

Robot that stocks drinks is newest thing at the corner store

September 1 2022, by YURI KAGEYAMA



TX SCARA robot works, stocking drinks in the refrigerated section of a FamilyMart convenience store in Tokyo, Friday, Aug. 26, 2022. The robot can restock shelves with up to 1,000 bottles and cans a day. Credit: AP Photo/Yuri Kageyama

A small robot with a clip-like hand and enough smarts to know which

drinks are popular is part of an effort to make convenience stores even more convenient.

On a recent day in Tokyo, the robot named TX SCARA slid back and forth behind the refrigerated shelves in the back of a FamilyMart [store](#).

The hand on the end of its mechanical arm grasped a bottle or can from the stacks to the side, then the robot slithered to the right spot and placed the drink on the shelf—in a place chosen after its [artificial intelligence](#) and tiny cameras matched the kind of beverage to what's running short.

TX SCARA is filling a needed role in Japan's "conbini," as the ubiquitous tiny stores selling snacks, drinks and knick-knacks are called.

Most such stores are open 24-seven, filled with 3,000 kinds of products, but have relatively few workers. The beverage shelves in the back are farthest from the cash register, keeping workers running back and forth. And the beverage space is refrigerated, uncomfortably cold for people to stay there too many hours.

TX SCARA, which goes at an undisclosed price, can restock up to 1,000 bottles and cans a day. Its artificial intelligence, called "GORDON," knows when and where products need to be placed on shelves, according to Tokyo-based Telexistence, which created TX SCARA.



Telexistence CEO Jin Tomioka stands before his company's robot, TX SCARA, center back, as it stocks drinks in the refrigerated section of a FamilyMart convenience store in Tokyo, Friday, Aug. 26, 2022. The robot can restock shelves with up to 1,000 bottles and cans a day. Credit: AP Photo/Yuri Kageyama

"We want to automate all the repetitive jobs and boring jobs done by humans. That is the direction we are going. And the best way to do that is to use the robots," Chief Executive Jin Tomioka said.

Industrial robots are already common in factories, but Tomioka's 50-employee company sees great potential at warehouses and home centers, he said. His robots are far more affordable than industrial robots, such as those at auto plants, but can prove just as crucial for

[social needs](#), designed to coexist and collaborate with people, helping out with routine and rudimentary tasks.

Tomiooka's robots are tailored for existing stores, which don't have to change their layout or routine. Their hardware uses Nvidia GPU-accelerated AI technologies to allow for [remote control](#) over Azure, the cloud computing service operated by Microsoft.

A Telexistence operator wearing virtual reality glasses can see problems when they occur, such as a dropped beverage, and fix them from the company office.



In this image made from video, Raul Vicente, a professor of Data Science at University of Tartu, speaks in Tartu, Estonia, during an online interview with The Associated Press on Friday, Aug. 26, 2022. Robots are proving a plus in the

era of the coronavirus pandemic by reducing infection risks, said Vicente.
Credit: AP Photo

TX SCARA is now at 300 of the 16,000 FamilyMart stores in Japan. There are 40,000 more combini in Japan, and the U.S. has about 150,000 [convenience stores](#).

With its aging population, Japan has a [labor shortage](#) that's expected to only get more severe in coming years.

FamilyMart Executive Officer Tomohiro Kano referred to the Japanese expression "seeking even a cat's paw for help" to describe how desperate a situation might get. "At FamilyMart, we are seeking a robot's arm for help," he said with a laugh.



Telexistence CEO Jin Tomioka, left, and FamilyMart Executive Officer Tomohiro Kano look at shelves of a FamilyMart convenience store in Tokyo, Friday, Aug. 26, 2022, as the TX SCARA robot stocks shelves with bottles and cans. The robot can restock shelves with up to 1,000 bottles and cans a day. Credit: AP Photo/Yuri Kageyama



FamilyMart Executive Officer Tomohiro Kano looks at a packed lunch at a FamilyMart convenience store in Tokyo, Friday, Aug. 26, 2022, where the TX SCARA robot is stocking shelves with bottles and cans. The robot can restock shelves with up to 1,000 bottles and cans a day. Credit: AP Photo/Yuri Kageyama

While modern robots are taking on serious work like mapping disaster zones and helping doctors perform surgery, the humble TX SCARA tirelessly does the unglamorous work of stocking shelves with bottled tea and orange drinks.

IT worker Taisuke Miyaki watched the [robot](#) working as he peered into the beverage shelf. He acknowledged he hadn't noticed it before although he shops at FamilyMart often, especially for his favorite bottled

jasmine tea.

"Come to think of it, the shelves are always nicely stocked lately," he said.

© 2022 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Robot that stocks drinks is newest thing at the corner store (2022, September 1) retrieved 1 May 2024 from <https://techxplore.com/news/2022-09-robot-stocks-corner.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.