

## Commencement of Demonstration Experiment on Strength Evaluation of Corrugated Cardboard Cases

LOGISTEED, Ltd. is pleased to announce the launch of a demonstration experiment to evaluate the top surface strength of corrugated cardboard cases, as part of a sub-working group established by the Robot Utilization Promotion Working Group under the Robot Revolution & Industrial IoT Initiative (RRI)\*.

\*The Robot Revolution & Industrial IoT Initiative (RRI): Established as a private-sector-led organizational platform to promote the "Robot Revolution" outlined in the "New Robot Strategy" (decided by the Headquarters for Japan's Economic Revitalization on February 10, 2015). The council aims to realize Japan as a global hub for robot innovation, strengthen robot creation capabilities, foster the world's leading robot-utilizing society, and demonstrate global initiative in the new era of robots and IoT.

### 1. Background

Manual cargo handling of corrugated cardboard cases in logistics centers is expected to be automated with robots to improve labor safety and working environments. However, challenges remain, such as difficulties in introducing robotic handling due to the shape and specifications of cardboard cases, and the need to limit robot operating speeds to prevent case damage.

### 2. Overview of the Demonstration Experiment

This experiment will examine methods for evaluating the strength of corrugated cardboard cases suitable for robotic handling and clarify the relationship between the weight of the cases and the peeling of the top surface during robotic handling. The goal is to reduce the damage rate of cases during robotic handling and achieve robot operating speeds that justify investment.

### 3. Activity Plan for Fiscal Year 2025

- Establishment of testing methods to determine the top surface strength of cases
- Measurement of top surface strength for representative case specifications
- Practical verification of the correlation between obtained top surface strength, robotic handling machine capabilities, and case damage rates

Under the corporate philosophy, "to deliver high-quality services that will help make the world a better place for people and nature for generations to come," the LOGISTEED Group strives to achieve sustainable growth by solving issues and creating values through various collaborative innovations.

#### ■ List of Participating Companies

Leader	LOGISTEED, Ltd.
Sub-leader	NX Logistics Research Institute and Consulting, Inc.
Members	IHI Corporation, IHI Logistics & Machinery Corporation, Asahi Soft Drinks Co., Ltd., AEON Co., Ltd., AEON GLOBAL SCM CO., LTD., Kao Corporation, Gifu Plastic Industry Co., Ltd., Kirin Beverage Company, Limited, Suntory Holdings Limited, Nippon Tokan Package Co., Ltd., Mitsubishi Heavy Industries, Ltd., Mujin Japan, Inc., Rengo Co., Ltd.
Observers	Frameworkx, Inc., Ministry of Economy, Trade and Industry (Logistics Policy Planning Office, Commerce and Service Industry Policy Group), Ministry of Economy, Trade and Industry (Robotics Policy Office, Industries Machinery Division, Manufacturing Industries Bureau)



# News Release

(References)

Robot Revolution & Industrial IoT Initiative News Release

<https://www.jmfri.gr.jp/info/8554/> (Japanese Language, External Website)

LOGISTEED Packaging Solutions

<https://www.logisteed.com/en/service/solution/packaging/>

End