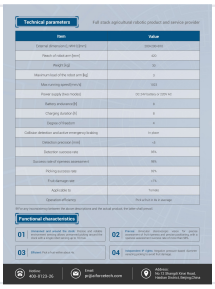
Automated Tomato Harvesting Robot

This robot uses stereoscopic vision and AI to detect and assess tomato ripeness. Its 4-degrees-of-freedom robot arm and negative pressure picking system enable efficient harvesting with minimal damage.



ADDITIONAL IMAGES

Product Overview

Autonomous Agricultural Solution

This advanced robotic system is designed for automated fruit harvesting in unmanned environments such as agricultural parks and professional greenhouses. It integrates high-precision computer vision and deep learning algorithms to accurately assess ripeness and perform non-contact picking. By utilizing negative pressure suction technology, the robot ensures efficient, high-speed harvesting while minimizing potential damage to the crops.

Key Performance Metrics

Core Metrics

95 %	98 %	92 %	4 s/fruit
Detection Success	Ripeness Accuracy	Picking Success	Picking Speed

Technical Specifications

Dimensions & Weight

Property	Value
Dimensions (L*W*H)	200 x 200 x 810 mm
Weight	30 kg
Arm Reach	420 mm
Maximum Load	3 kg

Operational Parameters

- Max running speed: 1023 mm/s
- Degrees of freedom: 4
- Detection precision: < 5 mm
- Fruit damage rate: < 1%

Power & Safety

Safety Systems

Collision Detection • Active Emergency Braking

Power Requirements	DC 24V Battery, 220V AC