ARAPL RaaS
Robotic Warehouse Solutions

**WAREHOUSE AUTOMATION**

# PRODUCT MANUAL

# OUR ROBOTIC JOURNEY

**2004**
Design Export.
Outsourcing
Vendor

**2008**
Robotic Line Integrator

**2017**
SECOND Mobile Robot
with the help of a
Swedish company

**2021**
Next Level of Mobile
Robot Development with
few cofounders & some
Indian companies.

**2023**
Simulation Software,
AI/ML Engines

**2025**
Digital Twins
Development

**2004**  **2005**  **2008**  **2015**  **2017**  **2019**  **2021**  **2022**  **2023**  **2024**  **2025**

**2005**
Robotic Child Part
Export Supplier

**2015**
FIRST Customized Robot

**2019**
THIRD Inhouse Mobile
Robot Development.

**2022**
Software Bots

**2024**
Product Launch In USA

**CONTROLLERS & 6 AXIS ROBOTS**

**PROGRAMMABLE AI ROBOTS**

# 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.

# 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

## Mission

Transforming warehouses with human-centric automation for safe, scalable, and impactful operations

## Vision

**SAIL**
Solutions for Autonomous Integrated Logistics

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 | 4409 lb |
| --- | --- |
| Lifting Height | 11.8 ft |
| Maximum Speed | 7.4 mph |

# ATLAS AC2000

## Autonomous Forklift - Truck Loading Unloading

| | | |
| --- | --- | --- |
| 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 | 7.4 mph | 3.3 m/s |
| Positional Accuracy | (+/- 0.4") | (+/- 10 mm) |
| Fork Ground Clearance | 2.2 in | 57 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% | |
| Battery Capacity | 48V / 410Ah | |
| Charging Type | Opportunity | |
| Charging/ Working Time | 3 hr/ 8 hr | |
| Navigation method | Laser SLAM navigation | |
| 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 | |

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 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 | 5.6 mph | 2.5 m/s |
| Positional Accuracy | (+/- 0.4") | (+/- 10 mm) |
| Fork Spread | 2 ft | 660 mm |
| Body Weight | 1212 lb | 550 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% | |
| Battery Capacity | 24 V / 210 Ah | |
| Charging Type | Opportunity | |
| Charging/ Working Time | 2 hr/ 8 hr | |
| Navigation method | Laser SLAM navigation | |
| 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 | |
| Pallet Type | Closed / Open | |

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.

| | |
|---|---|
| **4409 lb** | **Rated Capacity** |
| **7 in** | **Lifting Height** |
| **5.6 mph** | **Maximum Speed** |

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.

# ARES SD2000
**Launching in January 2026**

## Autonomous Single Deep Scissor Reach Truck

| | | |
|---|---|---|
| **Rated Load Capacity** | 4409 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** | 4.4 mph | 1.5 m/s |
| **Lifting Speed** | 0.12 mph | 55 mm/s |
| **Fork Ground Clearance** | 2.2 in | 57 mm |
| **Working Temperature** | 23 ° F to 104 ° F | -5 ° C to 40 ° C |
| **Forward Mechanism** | Single Scissor | |
| **Fork Size** | 1070 mm / 100 mm / 40 mm (LES) | |
| **Front Overhang** | 309 mm | |
| **Battery Capacity** | 48V / 410Ah | |
| **Charging Type** | Opportunity | |
| **Charging/ Working Time** | 3 hr/ 8 hr | |
| **Navigation method** | Laser SLAM navigation | |
| **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 | |
| **Max Gradeability** | 10% | |

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.

| **Rated Capacity** | **4409 lb** |
|---|---|
| **Lifting Height** | **33 ft** |
| **Maximum Speed** | **4.4 mph** |

# ARES DD1400

**Launching in January 2026**

## 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 Load Capacity | 3319 lb | 2000 kg |
| Lifting Height | 33 ft | 10160 mm |
| Aisle Width<br>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 | 4.4 mph | 1.5 m/s |
| Lifting Speed | 1.1 mph | 500 mm/s |
| Fork Ground Clearance | 2.2 in | 57 mm |
| Working Temperature | 23 ° F to 104 ° F | –5 ° C to 40 ° C |
| Forward Mechanism | Double Scissor | |
| Fork Size | 1070 mm / 100 mm / 40 mm (LES) | |
| Front Overhang | 775 mm | |
| Battery Capacity | 48V / 460Ah | |
| Charging Type | Opportunity | |
| Charging/ Working Time | 3 hr/ 8 hr | |
| Navigation method | Laser SLAM navigation | |
| 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 | |
| Max Gradeability | 10% | |

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.



| | |
|---|---|
| **3319 lb** | **Rated Capacity** |
| **33 ft** | **Lifting Height** |
| **4.4 mph** | **Maximum Speed** |

The Autonomous Single-Double Forklift handles **one or two pallets side-by side**. It features autonomous operation, hydraulic mode switching, synchronized forks, and camera-based auto fork width adjustment for efficient, stable handling



| Rated Capacity | 7716 lb |
|---|---|
| Outer Fork Range | 27.6–82.7 in |
| Inner Fork Range | 14.6–28.7 in |

# GEMINI 2000

**Launching in November 2025**

## Autonomous Single Double Forklift

| | | |
|---|---|---|
| Rated Load Capacity | 7716 lb | 3500 kg |
| Lifting Height | 10.8 ft | 3300 mm |
| Aisle Width<br>For 40"x48" Pallet | 12.3 ft | 3749 mm |
| Dimensions | 12.3 X 4.27 X 7.4 ft | 3750 X 1300 X 2250 mm |
| Max Traveling Speed | 8 mph | 3.6 m/s |
| Lifting Speed | 1.1 mph | 500 mm/s |
| Working Temperature | 23 ° F to 104 ° F | -5 ° C to 40 ° C |
| Fork Carriage Width | 3.60 ft | 1100 mm |
| Inner Fork Range | 14.6 – 28.7 in (In to In) | |
| Outer Fork Range | 27.6 – 82.7 in (Out to Out) | |
| Fork Size | 1070 mm / 100 mm / 40 mm (LES) | |
| Battery Capacity | 80V / 460Ah | |
| Charging Type | Opportunity | |
| Charging/ Working Time | 3 hr/ 8 hr | |
| Navigation method | Laser SLAM navigation | |
| 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 | |
| Max Gradeability | 10% | |

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.

# TALON 2000

**Launching in January 2026**

## Autonomous Clamp Forklift

The Autonomous Clamp Forklift is built to handle **bulky, non-palletized items like home appliances with precision and care**. Its intelligent control system ensures accurate clamping pressure and stable transport, making it ideal for delicate or irregularly shaped loads.

| | | |
|---|---|---|
| Rated Load Capacity | 7716 lb | 3500 kg |
| Lifting Height | 19.7 ft | 5995 mm |
| Aisle Width For 40"x48" Pallet | 12.3 ft | 3749 mm |
| Dimensions | 12 X 4.27 X 7.4 ft | 3650 X 1300 X 2250 mm |
| Max Traveling Speed | 8 mph | 3.6 m/s |
| Lifting Speed | 1.1 mph | 500 mm/s |
| Working Temperature | 23 ° F to 104 ° F | -5 ° C to 40 ° C |
| Arm Height | 54 in | 1372 mm |
| Arm Length | 40 in | 1016 mm |
| Opening Range | 24.5 – 90 in | 622.3 – 2286 mm |
| Fork Outside Spread | 9.8 – 43 in | 250~1100 mm |
| Side Shifting | Yes | |
| Battery Capacity | 80V / 460Ah | |
| Charging Type | Opportunity | |
| Charging/ Working Time | 3 hr/ 8 hr | |
| Navigation method | Laser SLAM navigation | |
| 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 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.



| | |
|---|---|
| **7716 lb** | **Rated Capacity** |
| **54 /40 in** | **Arm Height/Length** |
| **24.5–90 in** | **Opening Range** |

The Autonomous VNA Reach Truck is engineered for **high-density storage in very narrow aisles**,  With precise navigation and reach capabilities, it efficiently handles pallet storage and retrieval at height, even in tight spaces. Safe and accurate material handling in confined areas.

# ORION 1600

## Autonomous Narrow Aisle Forklift

| | | |
|---|---|---|
| **Rated Load Capacity** | 3527 lb | 1600 kg |
| **Lifting Height** | 19.7 ft | 6000 mm |
| **Width Over Guide Rollers** | | 1575 mm |
| **Dimensions** | 10.9 X 5.1 X 13.3 ft | 3315 X 1575 X 4065 mm |
| **Max Traveling Speed** | 5 mph | 2.2 m/s |
| **Turning Radius** | 6.8 ft | 2085 mm |
| **Fork Rotation Axis Distance** | 2.8 ft | 845 mm |
| **Side Shifting Distance** | 4.2 ft | 1280 mm |
| **Working Temperature** | 23 ° F to 104 ° F | -5 ° C to  40 ° C |
| **Fork Outside Spread** | 265~765 mm | |
| **Max Gradeability** | 5% | |
| **Battery Capacity** | 48V / 600Ah | |
| **Charging Type** | Opportunity | |
| **Charging/ Working Time** | 3 hr/ 8 hr | |
| **Navigation method** | Laser SLAM navigation | |
| **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 | |

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.

| **Rated Capacity** | **3527 lb** |
|---|---|
| **Lifting Height** | **19.7 ft** |
| **Turning Radius** | **6.8 ft** |

# HERMES MM32

## 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.

| | | |
|---|---|---|
| **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** | 4.4 mph | 1.96 m/s |
| **Positional Accuracy** | (+/- 0.4") | (+/- 10 mm) |
| **Body Weight** | 10251 lb | 4650 kg |
| **Fork Dimensions** | 3.5 x 0.32 x 0.14 ft | 1070 × 100 × 45 mm |
| **Fork Ground Clearance** | 3 in | 75 mm |
| **Working Temperature** | 23 ° F to 104 ° F | −5 ° C to 40 ° C |
| **Max Gradeability** | 5% | |
| **Battery Type** | Lithium Iron Phosphate | |
| **Battery Capacity** | 48 V / 460 Ah | |
| **Charging Type** | Opportunity | |
| **Charging/ Working Time** | 3 hr/ 8 hr | |
| **Navigation method** | Laser SLAM navigation | |
| **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 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.

| | |
|---|---|
| **3527 lb** | **Rated Capacity** |
| **32 ft** | **Lifting Height** |
| **4.4 mph** | **Maximum Speed** |

12

# EFFICIENT RELIABLE POWERFULL

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

## Fleet Manager

Supervises and coordinates multiple autonomous forklifts within a fleet

## RCS

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

## Navigation

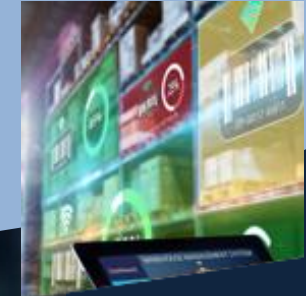Allowing autonomous forklifts to autonomously navigate through complex environments

## WCS

Ensure the efficient flow of materials and optimal utilization of systems

## WES

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

## WCS

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

13

# INTRALOGISTICS SOLUTION

**iWARE**
INTELLIGENT ROBOT MANAGEMENT SYSTEM
Powered

**INBOUND PROCESS**
Efficiency
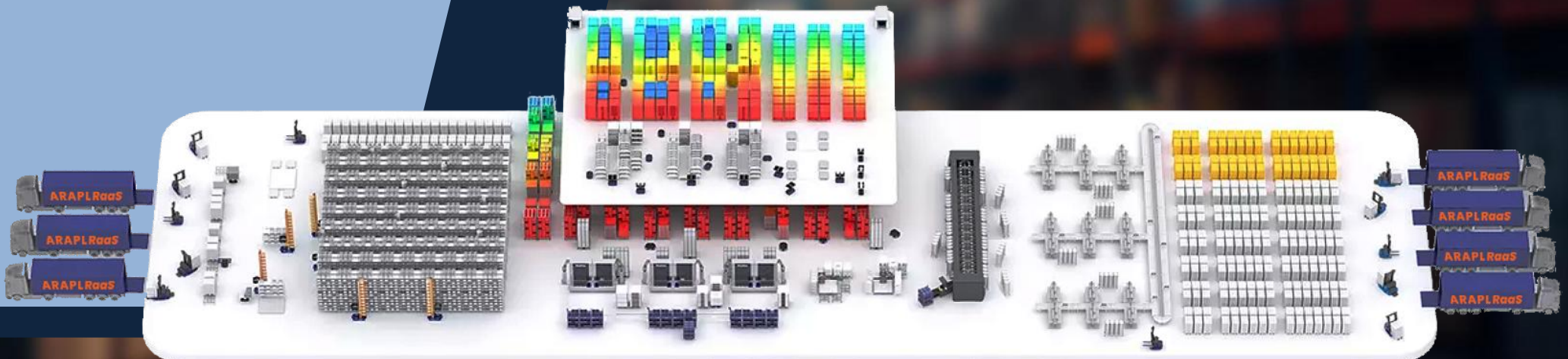Receiving Accuracy
Traceability

**THIRD-PARTY INTEGRATION**
Enhanced Efficiency
Improved Visibility
Cost Saving

**INVENTORY MANAGEMENT**
Realtime Accuracy
Visibility
Overstocks

**OUTBOUND PROCESS**
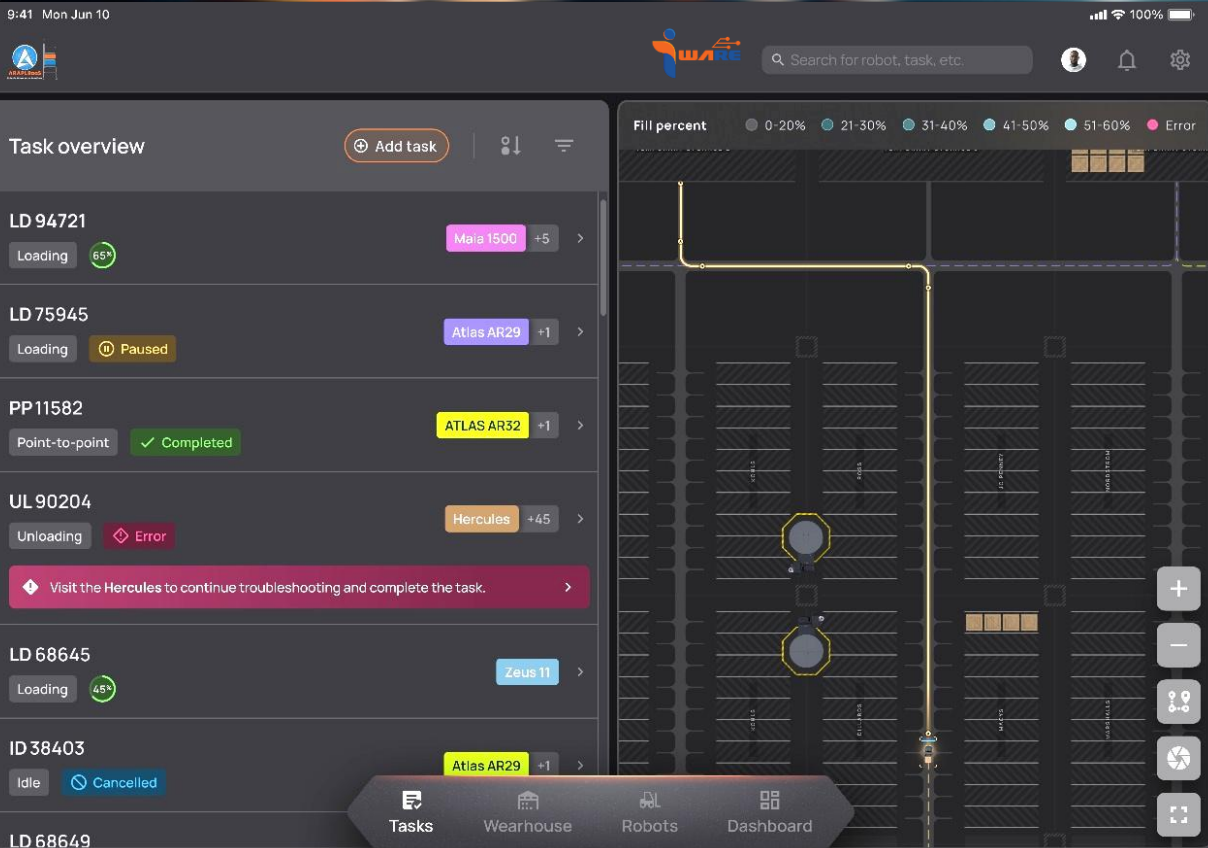Order Processing Efficiency
Picking Packing Accuracy
Scalability

# 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

Deep Storage

High Storage

Palletization

Ground Storage

Packaging

Truck Unloading

Production Line

Pallet Dispensing

Truck Loading

# WAREHOUSE CONTROL SYSTEM



**Cognitive Perception**

**Cognitive Exteroception**

**Path Planning And Control**

**Safety**

**Hardware Abstraction**

# 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

## Protective Devices and Safety Measures
Visual and Acoustic Alarms

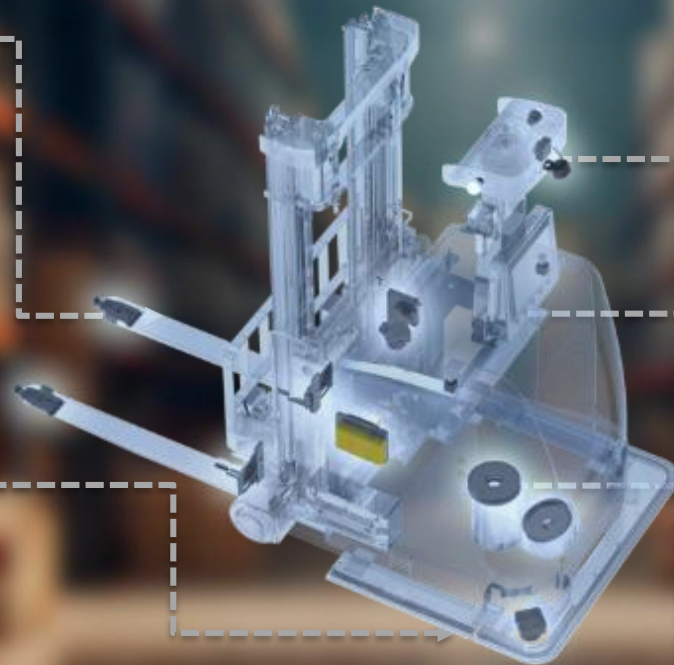- Multi Color Warning Light System
- Acoustic Warning System
- Guided Safety Light System
- Emergency Stop Buttons
- HMI Display Panel

## 360 Surround Safety
Multi Planner Multi Sensor Safety

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

## Proprietary Embedded System
Information Processing, Security Logics

## Speed And Steering System
Safety Steering and Traction Encoders

# POST SALES

### REGULAR MAINTENANCE PROGRAM

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

### 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.

## 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.

www.araplraas.com

## CONTACT US

📞 +1 (951) – 403 – 9480          ✉️ info@araplraas.com

in  arapl-raas                    𝕏  araplraas

📍 1143-C Executive Circle, Suite 104, Cary, NC 27511