Humro

www.humro.com

Smart Robotics Elevating Human Potential

product manual

WAREHOUSE AUTOMATION


Humro

MISSION

To become the world’s most trusted autonomous robotics platform for factories, warehouses, and supply chains.

VISION

To democratize industrial automation by delivering intelligent, zero-CAPEX solutions that turn today’s operational constraints into tomorrow’s competitive advantages.

OUR ROBOTIC JOURNEY

2004
Design Export.
Outsourcing Vendor

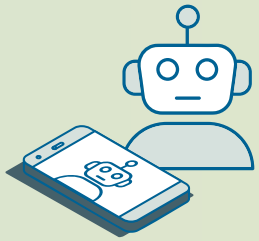
2005
Robotic Child Part
Export Supplier

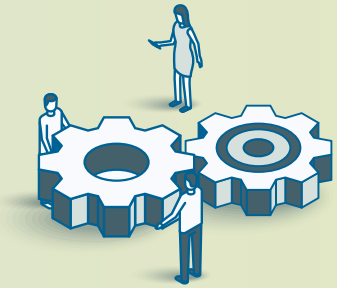
2008
Robotic Line
Integrator

2015
FIRST Customized
Robot

2017
SECOND Mobile
Robot with the help
of a Swedish company

2019
THIRD Inhouse Mobile
Robot Development.





2021

Next Level of Mobile Robot Development with few cofounders & some Indian companies.

2022

Software Bots

2023

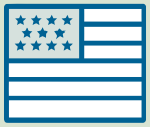
Simulation Software, AI/ML Engines

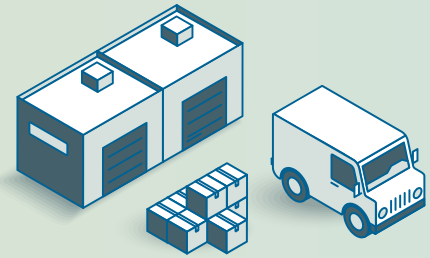
2024

Product Launch In USA

2025

Digital Twins Development





Atlas AC2000

Autonomous Forklift - Truck Loading Unloading

The **Atlas AC2000** leverages advanced LiDAR-based navigation, real-time obstacle detection, and precision control algorithms to autonomously handle **truck loading and unloading tasks,** delivering safe, 24/7 material movement with seamless WMS and ERP integration.

Rated Capacity	Lifting Height	Maximum Speed
4409 lb	**14.76 ft**	**5.6 mph**

LiDAR Sensors – Scanning
Equipped with sensors, cameras and LiDAR systems to detect obstacles and people in their path. They can slow down or stop to prevent collisions

E Stop Buttons
Equipped with emergency stop buttons and systems that can halt the vehicle's motion in case of a safety breach or emergency

3D Camera
Designed to detect obstacles in their path and take evasive action to avoid collisions, such as stopping, changing direction, or backing up

LiDAR Sensors – SLAM
Programmed to operate within specific zones, and they can be configured to slow down or stop when entering restricted areas or high-traffic zones

Safety features
Robot is equipped with collision avoidance technology and emergency stop for operating safety

Atlas AC2000

Key Technical Specifications

Rated Load Capacity	4409 lb (2000 kg)
Lifting Height	14.7 ft & 8.2 ft (4500 mm & 2500 mm)
Aisle Width For 40”x48” Pallet	11.8 ft (3574 mm)
Dimensions	10 X 4 X 7 ft (3291 X 1250 X 2194 mm)
Max Traveling Speed	5.6 mph (2.5 m/s)
Mast Retracted Height	6.9 ft (2100 mm)
Mast Extended Height	18.17 ft (5540 mm)
Total Height	7.19 ft (2194 mm)
Descend Speed	0.72 mph (325 mm/s)
Ascend Speed	0.72 mph (325 mm/s)
Fork Ground Clearance	2.2 in (57 mm)
Overall Width	4.10 ft (1250 mm)
Fork Dimensions (l/e/s)	3.51/0.32/0.14 ft (1070/100/45 mm)
Turning Radius	6.12 ft (1868 mm)
Body Weight	8686 lb (3940 kg)
Fork Dimension (LES)	42.12/3.93/1.77 in (1070/100/45 mm)
Working Temperature	23 ° F to 104 ° F (-5 ° C to 40 ° C)
Max Gradeability	5%
Navigation method	Laser SLAM navigation

Type of Operation	Automatic/Manual/Handheld
Positional Accuracy	(+/- 0.4”) (+/- 10 mm)
Front Safety Protection	LASER Scanner / Anti collision bumper
Rear Safety Protection	LASER Scanner
Top Safety Protection	3D LASER Scanner
Side Safety Protection	LASER Scanner / Anti collision bumper
Other Safety Protection	Emergency Stop Button + Alarm
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	48V / 410Ah
Charging Type	Opportunity
Charging/ Working Time	3 hr/ 8 hr

Battery Warranty: 3 Yrs

Note: Product specifications and features are subject to change due to ongoing upgrades. Please contact our sales team for the latest details.

Maia 2000

Autonomous Pallet Jack

Engineered with SLAM navigation, real time traffic management, and intelligent pallet detection, the Maia 2000 ensures efficient and **uninterrupted ground-to-ground transport** of closed pallets, perfectly integrating with digital warehouse ecosystems

Rated Capacity	Pallet Type	Maximum Speed
4409 lb	**Closed/Open**	**3.35 mph**

LiDAR Sensors – Scanning
Equipped with sensors, cameras and LiDAR systems to detect obstacles and people in their path. They can slow down or stop to prevent collisions

E Stop Buttons
Equipped with emergency stop buttons and systems that can halt the vehicle's motion in case of a safety breach or emergency

3D Camera
Designed to detect obstacles in their path and take evasive action to avoid collisions, such as stopping, changing direction, or backing up

LiDAR Sensors – SLAM
Programmed to operate within specific zones, and they can be configured to slow down or stop when entering restricted areas or high-traffic zones

Safety features
Robot is equipped with collision avoidance technology and emergency stop for operating safety

Maia 2000

Key Technical Specifications

Rated Load Capacity	4409 lb (2000 kg)
Lifting Height	7 in (180 mm)
Aisle Width For 40”x48” Pallet	6.7 ft (2042 mm)
Dimensions	6 X 3 X 6.67 ft (1837 X 901 X 2025 mm)
Max Traveling Speed	3.35 mph (1.5 m/s)
Fork Spread	2 ft (660 mm)
Fork Dimensions (l/e/s)	42.12/3.93/1.77 in (1070/100/45 mm)
Body Weight	1212 lb (520 kg)
Fork Dimension (LES)	42.12/3.93/1.77 in (1070/100/45 mm)
Working Temperature	23 ° F to 104 ° F (-5 ° C to 40 ° C)
Max Gradeability	5%
Navigation method	Laser SLAM navigation
Type of Operation	Automatic
Positional Accuracy	(+/- 0.4”) (+/- 10 mm)
Front/Side Safety Protection	LASER Scanner / Anti collision bumper
Rear Safety Protection	LASER Scanner
Top Safety Protection	3D LASER Scanner
Other Safety Protection	Emergency Stop Button + Alarm
Battery Type	Lithium Iron Phosphate (LiFePO4)

Battery Capacity	24V / 210Ah
Charging Type	Opportunity
Charging/ Working Time	2 hr/ 8 hr

Battery Warranty: 3 Yrs

Note: Product specifications and features are subject to change due to ongoing upgrades. Please contact our sales team for the latest details.

Ares DD1400

Autonomous Double Deep Scissor Reach Truck

Double Deep Scissor Reach Truck is designed for **accessing pallets stored two positions deep.** It maximizes warehouse space by reducing aisle count without sacrificing load capacity Ideal for high-density storage in logistics and cold chain environments.

Rated Capacity	Lifting Height	Maximum Speed
3319 lb	**33 ft**	**5.6 mph**

LiDAR Sensors – Scanning
Equipped with sensors, cameras and LiDAR systems to detect obstacles and people in their path. They can slow down or stop to prevent collisions

E Stop Buttons
Equipped with emergency stop buttons and systems that can halt the vehicle's motion in case of a safety breach or emergency

3D Camera
Designed to detect obstacles in their path and take evasive action to avoid collisions, such as stopping, changing direction, or backing up

LiDAR Sensors – SLAM
Programmed to operate within specific zones, and they can be configured to slow down or stop when entering restricted areas or high-traffic zones

Safety features
Robot is equipped with collision avoidance technology and emergency stop for operating safety

Ares DD1400

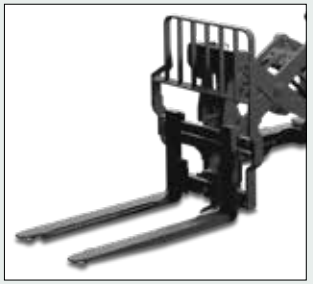
Key Technical Specifications

Rated Load Capacity	3319 lb (2000 kg)
Lifting Height	33 ft (10160 mm)
Aisle Width For 40”x48” Pallet	10 ft (3048 mm)
Dimensions	8.5 X 4.4 X 14 ft (2585 X 1364 X 4365 mm)
Max Traveling Speed	5.6 mph (2.5 m/s)
Mast Retracted Height	6.9 ft (2100 mm)
Mast Extended Height	18.17 ft (5540 mm)
Total Height	7.19 ft (2194 mm)
Descend Speed	0.72 mph (325 mm/s)
Ascend Speed	1.1 mph (500 mm/s)
Fork Ground Clearance	2.2 in (57 mm)
Front Overhang	1.03 ft (309 mm)
Fork Dimensions (l/e/s)	3.51/0.32/0.14 ft (1070/100/45 mm)
Forward Mechanism	Double Scissor
Body Weight	8686 lb (3940 kg)
Fork Dimension (LES)	42.12/3.93/1.77 in (1070/100/45 mm)
Working Temperature	23 ° F to 104 ° F (-5 ° C to 40 ° C)
Max Gradeability	5%
Navigation method	Laser SLAM navigation

Type of Operation	Automatic/Manual/Handheld
Positional Accuracy	(+/- 0.4”) (+/- 10 mm)
Front Safety Protection	LASER Scanner / Anti collision bumper
Rear Safety Protection	LASER Scanner
Top Safety Protection	3D LASER Scanner
Side Safety Protection	LASER Scanner / Anti collision bumper
Other Safety Protection	Emergency Stop Button + Alarm
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	48V / 410Ah
Charging Type	Opportunity
Charging/ Working Time	3 hr/ 8 hr

Battery Warranty: 3 Yrs

Note: Product specifications and features are subject to change due to ongoing upgrades. Please contact our sales team for the latest details.



Ares SD2000

Autonomous Single Deep Scissor Reach Truck

The Single Deep Scissor Reach Truck on is ideal for **high-rack storage in narrow warehouse aisles.** Its scissor reach mechanism allows **efficient single-deep pallet handling.** Perfect for retail, cold storage, and industrial environments. Offers high capacity with compact maneuverability.

Rated Capacity	Lifting Height	Maximum Speed
4409 lb	**33 ft**	**5.6 mph**

LiDAR Sensors – Scanning
Equipped with sensors, cameras and LiDAR systems to detect obstacles and people in their path. They can slow down or stop to prevent collisions

E Stop Buttons
Equipped with emergency stop buttons and systems that can halt the vehicle's motion in case of a safety breach or emergency

3D Camera
Designed to detect obstacles in their path and take evasive action to avoid collisions, such as stopping, changing direction, or backing up

LiDAR Sensors – SLAM
Programmed to operate within specific zones, and they can be configured to slow down or stop when entering restricted areas or high-traffic zones

Safety features
Robot is equipped with collision avoidance technology and emergency stop for operating safety

Ares SD2000

Key Technical Specifications

Rated Load Capacity	3319 lb (2000 kg)
Lifting Height	33 ft (10160 mm)
Aisle Width For 40”x48” Pallet	9.76 ft (2975 mm)
Dimensions	8.5 X 4.4 X 14 ft (2585 X 1364 X 4365 mm)
Max Traveling Speed	5.6 mph (2.5 m/s)
Mast Retracted Height	6.9 ft (2100 mm)
Mast Extended Height	18.17 ft (5540 mm)
Total Height	7.19 ft (2194 mm)
Descend Speed	0.72 mph (325 mm/s)
Ascend Speed	0.12 mph (55 mm/s)
Fork Ground Clearance	2.2 in (57 mm)
Front Overhang	1.03 ft (309 mm)
Fork Dimensions (l/e/s)	3.51/0.32/0.14 ft (1070/100/45 mm)
Forward Mechanism	Double Scissor
Body Weight	8686 lb (3940 kg)
Fork Dimension (LES)	42.12/3.93/1.77 in (1070/100/45 mm)
Working Temperature	23 ° F to 104 ° F (-5 ° C to 40 ° C)
Max Gradeability	5%
Navigation method	Laser SLAM navigation

Type of Operation	Automatic/Manual/Handheld
Positional Accuracy	(+/- 0.4”) (+/- 10 mm)
Front Safety Protection	LASER Scanner / Anti collision bumper
Rear Safety Protection	LASER Scanner
Top Safety Protection	3D LASER Scanner
Side Safety Protection	LASER Scanner / Anti collision bumper
Other Safety Protection	Emergency Stop Button + Alarm
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	48V / 410Ah
Charging Type	Opportunity
Charging/ Working Time	3 hr/ 8 hr

Battery Warranty: 3 Yrs

Note: Product specifications and features are subject to change due to ongoing upgrades. Please contact our sales team for the latest details.

Hermes MM10

Rated Capacity	Lifting Height	Maximum Speed
3527 lb	**32 ft**	**5.6 mph**

Autonomous Reach Truck Moving Mast

Powered by 3D vision systems dynamic path planning, and high accuracy lift positioning, the Hermes MM32 enables fully autonomous **high-rack storage up to 32 feet**, optimizing vertical space utilization and warehouse throughput.

LiDAR Sensors – Scanning
Equipped with sensors, cameras and LiDAR systems to detect obstacles and people in their path. They can slow down or stop to prevent collisions

E Stop Buttons
Equipped with emergency stop buttons and systems that can halt the vehicle's motion in case of a safety breach or emergency

3D Camera
Designed to detect obstacles in their path and take evasive action to avoid collisions, such as stopping, changing direction, or backing up

LiDAR Sensors – SLAM
Programmed to operate within specific zones, and they can be configured to slow down or stop when entering restricted areas or high-traffic zones

Safety features
Robot is equipped with collision avoidance technology and emergency stop for operating safety

Hermes MM10

Key Technical Specifications

Rated Load Capacity	3527 lb (1600 kg)
Lifting Height	32 ft (10000 mm)
Aisle Width For 40”x48” Pallet	10.5 ft (3200 mm)
Dimensions	8.6 X 4.9 X 13.6 ft (2625 X 1484 X 4154 mm)
Max Traveling Speed	5.6 mph (2.5 m/s)
Mast Retracted Height	6.9 ft (2100 mm)
Mast Extended Height	18.17 ft (5540 mm)
Total Height	7.19 ft (2194 mm)
Descend Speed	0.72 mph (325 mm/s)
Ascend Speed	0.12 mph (55 mm/s)
Fork Ground Clearance	3 in (75 mm)
Front Overhang	4.10 ft (1250 mm)
Fork Dimensions (l/e/s)	3.51/0.32/0.14 ft (1070/100/45 mm)
Forward Mechanism	Double Scissor
Body Weight	10251 lb (4650 kg)
Fork Dimension (LES)	42.12/3.93/1.77 in (1070/100/45 mm)
Working Temperature	23 ° F to 104 ° F (-5 ° C to 40 ° C)
Max Gradeability	5%
Navigation method	Laser SLAM navigation

Type of Operation	Automatic/Manual/Handheld
Positional Accuracy	(+/- 0.4”) (+/- 10 mm)
Front Safety Protection	LASER Scanner / Anti collision bumper
Rear Safety Protection	LASER Scanner
Top Safety Protection	3D LASER Scanner
Side Safety Protection	LASER Scanner / Anti collision bumper
Other Safety Protection	Emergency Stop Button + Alarm
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	48V / 410Ah
Charging Type	Opportunity
Charging/ Working Time	3 hr/ 8 hr

Battery Warranty: 3 Yrs

Note: Product specifications and features are subject to change due to ongoing upgrades. Please contact our sales team for the latest details.

SALIENT FEATURES

AUTONOMOUS ROBOTS

- Driverless reach truck with a vertical reach of 32 ft
- Driverless Counterbalanced forklift for Truck Loading and unloading
- Operator-less Pallet jack for ground to ground movement of Pallets

MANUAL OVERRIDE

- Ensures uninterrupted operations by giving you instant control during unexpected stoppages

EASE OF ADOPTION

- Easy integration - minimal IT overhead required, can operate via HMI or web UI
- No change in current infrastructure / process
- Try it - Like it - Buy it

IMPRESSIVE VERTICAL REACH

- It can lift materials and pallets to a staggering height of up to 9.5 meters, maximizing your vertical storage space

COST SAVINGS

- Minimizes human error, delivering long term savings & operational reliability

EFFICIENT
RELIABLE
POWERFULL

All of our products are powered by i-ware , our proprietary AI engine - ensuring efficient operation & advanced fleet management.

01

FLEET MANAGER

Supervises and coordinates multiple autonomous forklifts within a fleet

02

RCS

Designed to control and coordinate the actions and behaviors of driverless forklifts

03

NAVIGATION

Allowing autonomous forklifts to autonomously navigate through complex environments

04

WCS

Ensure the efficient flow of materials and optimal utilization of systems

05

WES

Serve as the operational orchestrators, optimizing warehouse processes for efficiency and accuracy

06

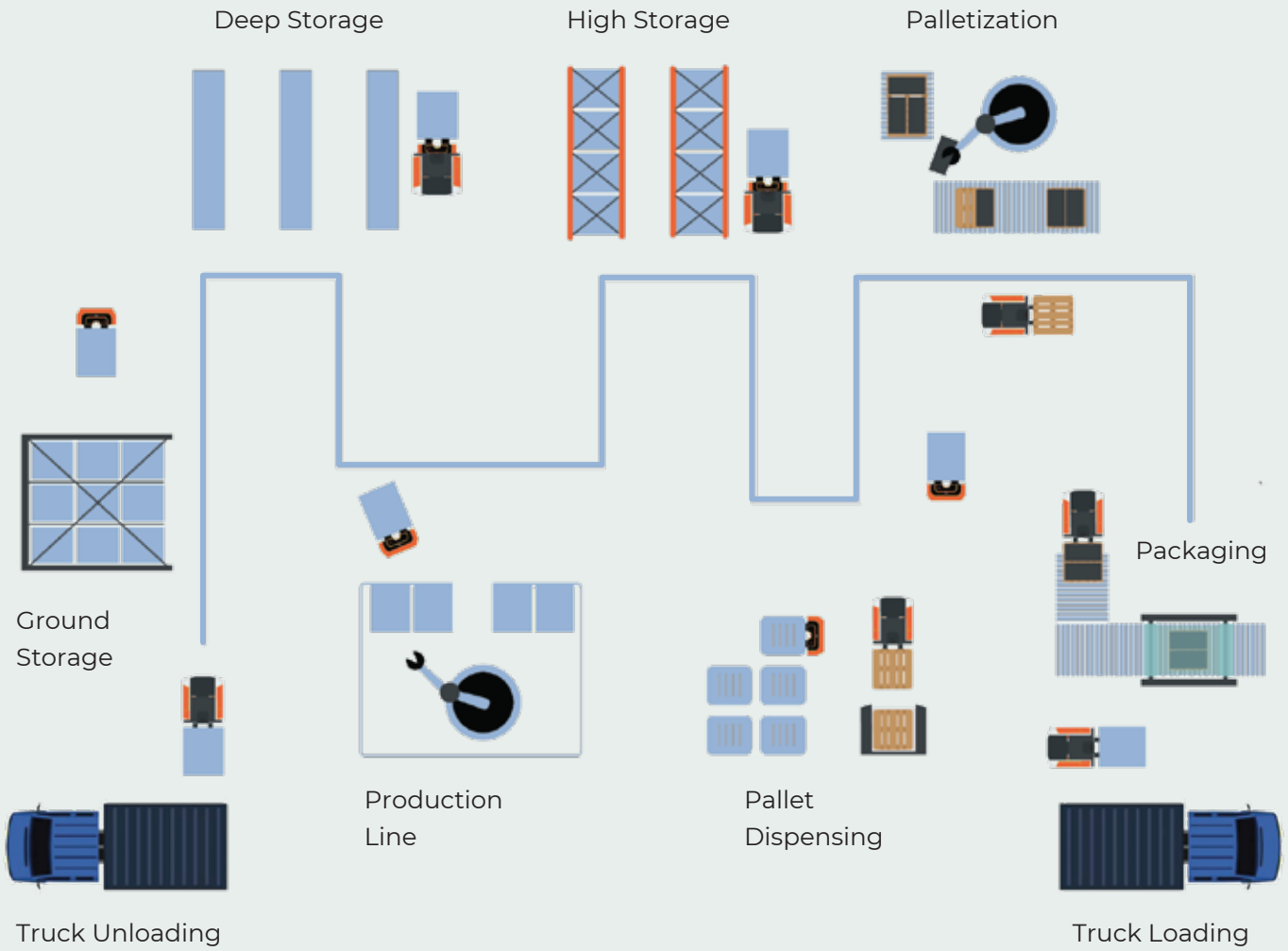
WCS

Encompass technologies like AS/RS, conveyors, and robotics to automate material handling

END TO END PROCESS

FROM DOCK TO DOORSTEP

Streamlining Inbound to Outbound for Seamless Warehouse/Production Flow. All the operations are optimized for accuracy and speed



INTRALOGISTICS SOLUTION

INBOUND PROCESS
Efficiency
Receiving Accuracy
Traceability

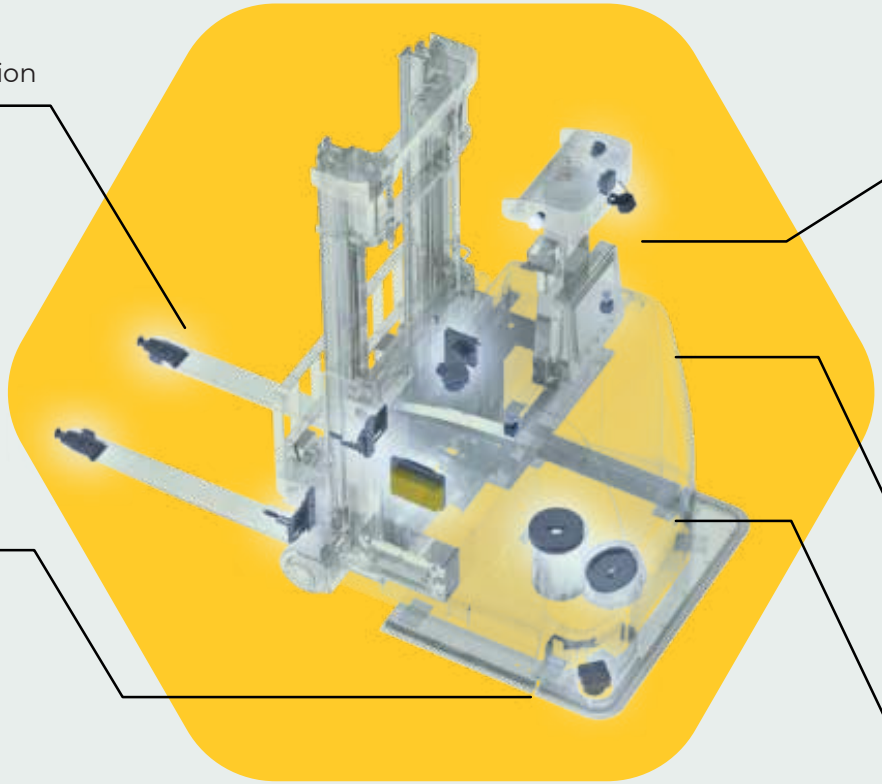
THIRD-PARTY INTEGRATION
Enhanced Efficiency
Improved Visibility
Cost Saving

INVENTORY MANAGEMENT
Realtime Accuracy
Visibility
Overstocks

OUTBOUND PROCESS
Order Processing Efficiency
Picking Packing Accuracy
Scalability

SAFETY FEATURES

Our machines are equipped with **360°**obstacle detection, emergency stop systems, and real-time path adjustments to prevent collisions. Their built-in safety logic ensures smooth human-machine interaction, even in dynamic environments.



SAFE LOAD HANDLING

Material Loading/Unloading Detection

- Material Loading/Unloading Detection
- Fork Lift Detection Sensor
- Fork Tip Sensor

360 SURROUND SAFETY

Multi Planner Multi Sensor Safety

- Multi Lidar Sensors at Bottom
- Front 3D Obstacle Detection Sensor
- Top Mounted Laser Sensor
- Cameras

PROTECTIVE DEVICES AND SAFETY MEASURES

Visual and Acoustic Alarms

- Multi Color Warning Light System
- Acoustic Warning System
- Guided Safety Light System
- Emergency Stop Buttons
- HMI Display Panel

PROPRIETARY EMBEDDED SYSTEM

Information Processing, Security Logics

SPEED AND STEERING SYSTEM

Safety Steering and Traction Encoders

WAREHOUSE CONTROL SYSTEM

Cognitive Perception

Cognitive Exteroception

Path Planning And Control

Warehouse Safety

Hardware Abstraction

WHY HUMRO?

In a world where warehouse automation often comes with high complexity, slow deployment, and rigid ownership models, Humro stands apart.

- **LIVE IN 7 DAYS**
  Pre-configured hardware and FleetOps software make deployment fast and predictable.
- **No IT Integration Needed**
  Zero APIs, zero bugs, zero cyber risk.
- **33% Fewer Robots**
  Our patented algorithm delivers more throughput with fewer units.
- **Enterprise Security**
  Runs on intranet networks, not the public internet.
- **Flexible Ownership**
  RaaS, lease-to-own, 0% EMI, zero down payment, and short-term rental options.

HUMRO:

Autonomy That Works Where It Matters Most

Humro is built for the reality of modern operations, not for lab demos. Our autonomous mobile robots are engineered to deliver measurable results, higher throughput, lower costs, and zero downtime.

With proprietary FleetOps software and patented algorithms, Humro robots go live in as little as 7 days, without the complexity of IT integration or API dependencies.

Every system runs on secure intranet networks, ensuring reliability and enterprise-grade safety. From factories to warehouses and ports, Humro adapts to the toughest environments with the flexibility of RaaS, lease-to-own, and short-term rental models.

What this really means is simple: fewer robots, faster performance, and smarter ownership options. Humro isn't just automation, it's autonomy designed for the way the world actually works.

ABOUT US

Affordable Robotic Intelligent automation combines robotic process automation (RPA), artificial intelligence (AI) and generative AI, allowing you to scale process automation, growth, and decision-making.

As a leader in process orchestration, RPA, and intelligent automation, Affordable Robotics is uniquely placed to give you the inside track on proven automation. By harnessing our technologies, you can create compelling differentiators.

WHAT WE DO

We are a pioneering force in the world of autonomous forklifts.

We revolutionize logistics with intelligent, driverless forklifts that maximize efficiency, improve safety, and lower operational costs.

Our Robotics includes a broad dynamic realm of technology, taking the best from around the world and delivering the future. Leveraging state-of-the-art robotics, AI-driven navigation, and advanced sensor technology, we provide versatile solutions.

AUTOMATION MADE EASY

24x7 SUPPORT | **100+** INSTALLATIONS

We are a pioneering force in the world of autonomous forklifts.

We revolutionize logistics with intelligent, driverless forklifts that maximize efficiency, improve safety, and lower operational costs.

FIRST IN AUTONOMOUS FORKLIFTS

Our Robotics includes a broad dynamic realm of technology, taking the best from around the world and delivering the future.

Leveraging state-of-the-art robotics, AI-driven navigation, and advanced sensor technology, we provide versatile solutions.

POST SALES

REGULAR MAINTENANCE PROGRAM

Clients can opt for regular maintenance programs, tailored to their specific needs, to proactively address potential issues and optimize

REMOTE DIAGNOSTICS

Our forklifts are equipped with remote diagnostic capabilities, allowing our service engineers to identify and resolve certain issues remotely.

DEDICATED AUTOMATION ENGINEER

Our authorized service dealers have dedicated automation engineers. They are trained to provide rapid and accurate service, maintenance, and troubleshooting.

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