



Tian Yi 2.0

Dual-arm coordination Efficient movement

Intelligent perception-based guidance, inspection and operation

One device, multiple uses

Remote operation One operator can control multiple machines



130 cm~165 cm

Height

60cm

Arm Span

35

Degree of Freedom

88.5kg

Weigh

>2hour

Battery Life

Degree of Freedom	Whole body*35, Head*3, Single arm*7, waist*2, Single leg*2, Bottom chassis*2, Dexterous hands*6*2
Camera	Head: RGBD*1 Bottom chassis: RGBD*2 RGB*1
Voice Modules	Linear MIC*4
External Communication	Wifi6, Ethernet, Bluetooth
Internal Communication	Whole-body CAN/EtherCA Bus Communication Control Speed: >400Hz
Battery Capacity	15 Ah 48 V
System Environment	Operation System:Ubuntu 22.04 Control Layer:ROS 2
Computing Power	NVIDIA Orin AGX 64 *1 275 TOPS
LiDAR	Single-line lidar*1

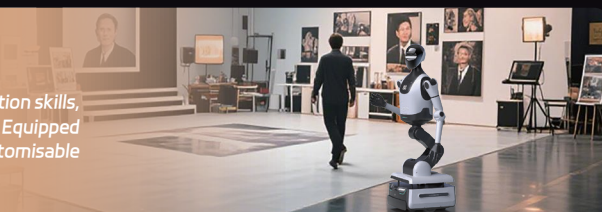
Autonomous Action

Utilising robotic arms and grippers, the system employs VLA's end-to-end large language model to automatically identify lifts. It autonomously navigates lift travel through operations such as button pressing and card swiping, requiring no equipment modifications. Coordinated with chassis movement, the robot independently performs common tasks encountered in daily operations, including transporting items, operating buttons, and opening/closing cabinet doors.



Patrol & Inspection

A wheeled-arm robot integrating multimodal perception capabilities and embodied manipulation skills, suitable for patrol and inspection duties in office environments, factories, and industrial sites. Equipped with visible light recognition and thermal infrared identification capabilities, it enables customisable object recognition through large-scale models at any time.



One device, multiple uses

The humanoid form offers greater universality; based on the same hardware, different functionalities can be achieved by selecting distinct software modules. This enhances the overall utilisation rate of the robot, i.e., 'night patrols and daytime reception duties'.



Remote Operation

Through VR equipment or a cockpit interface, operators can remotely control robotic chassis and arms to perform intricate tasks. A single operator could manage multiple robots, enabling human intervention to address abnormal incidents during inspections and handle emergencies. This technology also serves as a human substitute in hazardous environments within specialised industries, thereby safeguarding workers' safety.



Guided Tours & Conversations

Provide reception guidance and tour commentary services tailored to client requirements, enabling low-latency voice interaction. Capable of generalised Q&A based on client knowledge bases with sub-second response times, supporting interruptions and follow-up queries. Emotion-aware large language models recognise user gestures and facial expressions to proactively initiate interaction, delivering full-body motion responses.

