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Solution Portfolio

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Conveyor Systems

Save time when transporting items

Conveyor systems minimize human error, lower workplace risks and reduce labor costs.
A conveyor system allows for movement of objects that are too heavy or too bulky for humans to carry by hand.

Depending on the product and the process requirements, there are a variety of the models. From belt to roller, vertical or horizontal, conveyor systems are a simple way to optimize transporting process.

Lodamaster's Conveying Solutions

Lodamaster offers a variety of conveyor types, modular or tailored to your business needs

Belt Conveyors

- economical powered conveying
- setup for long distance transport of a variety of goods
- traverses horizontally, inclines or declines to different levels

Roller Conveyors

- Non-Powered as well as powered, cost effective conveying
- support moderate to heavy loads
- traverses horizontally, inclines or declines to different levels

Spiral Conveyors

- minimize footprint
- easy to install
- boost throughput by conveying products in a continuous flow

Vertical Conveyors

- minimize footprint
- eliminate the deformation risk by carrying products in a upright position
- allow operation at multiple mezzanine levels

Curve Conveyors

- designed to conveyance in changing direction
- eliminate extraneous conveyor length and handling time

Flex Conveyors

- designed to be added existing conveyor system
- eliminate time and resource inefficiencies caused the gap between constantly installed conveyor and truck

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Telescopic Conveyor

Get cargo in and out faster, easier and safer

Telescopic conveyors are designed to help load and unload loose goods from trailers or containers into the warehouse, often to an automated intralogistic system.

Lodamaster manufactures a full portfolio of telescopic conveyors in length and width for both belt and gravity roller types, as well as optional accessories that specialise on different applications.

Solution Strenghts

- While 2 people (un)load a truck manually in 4 hours, only one person can do it **in 30 minutes or less** with a Lodamaster Telescopic Conveyor
- Certificated by TÜV for most advanced safety features.
- The ROI can be **less than two years**
- Can work **24/7** with minimal supervision
- Cargos are evenly distributed and provide you with up to **80% occupancy rate**
- Reduces the risk of accidents to personnel and damage to goods

Telescopic conveyors are divided into two according to their working principle

Telescopic Belt Conveyor

Lodamaster telescopic belt conveyors are designed to minimize the need for operators to carry products manually in the (un)loading operations.
The extension and retraction are fully motor-driven, with a fast response to operator actions. The conveyor allows operators to move the drop-off and take-away points as required.
It can also switch between indexing mode and fast transport for buffering functionality.

Telescopic Gravity Roller Conveyor

Lodamaster telescopic gravity roller conveyor is designed for loading without the need for an electrical power. It utilizes gravity from an elevated loading bay or dock. The working height is adjusted with manually operated screw jacks to set the correct gravity drop.
Compered to the belt model, Gravity loaders use less power as the conveying is done by the gravity while power is used only for the booms moving in and out.

Lodamaster offers a large variety of optional functions to customize the telescopic conveyor for your needs

Standard Features

- **Front control panel**
- **Front safety switch**
- **PLC controls**
- **Belt Override Switch**
- **Indexing sensor at the front**
- **High support legs**
- **Front led light**
- **Pop-up roller at the front**
- **50kg/m load capacity**
- **Maintenance hatch**
- **Maintenance windows**
- **Underguards**

Optional Features

- **Front led bridge**
- **Mobile on wheels / rails**
- **Hydraulic tilt**
- **Foldable operator platform**
- **Raised belt**
- **Tilting front end**
- **No-go bar**
- **Side pan / Handrail**
- **Extra start-stop buttons**
- **Over-length detection**
- **Non-std voltage (230-240 V single phase)**
- **Reversable belt control**
- **Store-feed-run function**

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Sorter Systems

Increase throughput and accuracy in sorting operations

As the number of products that need to be shipped daily increases, manual sorting shows its limitations. A proven solution to improve sorting efficiency is the implementation of an automated sorter. This allows businesses to increase their throughput and accuracy while relieving operators from monotonous tasks.
Lodamaster works with leader sorter suppliers in addition to its in-house manufacture capacity.
All of the sorters Lodamaster integrates are controlled by its in-house software system.

Lodamaster's Sorting Solutions

Lodamaster offers a variety of sorter types, modular or tailored to your business needs

Crossbelt Sorters

Capacity: 20.000 items / hour
Product range: Cartons, packages, letters, trays, bundles, polybags, packaged food, catalog goods, padded envelopes, multimedia, clothing

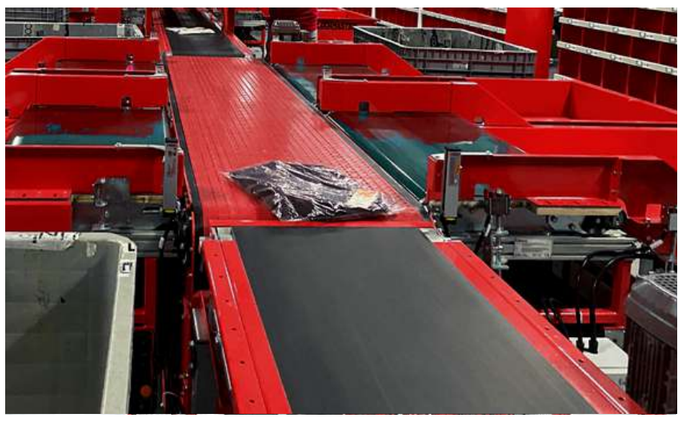
Shoe Sorters

Capacity: 10.000 items / hour
Product range: Cartons, packages, letters, trays, bundles, polybags, packaged food, catalog goods, padded envelopes, multimedia, clothing

Divert(Switch) Sorters

Capacity: 6.000 items / hour
Product range: Parcels, envelopes, packages, fragile items, crates, totes

Roll-on Sorters



Capacity: 2.000 items / hour
Product range: Multimedia, envolopes, polybags, small accessories, clothing

Tray Sorters

Vertical Tilt Tray Sorters

Capacity: 7.000 items / hour
Product range: Envelopes, parcels, e-commerce, clothing, poly-wrapped items, packages, small accessories, fragile items

Slide Tray Sorters

Capacity: 12.000 items / hour
Product range: Packed garments, multimedia, post parcels, electronics

Split Tray Sorters

Capacity: 16.000 items / hour
Product range: Envelopes, e-commerce, clothing, packages, accessories

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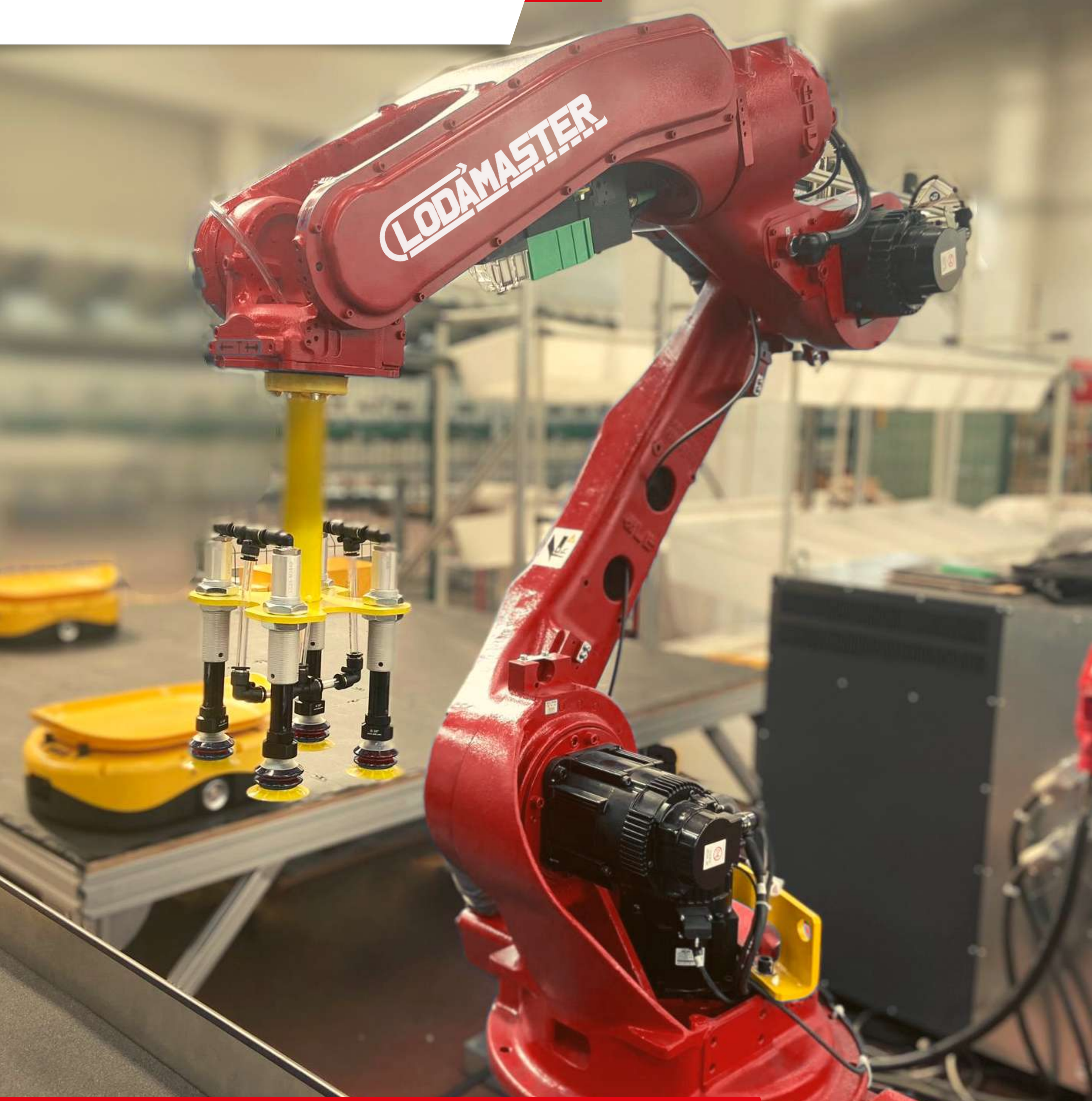


Visual Guided Robots

Visual Guidance for Robotics

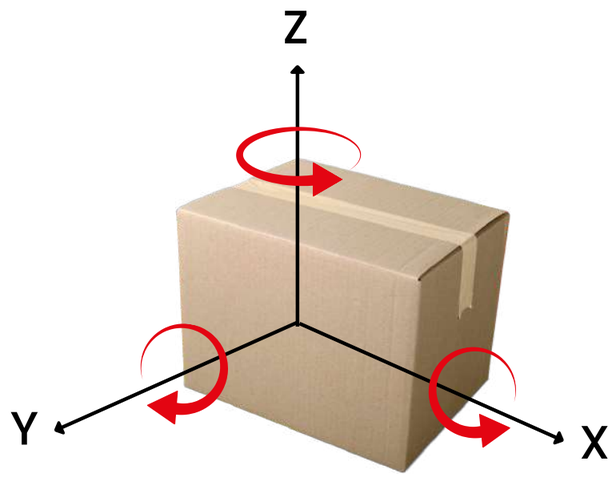
Regular robots are programmed to always pick and place the item in the same location. When the location or orientation of the object varies they can not pick the object as originally programmed.

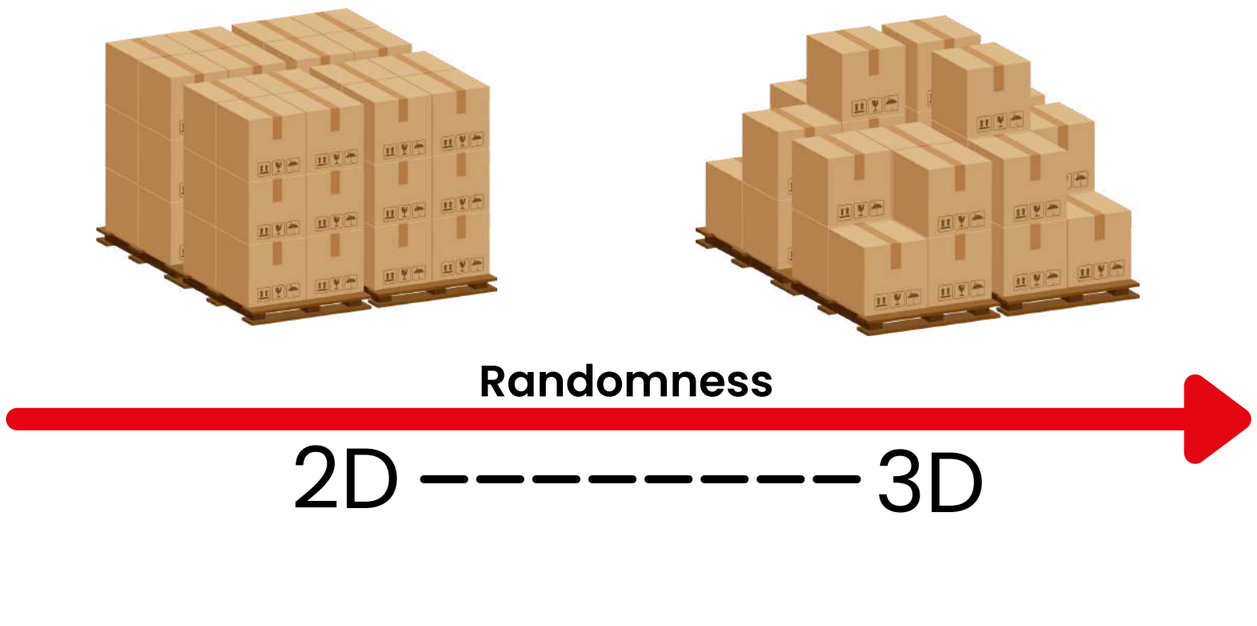
Visual guidance provides the reference points (X-Y-Z coordinates) to robots to accurately position the item and tell the robot where it is located.. It includes all the hardware, software, cameras, lenses and lighting required to capture and process images.

Visual guided robots enables flexible manufacturing and production lines to readily accommodate product changes.

3D Recognition for Robotics

3D vision expands the capacity of vision to accommodate more randomness. These solutions provide Rx, Ry, and Rz coordinates in addition to X, Y, Z to position objects in different planes.
This allows the subject to tilt and the working distance between the camera and the subject may vary.



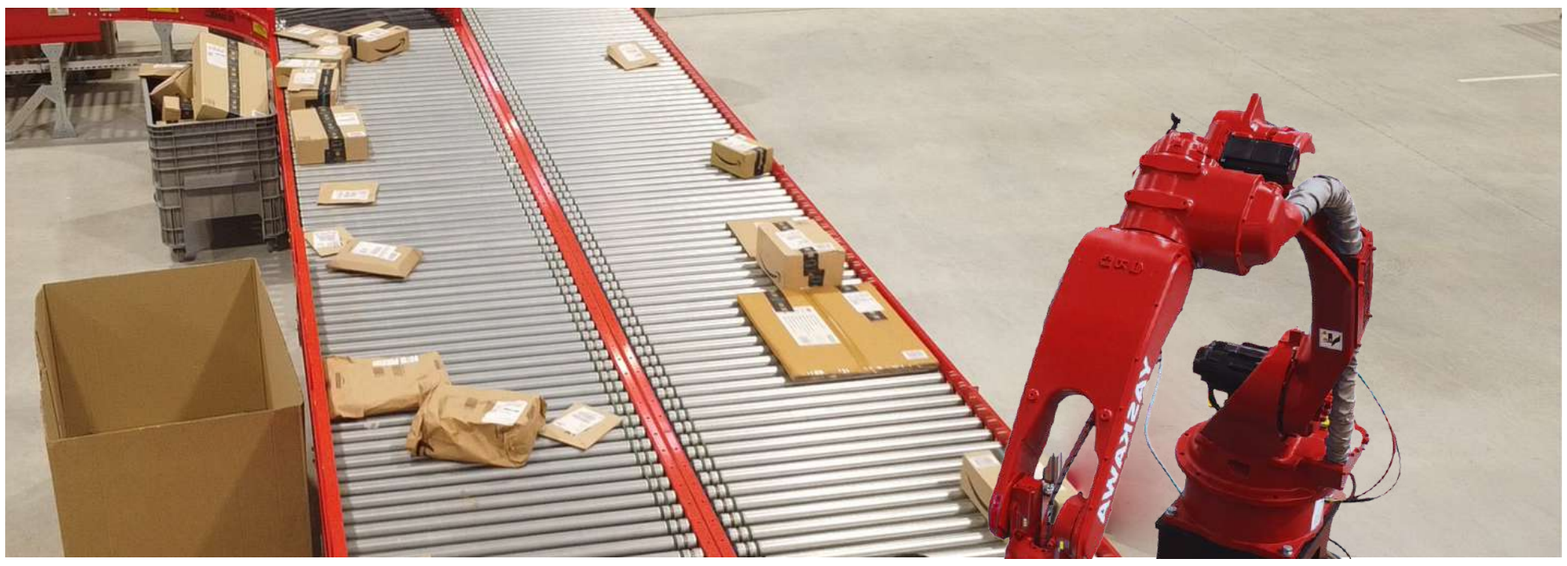


Grippers

Lodamaster offers VGRs with the best suited grippers to your applications

Grippers are like human hands; they sit at the end of the robotic arm and allow you to combine the strength of one arm with a hand's ability to grasp and release parts. With their help, robots can pick, transport, position, process, sort, stack and store a wide variety of goods and components.

Two different operations, such as stacking large boxes to handling tiny, delicate electronic components, require different types of grippers. There are many different gripper types for different applications: Two- and three-fingered grippers, claw-shaped grippers, mechanical gripper types, large suction cup grippers, clamps that look like air-filled bags etc.



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Pick(Put) to Light

Pick / Put to Light Technology (PTL)

PTL systems increase productivity, efficiency, and order accuracy in order fulfillment operations

Pick(put) to light systems are simple and efficient technologies that boost order fulfillment performance.

Traditional order fulfillment methods are highest cost sources in warehouse operations. PTL systems enable cost reduction and relief for employees by **reducing unnecessary walking, shortenening fulfillment time, increase order accuracy.**

Improved Efficiency : Pick(put) to light systems are often tailored to your current work zones, which help to reduce unnecessary walking by employees.If an order has to travel through more than one work zone, the system helps reduce idle time by tracking the order.
Additionally, they are paperless systems and save time eliminating the step of operators leafing through paper-based records.

Improved Fulfillment Accuracy ：In terms of customer service, the biggest benefit of pick(put) to light systems is fewer fulfillment errors. Pick to light helps improve fulfillment performance, resulting in happier end customers while helping keep stock information accurately.

Ease of Use: Training operators on traditional order fulfillment methods can take hours or more, depending on the size and complexity of your warehouse. With an effective pick(put) to light system, you can reduce the workout to 30-45 minutes.

Working Principle

Step 1: Operators scan item barcodes.

Step 2: The system's display lights up to guide the operator to the indicated storage location.

Step 3: The operator places the item(s) in the location and presses a button to confirm the picking task.

What is the Difference Between Pick to Light and Put to Light?

Put to light is exactly the inverse version of a pick to light system:
As simply the reverse of the flow, a put to light system guides operators to organize incoming goods in a retail store, grouped as a customer order, or any other organizational method.

Both pick-to-light and put-to-light systems work best at high intensities. As units are moved more frequently, they provide a better return on investment in high-density areas, the clear lighting system streamlines the operator to identify the correct item.

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ROBOS

Authorized Partner

Automated Guided Vehicles

Automated Guided Vehicles (AGVs)

Automated guided vehicles are unmanned systems designed to meet material handling needs by autonomously traveling throughout a facility without a driver.
They can be used to handle all types of loads, reduce costs and increase productivity.

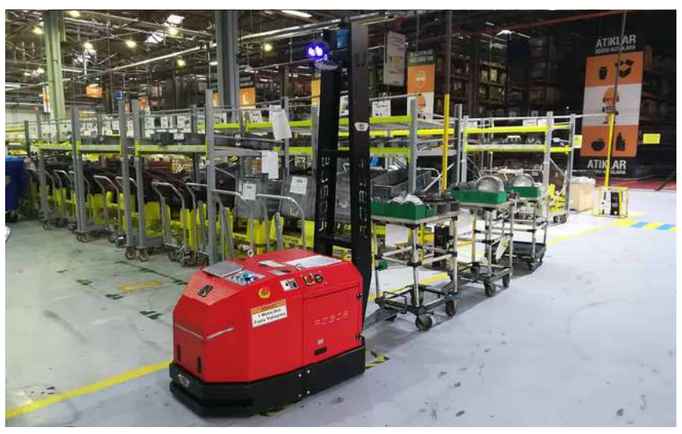
AGVs are one of the main systems used to minimize industrial accidents due to human factor.

You Can Control Whole System From a Single Location

Wireless modules and central control software of enables you to centrally manage all AGVs in your factory. With this system, AGVs pass at intersections and loading and unloading areas without overlaping each other.
Using the central control computer, you can check the positions of AGVs, fault and battery conditions, cycle times and much more.

Robos Automated Guided Vehicles

RBS-T Tugger



The most economical and flexible AGV
RBS-T is the most economical way to automate your material handling operations.

RBS-P Pin Hook

For those who want both automation and flexibility
RBS-P automates (un)loading operations without requiring additional conveyor investment.

RBS-TR Transpalet

Ideal for carrying your pallets on the ground.
RBS-TR is designed to carry loads that stand on the factory floor.

RBS-C Conveyor

Ideal for connecting two points!
RBS-C was created for material handling between two conveyors in your factory.

RBS-F Forklift

Most Advanced For Those Who Want AGV
RBS-F can pick up palletized loads from the ground or any platform whose height does not exceed 1 meter and drop them wherever you wish.

Special Designs

When Standard AGVs Are Not Enough ...

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LIBIAO ROBOTICS

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Robotic Sorting

Robotic Sorting

Libiao robotic sorting systems performs much like a tilt tray or crossbelt sorter without a fixed track, allowing independent robots to travel freely to any divert or induction station along the optimal path.

The system is highly flexible and can increase or decrease robots as needed, allowing the layout of more sorting chutes, which can cope with very high traffic sorting demands.

Working Principle

Step 1: A feeder loads the item on the sorting robot.

Step 2: The robot takes off towards its predetermined destination.

Step 3: The robot rolls the parcel into a chute or into a 3D sorting robot

Step 4: The robot returns to the feeding point to deliver another item to its destination.

You only need a few weeks and a flat surface to set up your robotic sorting center!

Solution Strengths

- The system can increase or decrease the number of robots as required, quickly improving the sorting efficiency during peak season.
- The system can be designed as a single layer, double layer, or multi-layer according to space and requirements.
- The system construction period usually is only **3-5 weeks**, while the construction period of traditional the cross-belt system is 6-7 months.
- The space occupied by the system is greatly reduced by less than **1/2** of other sorting methods.
- Algorithm promotes the sorting efficiency by **2-3 times** manual sorting.
- Labor is reduced by about **50%-65%**, saving labor cost and reducing labor intensity**.**
- The overall operating costs of enterprises are reduced, including equipment investment, equipment depreciation, management, site, labor, energy consumption, and other costs.
- The system can be put into operation quickly, with a short ROI period generally **less than 3 years.**
- The robots keep sorting despite power shortages, when one robot get defective, the remaining robots continue working and the operation does not stop unlike classical sorters.

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joloda hydraroll

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Loading & Unloading

(Un)loading Solutions

We offer various (un)loading systems that cut the time gap between unloading a truck and delivering materials to the production starting point. We integrate docking stations into the process flow instead of treating them as a separate operation. Typically, the forklift process of loading a full trailer will be around 30-45 minutes. Joloda Hydraroll's automated loading systems can do it in under 5 minutes.

A complete (un)loading operation requires one or more automatic (un)loading docks docks and a dedicated system trailer. Once connected to an existing conveyor infrastructure or integrated with AGVs, the entire loading procedure, also known as 100% full end-of-line automation, can be de-manned.

Joloda Hydraroll's automated loading systems enables you to load a full trailer in minutes!

The Benefits of Sustainable Logistics

Automated loading can significantly reduce the amount of carbondioxide your business generates and help you to operate in an eco-friendly way. These solutions, by removing the need for forklift trucks lower your emissions; and, depending on how you power your forklift trucks, reduces your own fuel consumption (and costs). Automation also reduces product damage, which translates into less waste.

Types of Manual Loading Solutions

Skate & Track

designed to easily shift heavy loads using a set of manually operated skates. It's ideal for pallets, slip sheets, drums, newsprint rolls, heavy and large machinery

Rollertrack

designed to easily shift air cargo pallets and all other palletized loads. We offers roller track solutions for vans, trucks & trailers and warehouse floors.

Container Loading

designed to load cargo into a container or unload it from the container more easily. It can handle loads up to 27 tonnes and 13.2 metres into the container.

Types of Automated Loading Solutions

Moving Floor

designed for shifting any palletised, non-palletised, or crate-based goods. It's ideal for a high volume logistics shuttle case with a small fleet of dedicated trailers.

Slipchain Pallet

combining a heavy duty, pneumatically activated rise and fall chain with a Rollertrack system for trailer and dock, it's ideal for loading and unloading palletised goods.

Trailerskate

designed to automate loading for medium to long shuttle hauls. With long skates to perform (un)loading It has no technology expect for four simple tracks on the floor .

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Pallet Handling Automation

Reduce energy consumption when transporting items

Pallets are heavy and energy-intensive transport structures, but they are an essential element in most operations such as storage and transport throughout the facility, connecting incoming goods, production, packing, and shipping etc.

Lodamaster offers you various pallet handling solutions that maximize throughput and storage density while reducing energy consumption, labor cost and work hazards.

Pallet Handling Automation

Automated Pallet Elevator

Automated pallet elevators are lifts fitted with either heavy-duty roller, chain or belt conveyor to move pallets or large loads between different elevations or floors.

They work safely and consume minimal energy by working with calculated counter weight. By means of special bearings used in the elevators, vertical movement is carried out without vibration.

Pallet Conveyor

Pallet conveyors are designed for moving and handling of pallets and other heavy loads with an even bearing surface.

Helping to increase efficiency and flexibility in handling and maneuvering heavy loads, pallet conveyors also help reduce overall operating costs and offer a more ergonomic process that eliminates heavy lifting for operators.

Lodamaster's engineers ensure that the best solution is offered you, whether it is a stand-alone conveyor part or part of a fully integrated automated pallet handling system.

Pallet Lift

The pallet Lift is an affordable and efficient solution used for an easy transfer of pallets between ground level and conveyor lines, in systems where conveyor lines cannot be placed directly on the floor.

It can be easily integrated into any environment without additional engineering and is easy to maintain.

Also a pallet lift comes with a large lifting platform; this means that it can handle products of different formats in addition to euro pallets.

Pallet Transfer Stations

Pallet transfer stations are designed to transfer products packed in cases, drums, barrels, bags and buckets from one pallet to another in both receiving and shipping applications.

Pallet transfer stations optimize your facility’s forklift productivity, prevents injuries, reduces labor and reduces shipping costs.