

NEWS RELEASE

October 21, 2022

Telexistence Inc.
SENKO Co., Ltd.

[Joint Press Release] Telexistence and SENKO Conduct Demonstration Tests of Logistics Facilities Featuring TX Robot Solution

Telexistence Inc. (Head office: Chuo-ku, Tokyo; CEO: Jin Tomioka; "TX") and SENKO Co., Ltd. (Head office: Kita-ku, Osaka; President: Kenji Sugimoto; "SENKO") conducted demonstration tests of TX robot solutions at SENKO's logistics facilities.



(Video of robot in action: <https://youtu.be/FvfFnT30x8k>)

Video demonstrating the TX robot solution test conducted at Nishikanto Logistics Center outsourced by SENKO for logistics operations, taken on October 20, 2022.

The TX robot solution was developed based on hybrid control robot technology combining automatic control by TX's proprietary AI system with remote control by operators, and this demonstration test showcased features of its multitasking and multilocation capabilities. Successfully developing robot solutions capable of multitasking and multilocation operations will mean such systems can be used at medium-scale logistics facilities or at existing logistics facilities where installation of large-scale automated equipment is difficult, thereby resolve challenges faced by the logistics industry such as increasing labor costs and chronic labor shortages.

<Main test items>

1. Ability to cover various types of manual loading without the use of dedicated material handling equipment (multitasking capability)
 - Placing items onto conveyor belts from pallets
 - Loading basket cart with items from pallets

2. Ability to operate in various different working areas without any prior teaching (multilocation capability)
 - Ability to operate in different areas for each type of work without pre-registering data on surrounding location

<Main technical features>

- Developed a proprietary application so that remote control operators can register data on surrounding location required for working in areas with different types of manual loading easily and in real-time
- Developed a proprietary AI system for automated control of all required steps related to placing items on conveyor belts or loading basket carts, such as identifying where to grasp objects and generating movement plans
- Developed a proprietary robot hand capable of handling cases with perforated grasping surfaces or cases made of soft materials

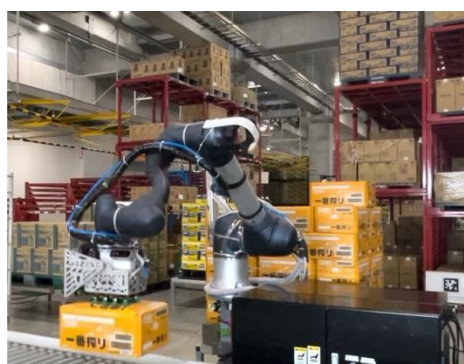
Looking ahead, TX will focus on capabilities for complex manual loading such as placing items on conveyor belts from mixed pallets and increasing operating speed, and in 2023 is planning to conduct a test operating system at a SENKO logistics facility, featuring the TX robot solution to perform actual work.

SENKO installed a depalletizing arm robot at its new logistics facilities in 2014, and since then has been active in implementing labor and energy-saving equipment like AGVs. This test aimed to demonstrate whether robots can be moved to multiple working areas at existing logistics facilities to perform various types of manual loading work in place of human workers, while performing operations accurately to suit each working area. SENKO will continue deploying advanced technologies in the future with the aim of achieving a better work-life balance by reducing the workload and working hours of employees. This will help resolve issue in the logistics industry related to worker shortages, and thereby allow SENKO to provide customers with logistics services that meet their specific requirements.

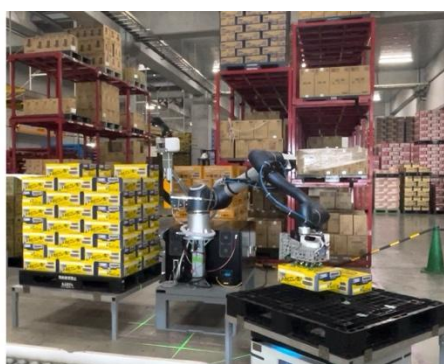
■ SENKO Group and TX demonstration test overview

1. Date of test: October 21, 2022

Location: Nishikanto Logistics Center, SENKO Co., Ltd.



Placing items on conveyor belt



Loading onto basket cart/pallets



Robot hand for grasping perforated objects

Press kit: [TX Press Kit 2022.10.21 Logistics PoC](#)

<SENKO Co., Ltd.> (<https://www.senko.co.jp/>)

SENKO operates an extensive range of services developed around its domestic car transportation network, including rail and marine transportation, warehousing, in-plant logistics, and international logistics. It provides comprehensive services at distribution centers through its combined logistics functions such as storage, delivery, distribution processing, and information distribution, and assists customer SCM with its logistics systems developed using the latest IT by providing optimal system design and operation to achieve more efficient, streamlined logistics.

Location: 1-1-30 Oyodonaka, Kita-ku, Osaka

Representative: President and Representative Director Kenji Sugimoto

Established: April 15, 2016 (founded September 1916)

<Telexistence Inc.> (<https://tx-inc.com>)

TX is a robotics company that develops remote controlled robot with artificial intelligence, with the mission to change robots, change structures, and change the world. With highly specialized professionals from all over the world, TX is consistently developing hardware, software, AI, and remote-control technologies in-house. TX aims to expand the scope of robot activities beyond the factory and to revolutionize the fundamental nature of labor society.

Location: CROSS DOCK HARUMI, 4-7-4 chuo-ku, Tokyo

Representative: Co-Founder & CEO Jin Tomioka

Established: January 23, 2017

Career information: <https://tx-inc.com/ja/career-jp/>
