



Automated Parcel Induction

Warehouses can be unpredictable, throughput doesn't have to be. Increase facility throughput by taking the variability out of manual parcel induction operations.

Global parcel volume grew 54% between 2019 and 2021, and it is expected to grow an additional 42% by 2028¹. Automation of parcel induction enables consistency of operations that aim to meet this growing demand.

Automated Parcel Induction

At Plus One Robotics, we believe in employing robots in situations where they provide the greatest impact, such as in the monotonous act of singulating parcels continuously over multiple shifts, every day of the week. Similarly, we believe that humans previously assigned to these types of roles should have the opportunity to contribute to their companies in higher-value, more stimulating ways for instance, upskilling into a robot operator role.

Plus One's automated parcel induction solution leverages the data from over one billion real world picks across the globe to support your operational needs from day one, without the need for upfront AI model training. When exceptions arise (and they will), Plus One uses the image data to continually hone its fully autonomous operation – it just keeps getting better.

Harnessing our Plus One Robotics' PickOne™ vision software, robots can grasp single parcels from a cluster and securely place them on an outfeed for downstream sortation. Coupled with Yonder™, Plus One's human-in-the-loop remote intervention software, uptime is maximized by keeping the need for local interventions to a minimum. These solutions can be leveraged with a variety of infeed and outfeed configurations, including:

- Induct to Cross-Belt Sorter
- Induct to Tray Sorter
- Induct to Linear Sorter
- Induct to AMR

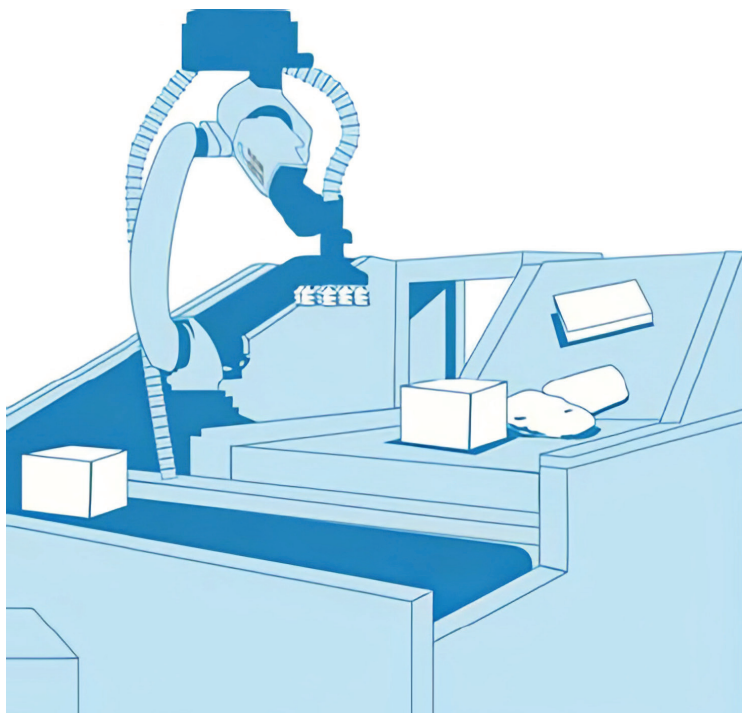
¹Pitney Bowes Parcel Shipping Index

Features

- Intelligent Gripping Strategy
- AI-Based Object
- Detection
- Item Classification
- Motion Detection
- Exception Handling
- Pick Zone Fill Ratio
- Place Verification
- Double Recovery
- Streamlined Commissioning
- Human-in-the-Loop

Customer Win

After deploying Plus One's automated parcel induction solution, this Fortune 1000 3PL increased facility throughput by 13%, grew peak season volume by 21% and began scaling the robot application throughout their North American network.



What to Expect

Get started with a site evaluation by one of Plus One's Solutions Architects. They will analyze your site and either recommend an existing automated parcel induction layout or propose design adjustments to your footprint and throughput requirements. Once commissioned, Plus One's induction system will image the parcel infeed, quickly determine the optimal parcel to singulate and transfer the parcel to the outfeed, where it will be double-checked for suitability to induct.

The Application Includes:

PickOne™ Vision Software, Gripper, Robot Arm, Vacuum System, Lighting, Vision Sensors, HMI, Conveyance, Safety

Specs

Throughput	up to 1500+ PPH
Max. Parcel Weight	15 lb. (6.8 kg)
Max. Parcel Length	27 in. (69 cm)
Max. Parcel Width	19 in. (48 cm)
Max. Parcel Height	17 in. (43 cm)
Power Requirements	480VAC, 3 Phase, 60Hz 400VAC, 3 Phase, 60Hz
Pneumatic Requirements	80 psi, 5 scfm (5.5 bar, 0.15 m³/min)

Supported Item Types

Polybags (clear/opaque), Boxes, Shipping Envelopes, Padded Mailers, Paper Mailers



 **PLUS ONE
ROBOTICS**
Robots Work. People rule.

Plus One Robotics provides the fastest and most reliable parcel handling robotics platform in the world. Founded in 2016 by computer vision and robotics industry experts, Plus One's intelligent solutions combine computer vision, AI, and supervised autonomy to pick parcels for leading logistics and e-commerce organizations in the Global 100.