HIPERT

EDGE ARM

AI-DRIVEN ROBOTIC PICKING

Discover the power of AI on the edge—real-time intelligence designed for cluttered scenes and challenging environments. From advanced automation to predictive analytics, these technologies are transforming the future of industry with precision, speed, and adaptability.

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AI Vision Based System

Optimized for Industrial Automation

🧠 Vision Intelligence

• Object detection & recognition in complex scenes
• Real-time instance segmentation
• 6D pose estimation for precise manipulation

💰 Low-Middle Cost Sensors

• RGB - RGBD cameras
• No expensive hardware required
• Fast ROI for any company

⚡ Embedded Systems

• Real-time edge processing
• Lightweight, power-efficient
• Plug-and-play integration

🤖 Robotic System

• AI + perception + control integrated
• Intelligent and precise manipulation
• Multi-scenario adaptability

Advanced Technologies

🎯 AI Methods

Highly efficient neural network methods perform specialized atomic tasks, working collaboratively to solve complex multi-task robotic challenges.

📊 Synthetic Photorealistic Data

We generate AI datasets that push beyond real-world limits, powering smarter and more robust algorithms.

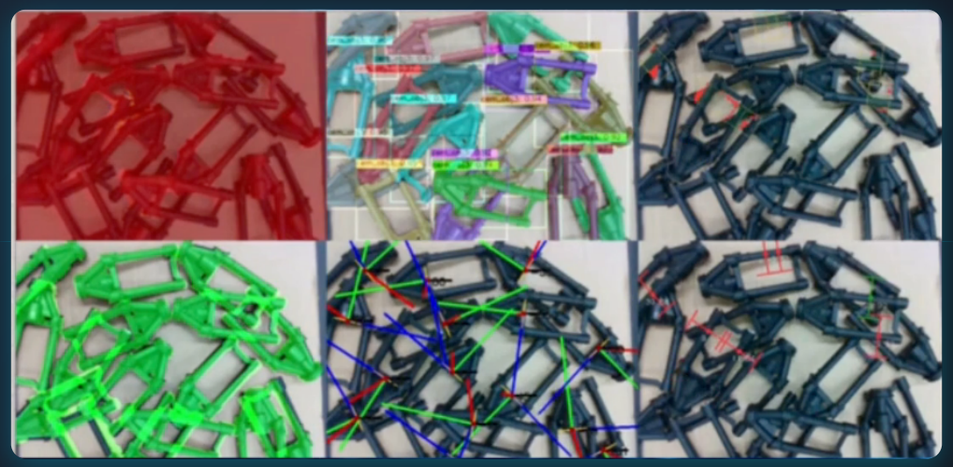
🔍 Instance Segmentation

Precise identification and segmentation of individual objects even in highly cluttered scenes.

📐 6D Pose Estimation

Accurate 3D position and orientation estimation for optimal grasp planning.





Proven Results

🎯 High Precision
Object recognition >95% accuracy in real industrial conditions with complex scenes

⚡ Real-Time Speed
Processing <500ms per frame, ideal for high-speed industrial applications

💪 Operational Robustness
24/7 operation in production environments with variable lighting conditions

🔄 Adaptability
Rapid deployment on new products and layouts without complex reprogramming



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Our Challenges

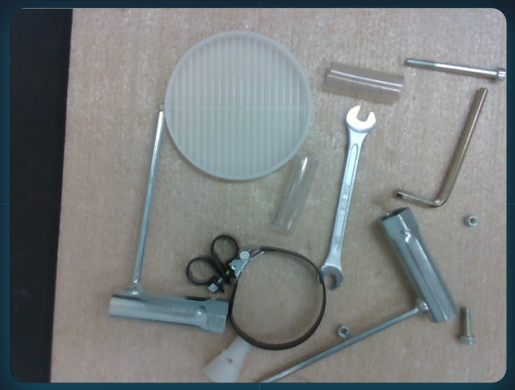
🗂️ Cluttered Scenes
Bin picking and warehouses with complex layouts that confuse traditional systems

✨ Reflective Objects
Metallic and glossy surfaces that create interference in standard sensors

🔄 Heterogeneous Scenes
Different materials (plastic, metal, organic) in the same operational environment

🍎 Soft Materials (Gentle)
Gentle manipulation required for fragile and deformable products






Contact & Partnership

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🚀 Request a Demo

Interested in revolutionizing your production processes?