



Robotics

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@ XYZ Robotics



Robotics

Pick Anything. Place Anywhere.

RockyLight

Mobile Manipulation Robot

Versatile Agile



RockyLight SE

RockyLight is a versatile Mobile Manipulation Robot (MMR). It features a mobile base, a vertical lifting arm base, and a compact design. The robot is suitable for various case handling tasks, particularly on load-limited steel platforms and in tight spaces.

RockyLight SE serves as an alternative. The robot can be in position by a pallet jack and work autonomously, providing better energy efficiency and cost savings.



1.8 m
Working radius

2.2 m
Pallet height

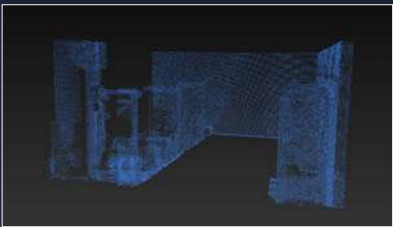
20 kg
Payload

2 m/s
Max speed

400 picks/hour
400 – 1,200 cases/hour

SLAM Navigation

360° 3D perception for environmental awareness.
RockyLight SE: Manually maneuverable using a pallet jack.



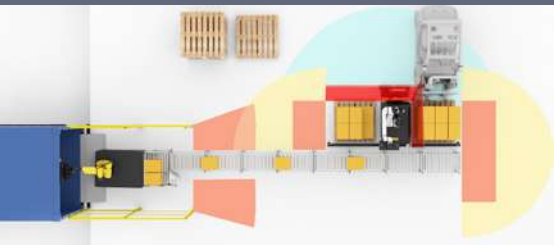
3D Vision

Model-free vision recognition of various case types.



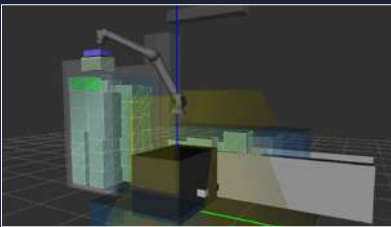
LiDAR-based Safety System

Active speed control ensures both efficiency and workspace safety.
When entering the yellow zone, speed automatically slows (configurable), and the red zone triggers an immediate emergency stop. HMI allows for a single-click return to full speed.



Optimized Motion Planning

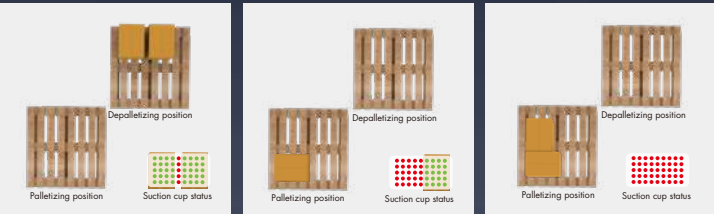
Lightweight, compact design with a large arm reach.
Autonomous obstacle avoidance in constrained spaces.



ECIC Smart Gripper

Supports multiple grips and single placements, maximizing operational efficiency.

ECIC: Each Cup Individually Controllable

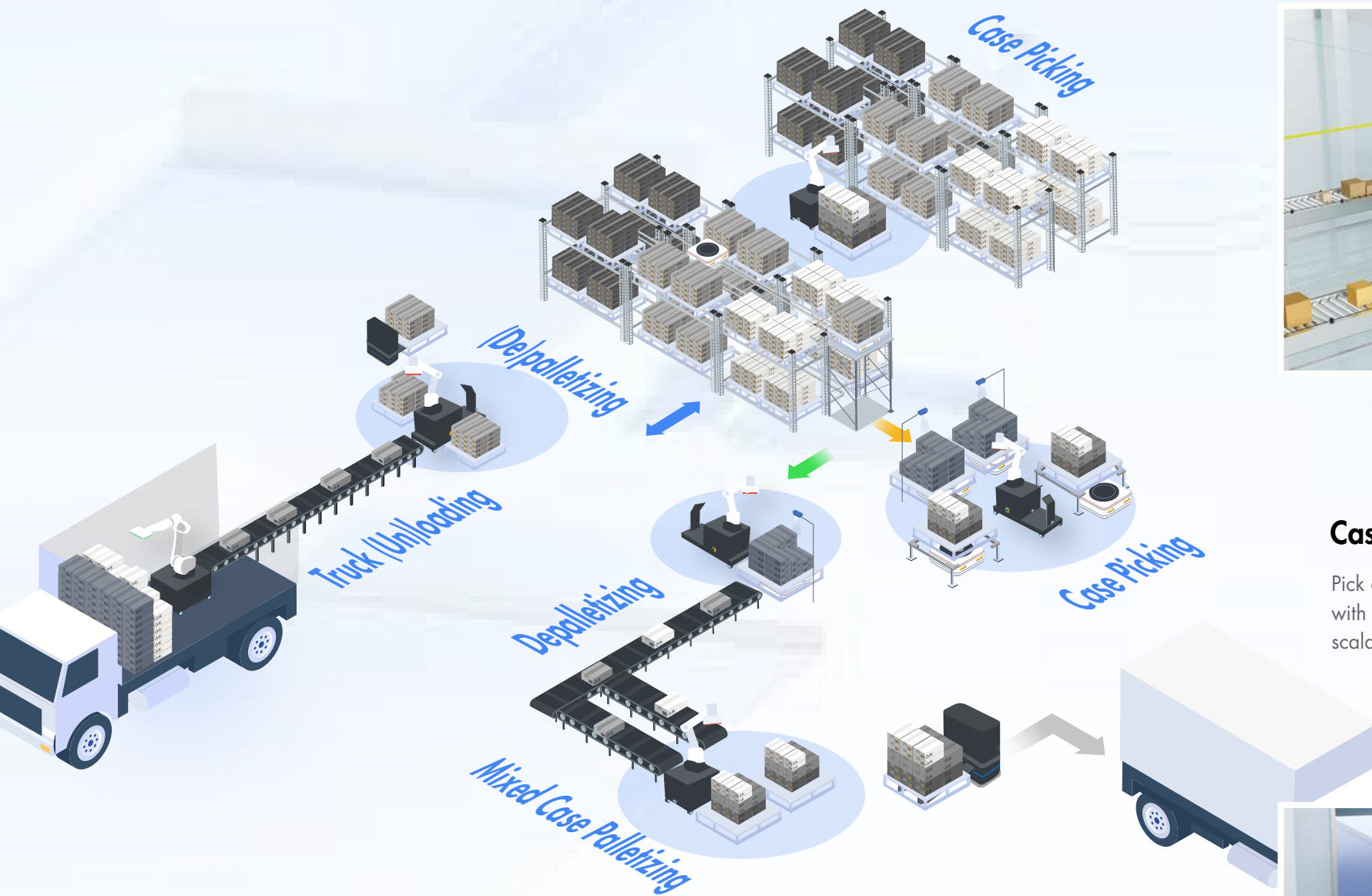


Wireless Pad HMI

Intuitive, user-friendly interface.
Supports easy remote control and real-time monitoring.
RockyLight SE: HMI is fixed at the rear of its body.



Intralogistics Solutions



Powered by advanced perception and planning algorithms, RockyLight is the ideal solution for a range of warehouse logistics operations. It ensures seamless integration with upstream and downstream processes.



Mixed Case Palletizing

No upstream case sorting required, allowing flexible mixed case fulfillment.

Case Picking

Pick at the existing rack level, with small investment and easy scalability.



In/Outbound (De)palletizing

Paired with RockyOne for efficient, fully automated loading/unloading operations.



Electronics

Mixed Case Palletizing

Random

Case sequence

80%

Fill rate

Labelled-side out

Pallet pattern



Case Video

FMCG

Inbound Palletizing

900+

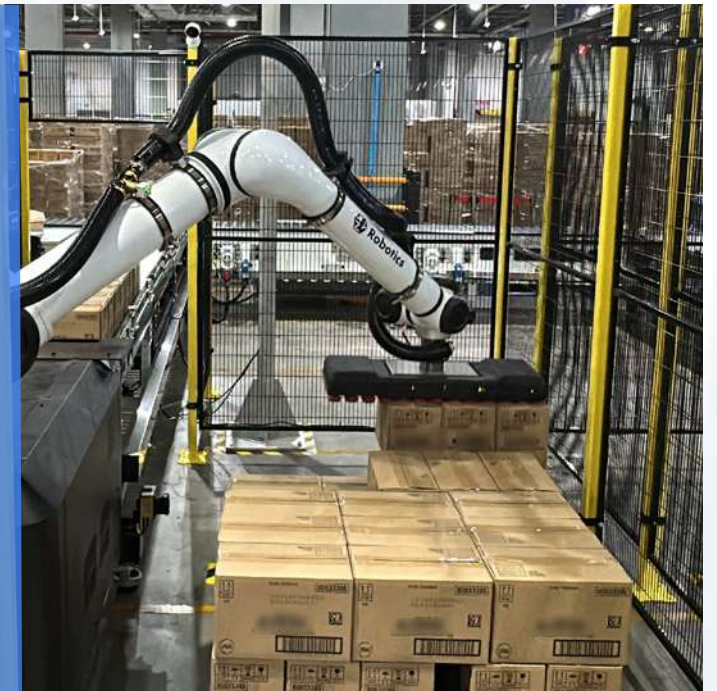
Cases/hour

Active Safety

Speed control technology

2 m

Pallet height



3PL

Mixed Case Palletizing in Cage Cart

1.85 m

Pallet height

70%

Fill rate

Random

Case sequence



Specifications



Model	RockyLight		RockyLight SE
(De)palletizing Throughput (90° Layout)	600 mm * 400 mm * 400 mm, 20 kg	(23.62 in x 15.75 in x 15.75 in, 44.13 lbs)	400 cases/hour
	450 mm * 300 mm * 250 mm, 12 kg	(17.72 in x 11.81 in x 9.84 in, 26.46 lbs)	800 cases/hour
	300 mm * 250 mm * 250 mm, 5 kg	(11.81 in x 9.84 in x 9.84 in, 11.02 lbs)	1,000 cases/hour
Applicable Pallet Size	L ≤ 1,200 mm (3.94 ft)	W ≤ 1,200 mm (3.94 ft)	H ≤ 2,200 mm (7.21 ft)
Applicable Case Size	Side length: 100 – 800 mm (3.94 – 31.5 in)		
Payload	20 kg (44.1 lbs)		
Footprint	1,120 mm x 800 mm (3.67 ft x 2.62 ft)		1,100 mm x 900 mm (5.91 ft x 2.95 ft)
Weight	650 kg (1,433 lbs)		850 kg (1,874 lbs)
Vertical Stroke of Arm Base	900 mm (2.95 ft)		
Suction Cup Size	L: 722 mm (2.37 ft)	W: 274 mm (0.9 ft)	
Mobility	Omnidirectional		–
Max Speed	2 m/s (6.65 ft/s)		–
Max Slope	10% (5.7°)		–
Max Step Height	20 mm (0.78 in)		–
Max Gap	50 mm (1.97 in)		–
Battery Type	48 V LiFePO ₄ battery, 80 Ah		–
Full Charge Endurance	4 h		–
Full Charging Time	3 h		–
Power Supply	Single-phase 220 VAC, 10 A*		Three-phase 380 VAC, 16 A
Operation Temperature	-10 – 45° C (14 – 113°F)		
Protection Class	IP20		

* 400/480-220 VAC transformer available upon request.

About XYZ Robotics

XYZ Robotics' mission is to accelerate the advent of autonomous robotic perception and manipulation. The company develops mobile manipulation robots (MMR). These MMRs pioneer automation in truck loading, unloading, and case picking.

Founded in 2018, XYZ Robotics serves industry-leading customers worldwide, with operational branches in the United States, Germany, Japan, South Korea, and China.

