
Cobot Team

ZEBRA

# Revolutionize Work Productivity with Cobot Team and Zebra Robotics Automation Transformative Solutions

Optimize productivity, streamline workflows, and achieve peak performance with our innovative robotic solutions

Zebra
**Robotics Automation**™

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# Deploy Automation in Hours

Cobot Team approaches automation and robotics from a workforce solutions perspective, with the intent to help fill labor shortages and skill gaps, while allowing companies to better utilize and upskill their current workforce.

Established in 2018, we have been focused on servicing clients across the United States with automation solutions. We provide our clients with the best of service and the best of solutions, given our unique understanding of workforce challenges, and extensive manufacturing and distribution client experiences.

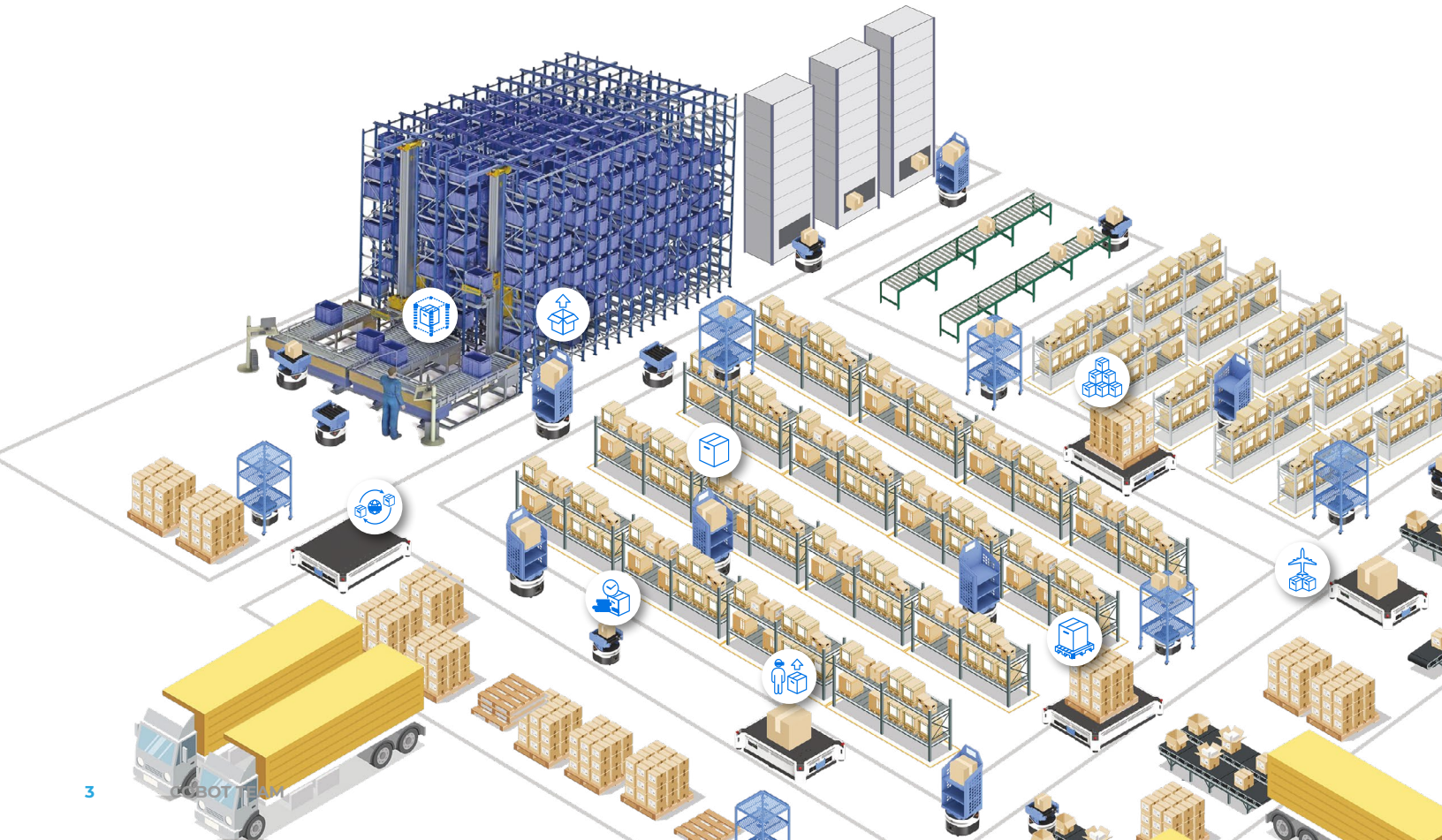
Together with Zebra Robotics Automation, we deliver innovative and transformative Autonomous Mobile Robots (AMR) solutions, revolutionizing work productivity like never before.

**Let us show you how.**

CE Zebra AMRs carry a CE mark and meet regulatory requirements for product safety.

ANSI/RIA R15.08 Zebra AMRs conform with R15.08 safety standards published by the RIA (Robotics Industry Association)

WARNING: This product uses components which emit invisible laser radiation. Incorrect use or observing the safety laser scanner through optical instruments (such as magnifying glasses, lenses, telescopes) may be hazardous for the eyes.



# Fetch Cloud Robotics Platform By Zebra Robotics Automation

The Fetch Cloud Robotics Platform integrates a comprehensive suite of software and services with the industry's broadest range of AMRs to deliver a powerful combination of on-demand warehouse automation, next-generation data collection, and unified controls and data across your entire intralogistics ecosystem.

**Fetch Autonomous Mobile Robots (AMRs)**

Fetch has the broadest range of AMRs to find, track, and move just about anything. With on-demand automation, Fetch robots can be deployed into almost any facility in just hours, with no additional warehouse or IT infrastructure changes.

**FetchCore Enterprise Software and Services**

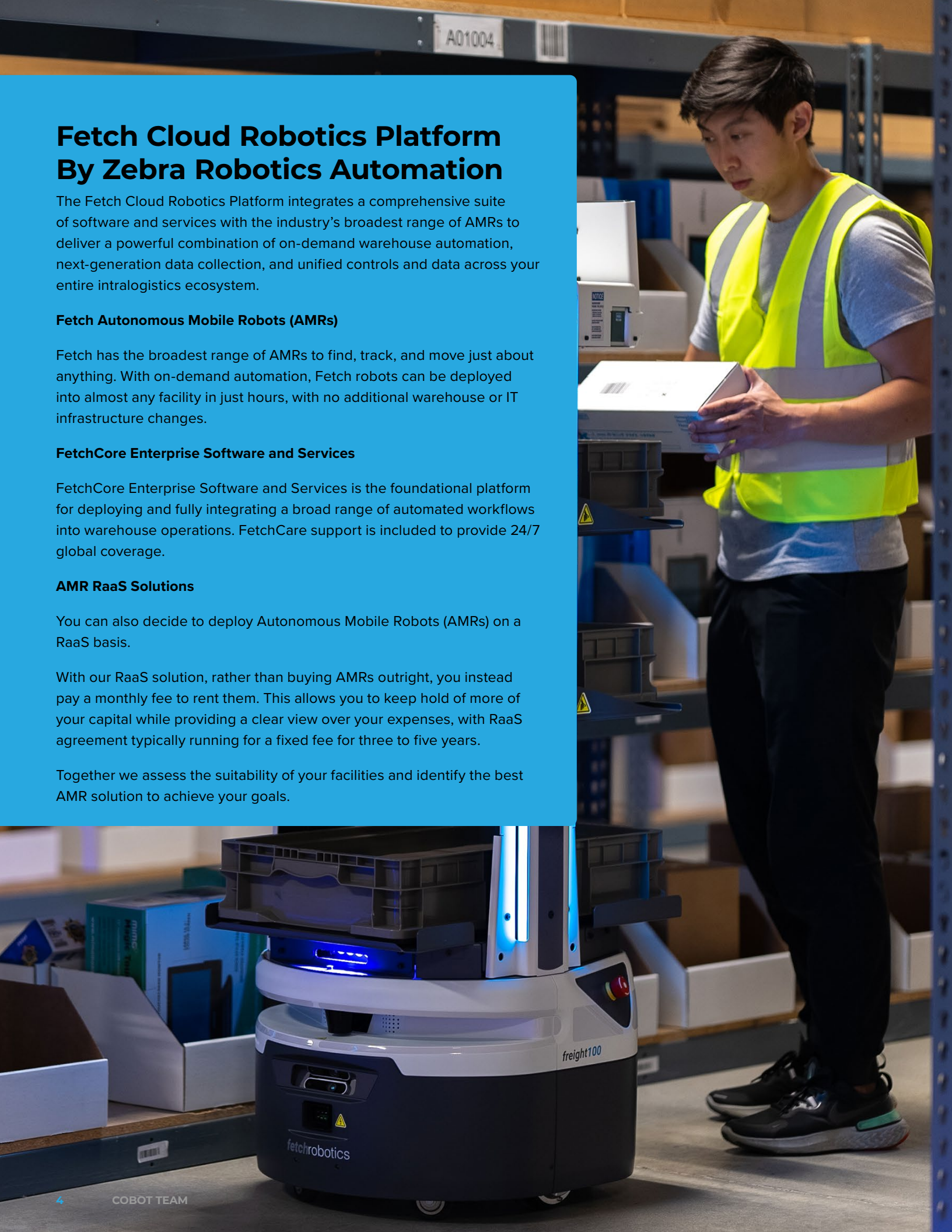
FetchCore Enterprise Software and Services is the foundational platform for deploying and fully integrating a broad range of automated workflows into warehouse operations. FetchCare support is included to provide 24/7 global coverage.

**AMR RaaS Solutions**

You can also decide to deploy Autonomous Mobile Robots (AMRs) on a RaaS basis.

With our RaaS solution, rather than buying AMRs outright, you instead pay a monthly fee to rent them. This allows you to keep hold of more of your capital while providing a clear view over your expenses, with RaaS agreement typically running for a fixed fee for three to five years.

Together we assess the suitability of your facilities and identify the best AMR solution to achieve your goals.



# Cobot Team and Zebra Robotics Automation Portfolio


**CartConnect100**
Automatically pick up and drop off carts up to 125 lb (57 kg)

**HMIShelf**
Transport packages, totes, and bins up to 172 lb (78 kg)

**PalletTransport1500**
Move pallets up to 3,300 lbs (1,500 kg) throughout the facility

**Freight100 OEM Base**
Build your own customized automated solution on a proven platform

**RollerTop**
Integrate with current conveyor infrastructure

## Intelligent Solutions for Distribution, Warehouse, and Manufacturing

- Each/Case/ Pallet Picking
- JIT and Line Replenishment
- Receiving and Putaway
- ASRS / VLM Induction and Delivery
- Staging and Consolidation
- Cross-Docking and Long Haul
- Raw Material and WIP Movements
- Returns Disposition
- Packaging and Material Recycling
- Cycle Counting and Physical Inventory

# Increasing Manufacturing Productivity With AMRs

## The Manufacturing Industry Is Entering a Time of Sea Change

Chronic labor shortages have plagued the manufacturing industry for years with no real end in sight. COVID-19 exacerbated this problem in the short term by reducing the availability of the existing workforce, and also in the long term as manufacturers need to build more resilience and flexibility into their operations by reshoring their manufacturing operations and their corresponding supply chain.

Automation, and specifically AMRs, can assist in the implementation of lean manufacturing, especially by helping remove waste from manufacturing processes. While the introduction of AMRs in isolation can assist with lean manufacturing, the true value comes from introducing AMRs as part of Smart Factory and Industry 4.0 initiatives where sensors, machines, AMRs, and manufacturing systems will be connected and can interact with one another using standard internet-based protocols. This enables production processes to be optimized and leverage fully integrated AMRs, helping to create flow between processes, remove non-value-added activities, and do this through pull-based integration with manufacturing systems. As a result, today's insular manufacturing cells will be replaced by fully automated, integrated production lines, enabling manufacturers to produce higher quality products at reduced costs.

# Uncompromising Safety

## The Only AMR Solution Provider That Conforms to CE and RIA R15.08

After over four years of hard work and input from hundreds of industry experts, the Robotics Industry Association (RIA) has published the new American National Standard for safety requirements for industrial mobile robots, R15.08, an important step toward common guidelines in the growing sector of mobile robotics.

To ensure a facility is using the safest equipment, you should choose AMRs that meet all aspects of the new R15.08 safety standard, meaning that all hardware (bases and modular tops) and software comply. While many AMR manufacturers today comply with the safety standard for the base robot, most have yet to convert the entire system, ensuring modular tops meet the standard as well. Both need to conform to the standard to truly address safety within the facility and allow full collaboration with humans.

At Fetch Robotics, work has diligently been carried out to ensure our entire commercial AMR product line conforms not only with the new R15.08 standard and with all the requirements for CE marking as well, so that you can confidently deploy on-demand automation knowing your workforce and facility will be safe and in compliance with the latest regulations.

# RollerTop

## Flexible Automation Addition to Fixed Conveyors

### Key Benefits

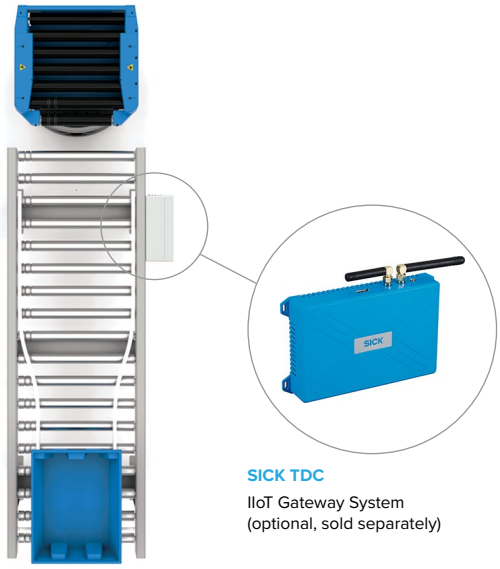
- Automate loading and unloading of totes and bins from conveyors or ASRSs
- Flexibly extend existing conveyor workflows
- Automatically trigger induction or deduction via Fetch Robotics' FetchCore software
- Integrate existing conveyor controls with FetchCore using optional IIoT smart gateway

## Coexist with Current Conveyor Infrastructure

Conveyor systems have dramatically increased industrial efficiency for many years. However, these fixed assets are hard to adapt to today's ever-changing material transport requirements. Fetch Robotics' RollerTop solution brings adaptability and increased levels of automation in these conveyor environments.

## SICK TDC Smart Gateway

The SICK Telematic Data Collector (TDC) (optional, sold separately) is a networked industrial I/O device that serves as a bridge between the FetchCore and other industrial equipment such as conveyors, doors, and air showers. Automate handoffs between RollerTop robots and active powered conveyors by connecting a SICK TDC to any conveyor controller.




**SICK TDC**
IIoT Gateway System
(optional, sold separately)

| Specifications | RollerTop | RollerTop Guide |
|---|---|---|
| **Weight** | 186.2 lb (84.5 kg)<br>Add'l weight with riser installed:<br>Riser 1: 5.5 lb (2.5 kg)<br>Riser 2: 6.7 lb (3.0 kg) | 201.8 lb (91.5 kg)<br>Add'l weight with riser installed:<br>Riser 1: 5.5 lb (2.5 kg)<br>Riser 2: 6.7 lb (3.0 kg) |
| **Supported Conveyor Heights** | 18.4 in–36.6 in (46.5 cm – 92.9 cm) | 18 in (45.7 cm) or 22.75 in–30 in (76.3 cm) in 0.25 in (0.63 cm) increments |
| **Maximum Payload** | Up to 176 lb (80 kg)<br>(depends on configuration) | Up to 160 lb (73 kg)<br>(depends on configuration) |
| **Base Footprint** | 23.6 in (59.9 cm) length, 21.7 in (55.1 cm) width | 23.6 in (59.9 cm) length, 21.7 in (55.1 cm) width |
| **Cargo Dimensions** | 20.6 in–32.7 in (52.3 cm – 83.0 cm)<br>(depends on riser height) | 48.8 in–60.9 in (124.0 cm–154.7 cm)<br>(depends on riser height and accessory height) |
| **Maximum Speed** | 3.9 mph (1.75 m/s) | 3.9 mph (1.75 m/s) |
| **Turning Radius** | Turn in place | Turn in place |
| **Nominal Continuous Runtime** | ~9 hrs | ~9 hrs |
| **Environment** | Indoors, ADA-compliant | Indoors, ADA-compliant |
| **Charging** | Autonomous docking | Autonomous docking |
| **Charge Time** | 3 hrs to 90% | 3 hrs to 90% |
| **2D Laser Sensor** | SICK, 82 ft (25 m), 220 degrees | SICK, 82 ft (25 m), 220 degrees |
| **3D Camera** | Yes (x2) | Yes (x2) |

# Key Workflows

Order Picking

Assembly and QA

End of Line Handling

ASRS Induction

Rush Orders

# CartConnect100

## The Industry's First Rolling Cart Autonomous Mobile Robot Solution

### Key Benefits

- True collaborative AMR solution that integrates into existing manual cart workflows
- Flexible FetchCart options support a wide range of workflows
- Maximum robot utilization by decoupling robots from carts
- Simple setup and control for associates through handheld devices or automation through fully configured schedules
- Recognized for safety (CE mark)

## Warehouse Carts 2.0

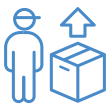
The CartConnect AMR system features an advanced mobile robot that can autonomously pick up and drop off FetchCarts to any location within your facility. FetchCarts are available in three sizes – Standard, Tall, and a Flexible cart Base option that allows you to customize the cart to suit your specific payload.

| Specifications | CartConnect | FetchCart Base | FetchCart | FetchCart Tall* |
|---|---|---|---|---|
| **Weight** | 163 lb (74 kg) | 85 lb (38.5 kg) | 75 lb (34 kg) | 85 lb (38.5 kg) |
| **Height** | 19.5 in (49.6 cm) | 65 in (165 cm) | 55.1 in (140 cm) | 65 in (165 cm) |
| **Base Footprint** | 20.7 in (52.7 cm) width, 22.6 in (57.3 cm) diameter | 32.7 in (83 cm) width, 32.7 in (83 cm) length | 32.7 in (83 cm) width, 32.7 in (83 cm) length | 32.7 in (83 cm) width, 32.7 in (83 cm) length |
| **Shelf Width** | — | 32.7 in (83 cm) | 32.7 in (83 cm) | 32.7 in (83 cm) |
| **Shelf Depth** | — | 32.7 in (83 cm) | 32.7 in (83 cm) | 32.7 in (83 cm) |
| **Max Payload Weight** | — | Up to 115 lb (52.5 kg) | Up to 125 lb (57 kg) | Up to 115 lb (52.5 kg) |
| **Max Speed** | 3.4 mph (1.5 m/s) | — | — | — |
| **Turning Radius** | Turn in place | Turn in place | Turn in place | Turn in place |
| **Continuous Runtime** | ~9 hrs | — | — | — |
| **Environment** | Indoor | Indoor | Indoor | Indoor |
| **Charging** | Autonomous docking | — | — | — |
| **Charge Time** | 3 hrs to 90% | — | — | — |
| **2D Laser Sensor** | 82 ft (25 m), 220 degrees (x1) | — | — | — |
| **3D Camera** | Yes (x2) | — | — | — |

* Requires a risk assessment

# Key Workflows

Case Picking



Replenishment / Putaway

Raw Material Delivery

ASRS Induction

E-Commerce Fulfillment

Staging / Consolidation

# HMIShelf

## All-in-One Transport and Operator Interface

### Key Benefits

- Quickest deployment solution
- Set up and use in hours, redeploy easily
- Ideal for small and medium payloads
- Configurable shelving for various bin, tote, and package sizes
- Reduce associate travel time and increase productivity in low dwell time and high volume environments
- Simple operation with built-in, easily configured touchscreen

## Transport for Packages, Totes, and Bins

HMIShelf robots set the standard for commercial-ready AMRs transporting material in busy warehouse and manufacturing environments. The most advanced collaborative AMRs, like the Fetch HMIShelf robots, have the ability to plan optimal point-to-point travel while navigating around obstacles. HMIShelf robots have numerous additional enhancements to safely avoid moving obstacles such as forklifts and carts. Integrated touchscreens and adjustable shelving make HMIShelf robots an easy and flexible way to offload material transport tasks.

| Specifications | HMIShelf |
|---|---|
| **Weight** | 198.5 lb (90 kg) |
| **Height** | 59.7 in (151.6 cm) |
| **Base Footprint** | 22.6 in (57.3 cm) diameter |
| **Shelf Width** | 20.5 in (52.2 cm) |
| **Shelf Depth** | 16.5 in (42.1 cm) |
| **Maximum Payload Weight** | 172 lb (78 kg) |
| **Maximum Payload Height** | 30.0 in (76.3 cm) |
| **Maximum Speed** | 3.4 mph (1.5 m/s) |
| **Turning Radius** | Turn in place |
| **Nominal Continuous Runtime** | ~9 hrs |
| **Environment** | Indoor |
| **Charging** | Autonomous docking |
| **Charge Time** | 3 hrs to 90% |
| **2D Laser Sensor** | 82 ft (25 m), 220 degrees (x1) |
| **3D Camera** | Yes (x2) |


# Key Workflows

Order Picking

Assembly and QA

ASRS Induction

Rush Orders

Returns Processing

# Freight1500

## Large and Palletized Payload Transport

### Key Benefits

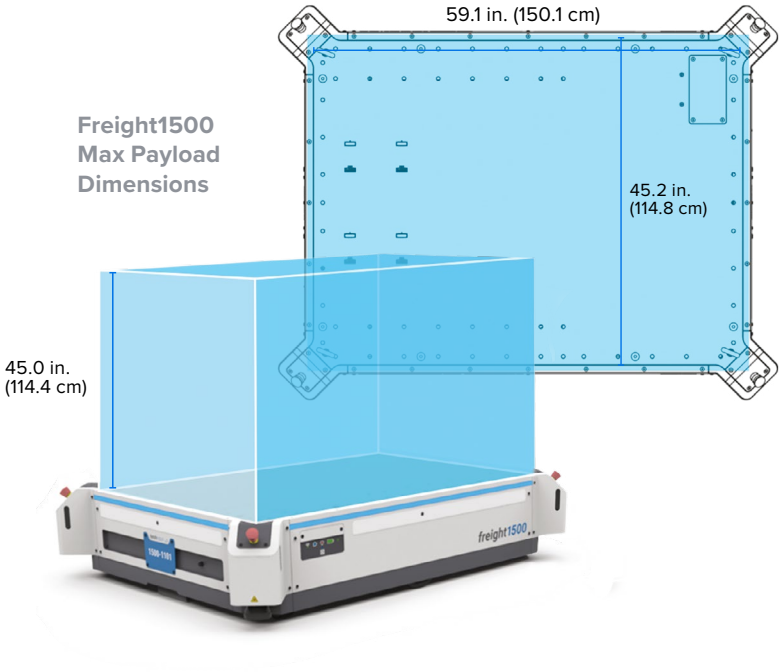
- Improves pallet pick and putaway by dramatically reducing manned travel
- Reduces forklift dependency, traffic and incidents
- Safe, smooth movement with zero-blind-spot sensor coverage
- High duty cycles enabled by fast charge capability

## Industry-Leading Payload Capacities

The Freight1500 greatly expand the possible AMR applications in industrial facilities. The Freight1500 handles up to U.S. standard 40 x 48 inch pallets.

## Industry-Leading Safety Features

Freight1500 Series AMRs feature Zebra's industry-leading dynamic obstacle avoidance technology as well as a certified hardware-based safety system that conforms to both CE and RIA R15.08 requirements, allowing these large AMRs to operate safely around associates and vehicles.





| Specifications | Freight1500 |
|---|---|
| **Weight** | 1,037 lb (471 kg) |
| **Height** | 14.0 in. (35.6 cm) |
| **Base Footprint** | 52.6 in. (133.5 cm) W, 66.5 in. (168.8 cm) L |
| **Maximum Payload Weight** | 3,300 lb (1,500 kg) |
| **Maximum Speed** | 3.4 mph (1.5 m/s) |
| **Turning Radius** | Turn in place |
| **Battery** | Lithium iron magnesium phosphate |
| **Nominal Continuous Runtime** | ~9 hrs |
| **Charging** | Autonomous docking |
| **Charge Time** | 1 hr to 90% |
| **2D Laser Sensor** | 2x SICK, 130 ft./40 m, 275 degrees |
| **3D Camera** | 360 degree coverage (x8 cameras) |
| **Audio** | 100 dB |
| **Top Plate Mounting Points** | 67 |
| **Environment** | Indoor |

## Key Workflows

- Case Picking
- Pallet Movements
- Putaway
- Crossdocking / Consolidation
- Packing and Pallet Recycling

# PalletTransport1500

## Automate Pallet Movements Throughout the Facility

### Key Benefits

- Safely transport full pallets up to 48 x 48 inches (122 x 122 cm) with 2,500 lbs (1,134 kg) capacity in dynamic warehouse environments
- Eliminate manual travel with a pallet jack or forklift and increase safety by automating putaway, replenishment, crossdocking, returns and more
- Case pick-to-robot with AMR pickup, delivery and drop-off using Pallet Transfer Station
- Customize distribution and manufacturing workflows from anywhere with FetchCore software


| Specifications | Freight1500 | | |
|---|---|---|---|
| **Weight** | 1,759 lb (798 kg) | **Charging** | Autonomous docking |
| **Height with Lift Retracted** | 26.5 in. (67.2 cm) | **Charge Time** | 1 hr to 90%, plus 3 hrs for remaining 10% |
| **Height with Lift Extended** | 32.2 in. (81.8 cm) | **2D Laser Sensors** | 2x SICK, 130 ft./40 m, 275 degrees |
| **Width** | 52.6 in. (133.5 cm) | **3D Depth Cameras** | 8x cameras, 360 degree coverage |
| **Length** | 66.5 in. (168.8 cm) | **Robot Visibility** | Illuminated LED band |
| **Max Pallet Dimensions** | 48 in. x 48 in. (121.9 cm x 121.9 cm) | **Wireless** | Integrated 802.11ac & 802.15.1 (Bluetooth® 4.0) |
| **Max Payload Weight** | 2,500 lb (1,136 kg) | **Audio** | 100 dB maximum |
| **Max Speed** | 3.35 mph (1.5 m/s) | **Environment** | Indoor |
| **Turning Radius** | Turn in place | **Min Aisle Width at Max Speed (1.5 m/s)** | 113.8 in. (289 cm) |
| **Battery** | 4x Lithium iron magnesium phosphate | **Min Aisle Width at Min Speed (0.3 m/s)** | 93.3 in. (237 cm) |
| **Nominal Continuous Runtime** | ~9 hrs | **Min Aisle Width for a 2-Robot Lane** | 227.6 in. (578 cm) |

# Key Workflows

## Distribution and Fulfillment

**Putaway**
Transport pallets from receiving docks to storage

**Replenishment**
Transport cases and pallets from storage to forward picking

**Case Picking**
Build mixed pallets, transport to stretch wrap and shipping

**Detrash**
Remove gaylords and containers for collected corrugated, dunnage

**Crossdocking**
Transport pallets directly from inbound to outbound shipments

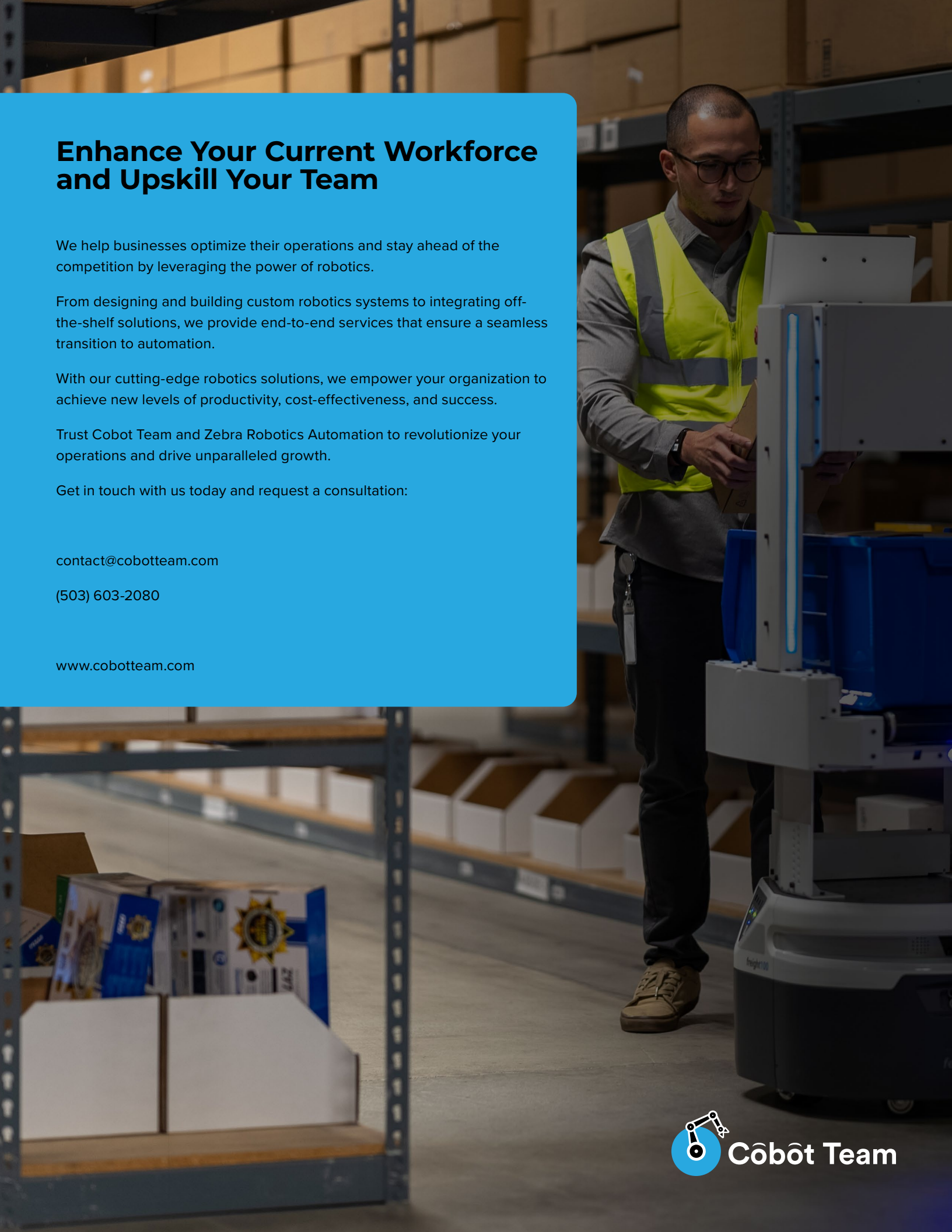
**Returns**
Sort returned items to pallets and transfer to dispositioning

## Manufacturing

**Kitting and Sequencing**
Build kits from raw and send to the production line

**Lineside Delivery**
Issue raw materials to assembly lines or work cells in bulk

**End of Line Handling**
Transport finished goods from production to storage or shipping



# Enhance Your Current Workforce and Upskill Your Team

We help businesses optimize their operations and stay ahead of the competition by leveraging the power of robotics.

From designing and building custom robotics systems to integrating off-the-shelf solutions, we provide end-to-end services that ensure a seamless transition to automation.

With our cutting-edge robotics solutions, we empower your organization to achieve new levels of productivity, cost-effectiveness, and success.

Trust Cobot Team and Zebra Robotics Automation to revolutionize your operations and drive unparalleled growth.

Get in touch with us today and request a consultation:

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Cobot Team