NEWS RELEASE

March 4, 2022

Telexistence Inc.
Nichirei Logistics Group Inc.
SENKO Co., Ltd.

Telexistence Partners with Nichirei Logistics and SENKO to Start Demonstration Test of Logistics Facilities Featuring its New Robot

Telexistence Inc. (Head office, Chuo-ku, Tokyo; CEO, Jin Tomioka; “TX”), Nichirei Logistics Group, Inc. (Head office, Chuo-ku, Tokyo; President, Kazushiko Umezawa; “Nichirei Logistics Group”) and SENKO Co., Ltd. (Head office, Kita-ku, Osaka; President, Yasuhisa Fukuda; “SENKO”) began a joint demonstration test of a TX robot at facilities owned by Nichirei Logistics Group and SENKO, with the aim of developing new logistics operations based on hybrid control robot technology that can be operated with TX’s proprietary AI system or remotely by human operators.

https://youtu.be/CdIYSjFbHXg

Video taken on March 1, 2022 demonstrating the TX robot in operation at the Logistics Network, Higashi Ogishima Distribution Center.

The first step of today’s demonstration test involved TX’s remote-controlled robot loading mixed cargo into a cart in the refrigerated area of Nichirei Logistics’ distribution facility. A further demonstration test is also scheduled to be conducted in the fall of 2022 at one of SENKO’s logistics facilities that serves a major retailer.

TX’s robot designed for use at logistics facilities comprises a collaborative robotic arm, an AGV (Autonomous Guided Vehicle), an end-effector, and a remote-control system(*1). Ordinary palletizing and de-palletizing robots need to be anchored to the floor, limiting the areas where such robots can be operated and also require the use of additional material handling equipment for processes before and after operations performed by the robot. In contrast, TX’s robot comes with an AGV and remote-control system, and is completely powered by the battery built-in to the AGV, meaning operation is possible for work that requires movement or in different locations at specific times. The operator controlling the robot remotely is also able to visually verify the object that the robot is grasping and where the object is to be stacked, meaning the ideal level of grip or placement control is possible to suit the size of cases. Operations that traditionally require complex procedures, like carts fitted with insulated covers, can be handled with other cargo so as to maintain the same level of loading efficiency.

(*1) The collaborative robotic arms and AGVs are made by other companies.

With the logistics industry suffering from soaring labor costs and chronic labor shortages, this test demonstrates how TX is able to enhance the working environment and boost productivity through its Augmented Workforce Platform (AWP)(*2), by using robots as substitutes for performing work in refrigerated areas or for transporting heavy objects that place a heavy physical toll on the human body. Adopting AWP to address the challenges that plague the logistics industry matches TX's corporate mission of freeing up workers from being involved in all physical labor tasks, and TX is moving to roll out its robots in full force at logistics facilities.

(*2) A platform that provides control through an optimal combination of remote control and machine learning.

The Nichirei Logistics Group is focused on process innovation to address labor shortages, reduce the load on workers, and change on-site work so that anyone can do it, and is continuing to work on building an optimal labor environment and system leveraging the characteristics of both humans and machines. This test demonstrates the potential of remote work and the development of a stress-free work environment for logistics center operations, by having human operators in an office remotely control (movement and work) a robot operating in a refrigerated area. The Nichirei Logistics Group will continue to play an active role in advancing the use of cutting-edge technologies and the digitization of operations, as a way of achieving sustainable logistics underpinning its customers' supply chains.

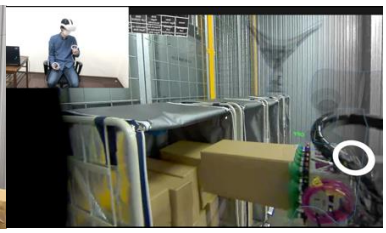
SENKO rolled out a depalletizing arm robot in 2014, and since then has been active in implementing labor and energy-saving equipment like AGVs. The feature of this TX robot with the most potential is its movement capabilities. Traditional robots are difficult to move once they have been installed. In contrast, TX's robot is able to move to suit specific work times or tasks, which significantly increases the operating time of the robot. Operators are also able to constantly monitor the robot remotely, which means any issues can be identified and addressed quickly. Methods for addressing labor shortages for warehouse operations has become a pressing concern. SENKO is moving to use robots in place of human workers as a way of reducing physically demanding tasks such as working in hot summers or manual loading and unloading, and is also aiming to provide as many people as possible a means of working that is not limited by time or location as part of efforts to achieve a work-life balance.

■ Nichirei Logistics Group and TX demonstration test overview

1. Date: March 4, 2022
2. Location: Logistics Network Inc., Higashi-Ogishima Distribution Center
   (100% subsidiary of Nichirei Logistics Group)

Logistics facility where the test was conducted

Remotely control the robot and operator's view



Robot stacking objects at the top of a cart

Press kit: [TX Press Kit 2022.03.04 Logistics PoC]

<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. This technology is being developed with a grant from the national research and development agency New Energy and Industrial Technology Development (NEDO).

Location : CROSS DOCK HARUMI, 4-7-4 Harumi, Chuo-ku, Tokyo
Representative : Jin Tomioka, Co-Founder & CEO
Established : January 23, 2017
Career information : https://tx-inc.com/ja/career-jp/

<Nichirei Logistics Group Inc.> (https://www.nichirei-logi.co.jp/)
Nichirei Logistics Group Inc. is a low-temperature logistics corporate group with the leading refrigerated storage capacity in Japan. It operates a logistics network business centered on transportation and delivery, TC and 3PL, a regional storage business with refrigerated warehouse capabilities, overseas operations in Europe, China, and ASEAN countries, and an engineering business covering all stages of planning, design, construction, and maintenance management of refrigerated facilities. The company aims to make its proprietary high-quality low-temperature logistics become a global standard.

Location : Nichirei Higashi-ginza Bldg., 6-19-20 Tsukiji, Chuo-ku, Tokyo
Representative : Kazuhiko Umezawa, President
Established : April 1, 2005

<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 : Yasuhisa Fukuda, President and Representative Director
Established : April 15, 2016 (founded September 1916)