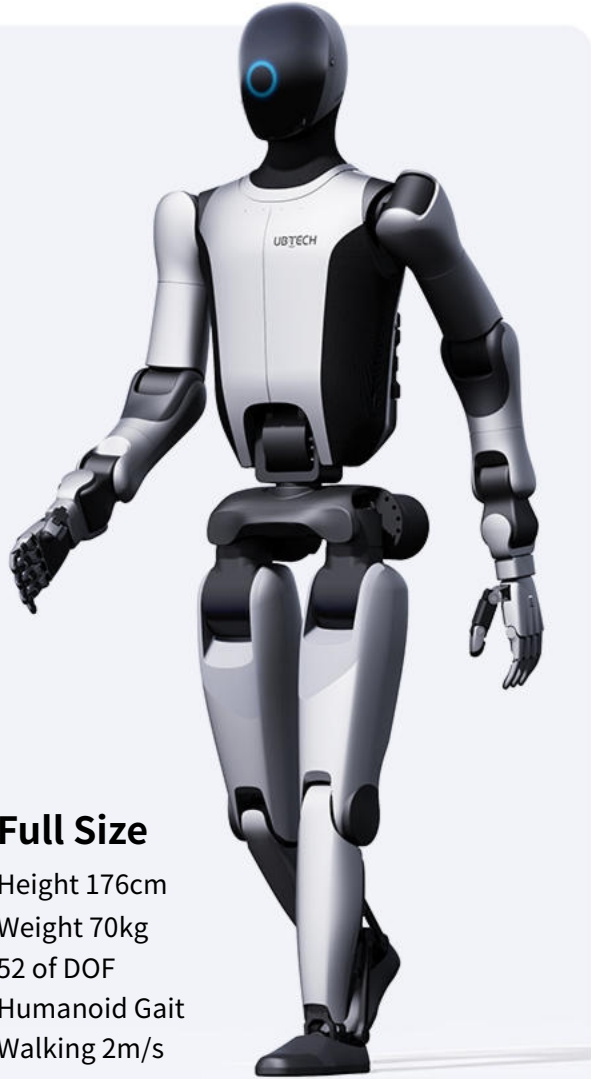


UBTECH New Generation  
of Industrial Humanoid Robot

# Walker S2

The World's First Humanoid Robot  
Capable of Autonomous Battery Swapping





### Full Size

Height 176cm  
Weight 70kg  
52 of DOF  
Humanoid Gait  
Walking 2m/s

### Flexible Waist

Pitch Angle:  
+90° to -35°  
Rotation Angle:  
±162°



### Perception & Interaction

Support LLM  
Voice Interaction  
4-inch Circular  
Facial Display  
4 Array Microphones  
2 Speakers



### Gen-4 Industrial Dexterous Hands

11 of DOF  
6 Tactile Sensors Array  
Single-hand Grasp: 7.5kg  
Finger Grasp: 1kg



### Innovative Materials

Rigid-flex  
Heterogenous  
Composite  
Aerospace-grade  
Aluminum Alloy  
3D Printed Primary Frame  
3D Knitted High-elastic  
Fiber Material



A white and black humanoid robot is shown in a factory environment. The robot has a white head and torso with black joints and limbs. It is standing on a black base and is interacting with a piece of industrial machinery on the right side of the frame. The background is a blurred industrial setting with metal structures and lights.

*The World's First*

**3** -Minute

*Autonomous Battery Swapping*

**24/7**

*Continuous Operation*

# Real-time Battery Monitoring Management Intelligent Power Replenishment

The dual-battery switching design enables Walker S2 to switch between dual-battery and single-battery working mode. By integrating the real-time battery monitoring management with battery swap stations, Walker S2 can autonomously choose battery swap or charge mode according to the task priorities, and achieve dynamic power management.





+162

Waist Rotation Angle

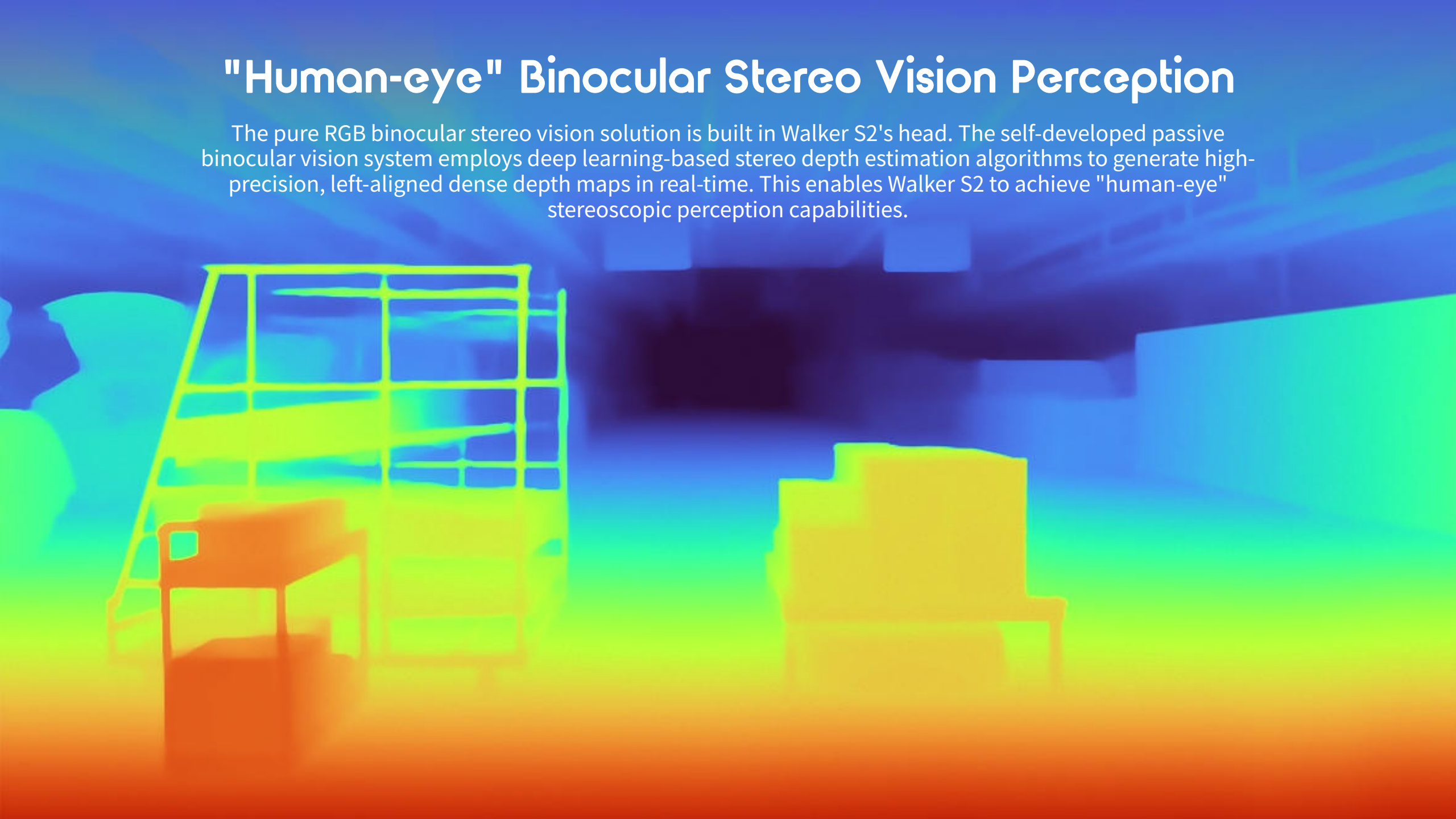


## Deep Squat and Stoop Lifting

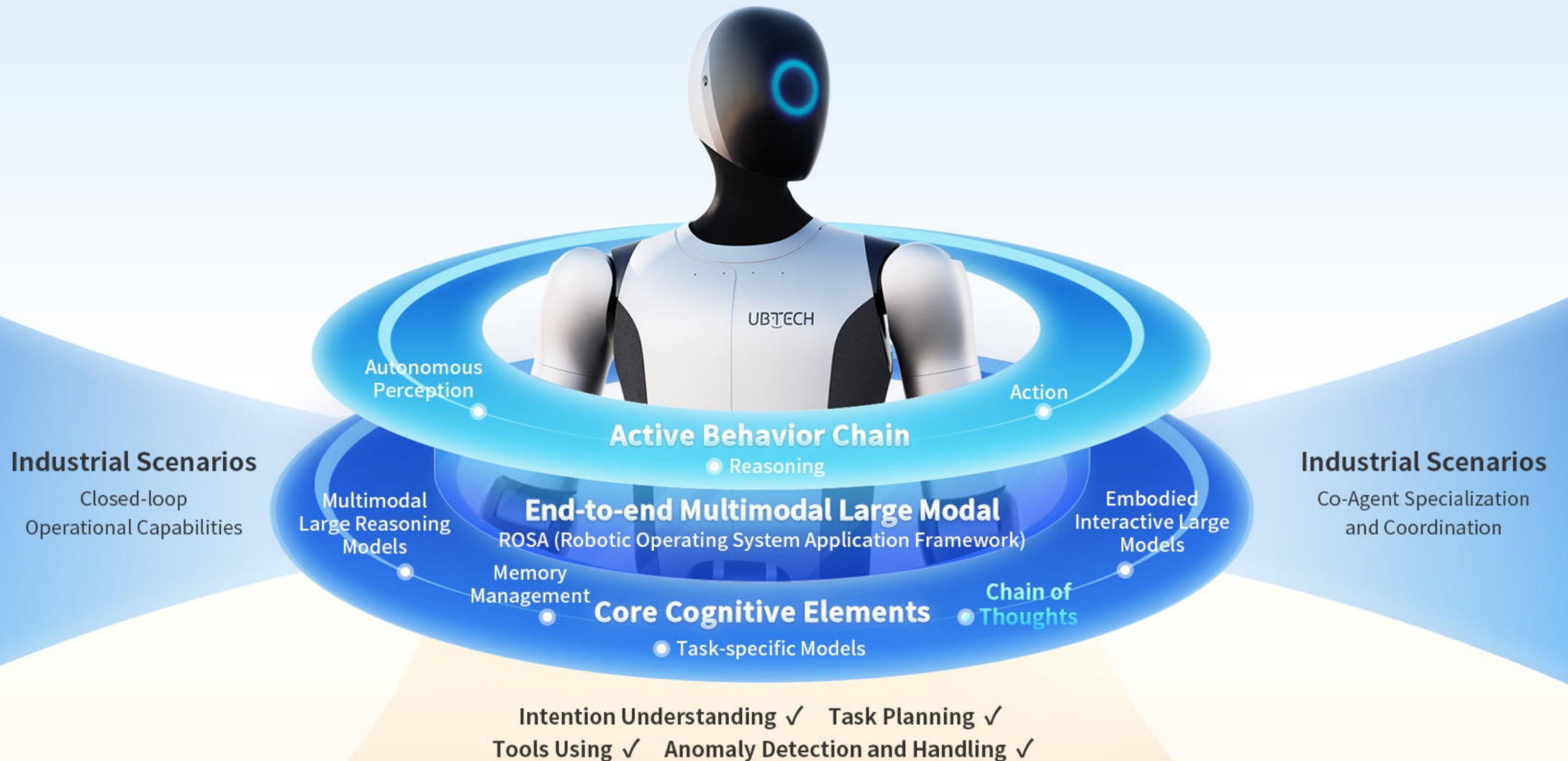
With the whole-body human-like dynamic balancing algorithm, Walker S2 can reach pitch  $170^\circ$  angle and handle 15kg payload within 0-1.8 meters workspace.

# "Human-eye" Binocular Stereo Vision Perception

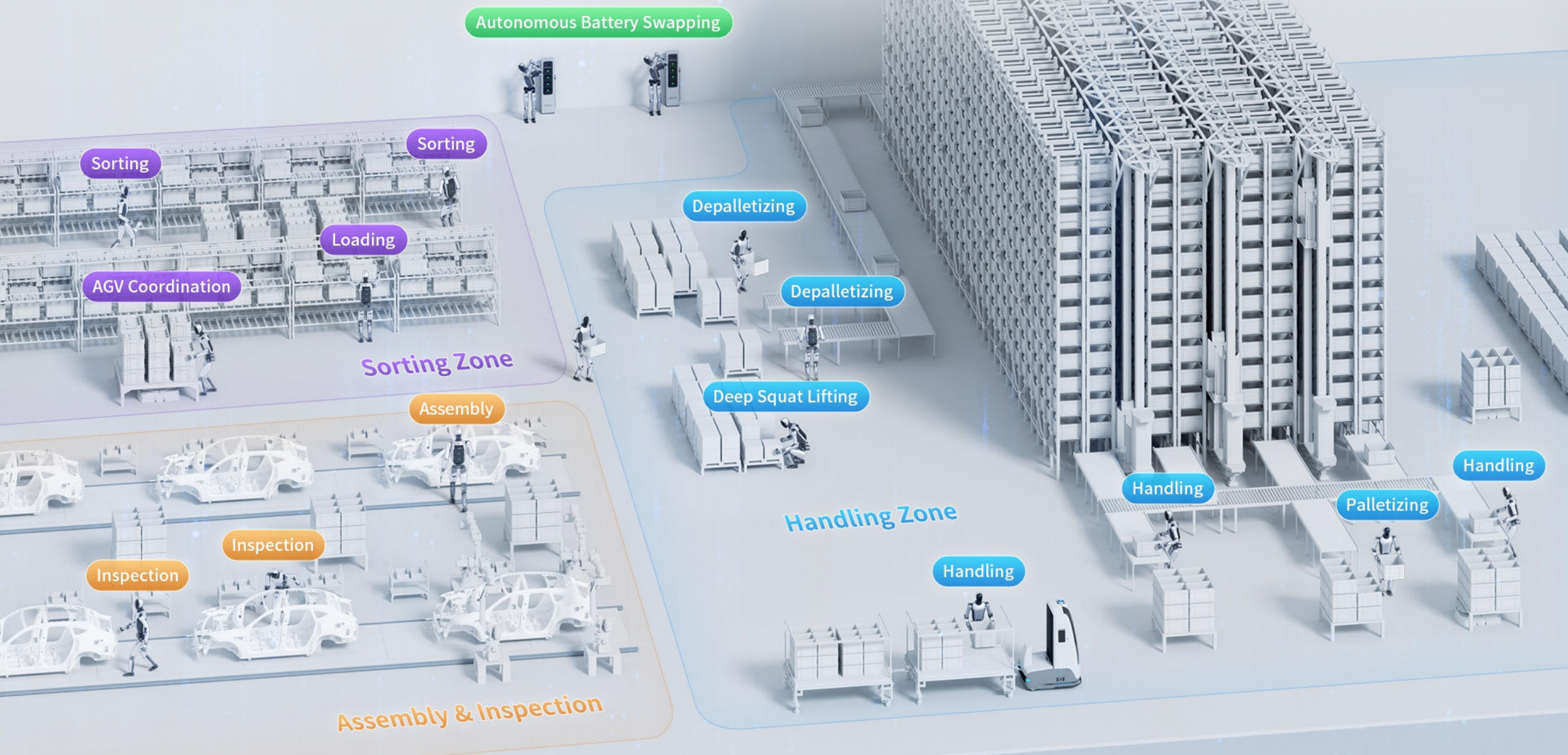
The pure RGB binocular stereo vision solution is built in Walker S2's head. The self-developed passive binocular vision system employs deep learning-based stereo depth estimation algorithms to generate high-precision, left-aligned dense depth maps in real-time. This enables Walker S2 to achieve "human-eye" stereoscopic perception capabilities.



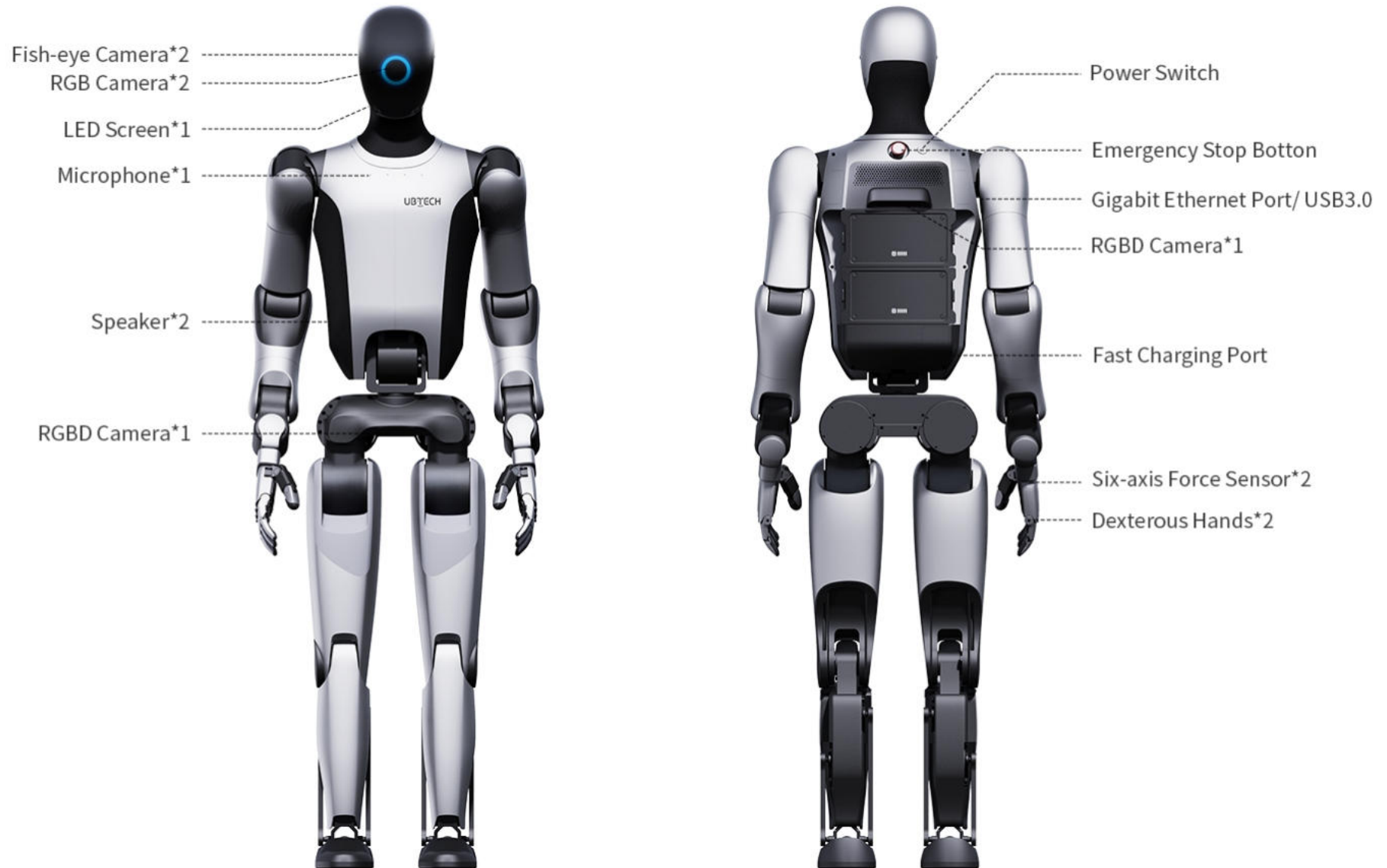
# UBTECH's Self-developed Co-Agent The World's First Industrial Agent for Humanoid Robot

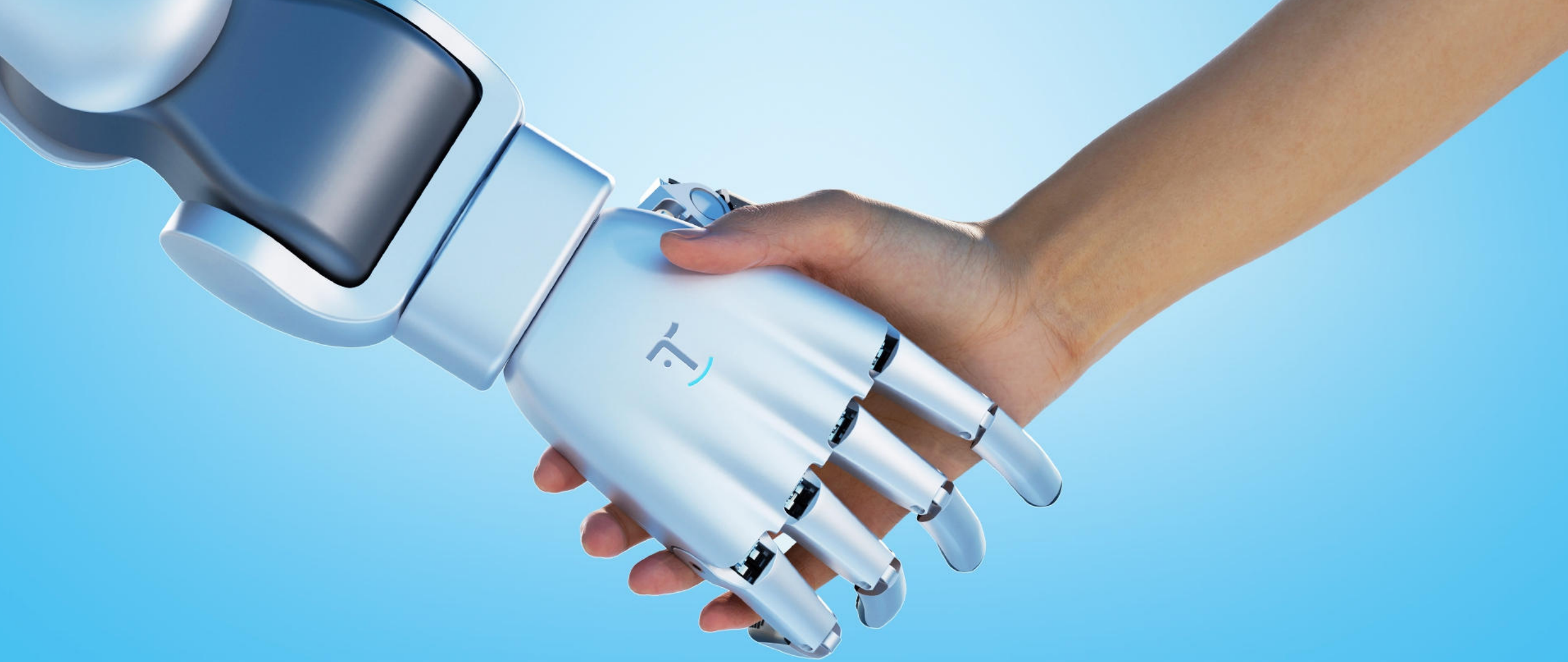


# Production Line Task-Driven Swarm Intelligence for Humanoid Robots "BrainNet 2.0" + Co-Agents Building the Dual-Loop AI System



# Product Specifications





**Dream with Robots**