Automated Trailer & Container Unloading with
STRETCH™

BostonDynamics

BRING ADVANCED MOBILITY TO UNLOADING OPERATIONS

Stretch is a versatile, mobile robot that unloads floor-loaded trailers and containers for more efficient, safer warehouse operations. As labor shortages have caused challenges in keeping the flow of goods moving, Stretch offers predictability for warehouse operations, ensuring your daily goals will be met even as demand soars for order fulfillment.
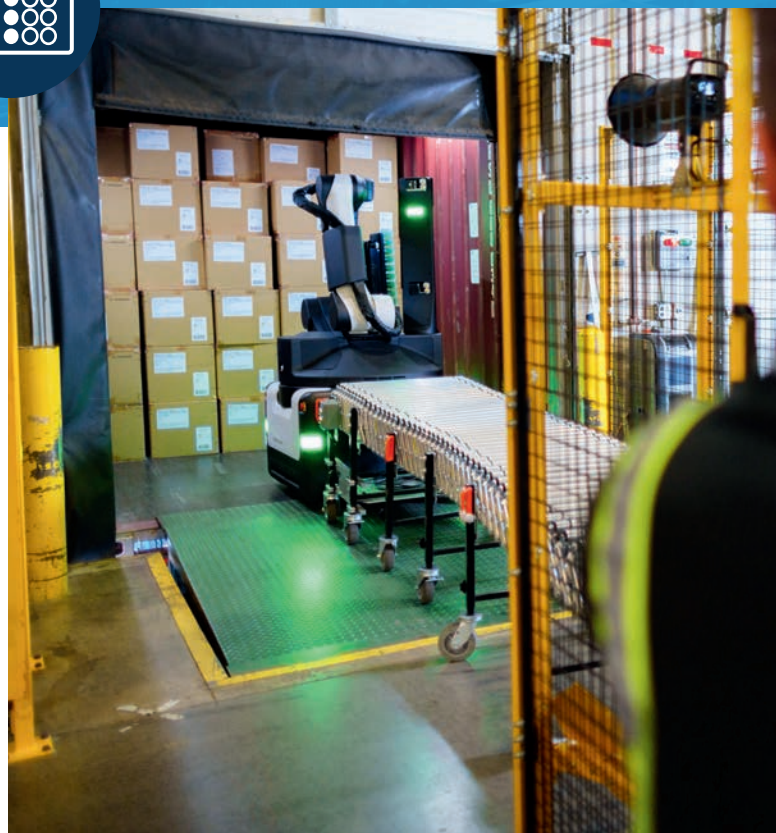
"We're excited to partner with Boston Dynamics to deploy its best-in-class robotics in our warehouses. The Stretch robot addresses complex industry challenges through flexible automation, which we'll be able to replicate and scale regionally and globally."

SALLY MILLER
CIO, DHL Supply Chain North America

Advanced Vision and Powerful Gripper

Stretch works with packages of varying sizes and types, from standard brown to highly graphical. Its vacuum gripper can handle boxes up to 50 pounds. And it works autonomously, even recovering packages that may fall during unloading.

Works Continuously

A single charge powers Stretch through two shifts, keeping the flow of goods moving during especially busy times of year or supplementing labor shortages.
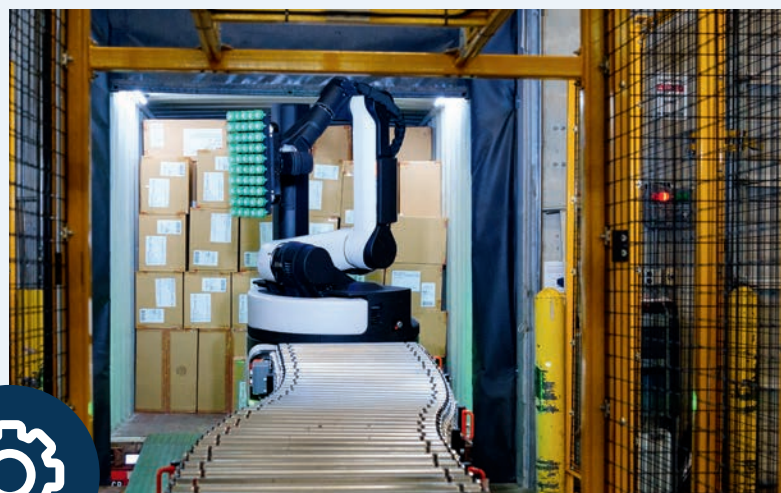
MAERSK

"We want to constantly innovate the warehousing and distribution flow of our inland logistics operations to serve the rising expectations of our B2B and B2C customer base. Boston Dynamics brings the engineering solutions we need to make supply chains operate in new and better ways."

EREZ AGMONI
SVP OF INNOVATION & STRATEGIC GROWTH, MAERSK

Mobile and Compact

With full mobility and a footprint the size of a pallet, Stretch is built to maneuver in and out of trucks and tight spaces in a warehouse.

Fast and Easy to Deploy

Stretch can be installed and ready to work, within existing warehouse infrastructure, in just 5 days or fewer.

NFI

"With Stretch, we will enhance the movement of freight through our facilities while providing a safer environment for our employees."

SID BROWN
CEO, NFI

FAQs

How soon can the robot be up and running?
Stretch can be deployed in 5 days or fewer. Deploying any additional robots would take even less time.

Can Stretch operate continuously if connected to shore power?
Yes, shore power operation is an option.

What is the case picking rate for trailer unloading?
Stretch can unload hundreds of cases per hour at a consistent rate dependent on the configuration of the container and cases.

Will it be difficult for personnel to learn how to operate Stretch?
Stretch operators do not need an engineering or technical background. The ideal operators are employees who understand the inbound process. Training takes just two days.

Does Stretch work only with brown boxes?
Stretch works with standard brown and highly graphical boxes alike.

Can a single operator manage more than one Stretch robot?
Yes, one operator can safely manage multiple robots, drastically increasing inbound productivity.

Is opportunity charging available?
Yes, opportunity charging through a high voltage charging station provides extended operational availability for Stretch.

SPECIFICATIONS

Maximum case weight	50 pounds (23 kg)
Maximum vertical and horizontal reach	10.5 feet (3.2 m) | 6.4 feet (1.95 m)
Footprint	40 x 48 inches (1 x 1.25 m)
Weight	2,866 pounds (1,300 kg)
Suitable trailers for operation	Standard/high-cube containers (20/40 foot) or enclosed cargo trailer
Eligible conveyor types	Flexible accordion and fixed telescopic
Eligible types of cases	Rectangular cardboard boxes with taped or glued flaps; most common case wear and tear is acceptable
Battery life	Lasts for 2 shifts
Eligible case sizes	The minimum length of any surface is 6 inches (15 cm), and the maximum is 36 inches (91 cm)
Required lighting in trailer	None – Stretch's camera system is equipped with onboard lighting to illuminate the environment for its vision system.
Robot pre-operational programming required to handle your boxes	None – Stretch's machine learning-trained vision system uses a pre-trained model that, immediately and upon initial use, allows it to detect most packages. The model improves over time.
Operating environment temperatures	41˚–113˚ F | 5˚–45˚ C

OUR CUSTOMERS

CONTACT INFORMATION

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