efficiency and provide even faster, higher quality services, thereby providing more convenient and reliable services.

<Outline of the newly introduced robotics solutions>

■ On Grid Robot Pick

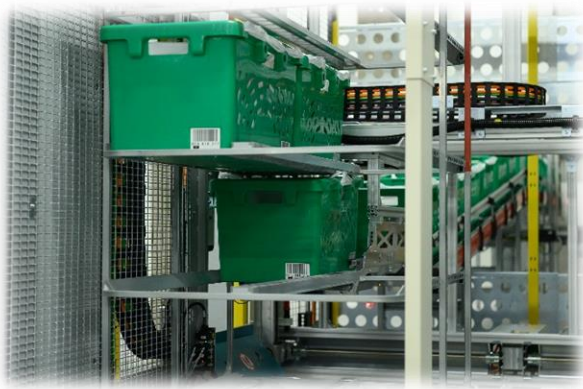
This is state-of-the-art robotic picking that picks & packs the products ordered by customers. AI recognizes and judges products with a variety of sizes, shapes, weight, and fragility on the spot, and carries out bagging. By removing products directly from the grid (product shelves), it achieves space savings and productivity improvements in places that were traditionally done manually. It is possible to pick about 200,000 items per day. The number of products picked starts from about 3,000 items, and is expected to reach about 10,000 items during the FY2025.

* Items that are not eligible for picking include products weighing 2 kg or more and those that are fragile or easily damaged.



■ Auto-frame load

This is a robotics technology that automatically loads the tote ready for delivery onto the delivery frame (cart). In the most labor-intensive task of delivery preparation, an image recognition camera and AI grasp the shape, weight, and condition of the tote's frame in real time, automatically loading totes weighing up to 20 kg at the optimal position without human intervention. Previously, loading was done manually based on instructions that considered delivery order and weight balance determined by AI, but this heavy labor has now been fully automated, greatly reducing the burden on workers. Furthermore, the design also takes into account loading efficiency and weight balance on delivery vehicles.



<Regarding existing automated robot equipment>

■ Bots

This robot lifts totes containing products and transports them to designated locations while traveling on the grid (product shelves) inside the CFC. In response to customer orders, it accurately and quickly transports totes containing the necessary products, thereby improving the efficiency of picking and packing operations.



■ Auto-bagging

This is an automatic bag-hanging machine that places more than 50 bags onto totes per minute. It can place up to 3 bags in a tote for delivery to the customer.



■ Vacuum lifter

Hand crane type balancer to reduce the burden on workers. It is a device for lifting and moving heavy objects and hard-to-hold objects with ease and safety.

■ Automated Guided Vehicle (AGV)

This is an unmanned transport vehicle that can carry two carts of inbounding products simultaneously. It automatically runs along a pre-set route to transport incoming products efficiently and accurately to their destination.



Vacuum lifter



Automated Guided Vehicle(AGV)

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