

Specifications

Model	ATOM Max	ATOM-W	ATOM-D
Height	1650 mm	1772 mm	650 mm (upper body)
Weight (excl. end-effector)	approx. 58 kg	approx. 136 kg	approx. 26 kg
Whole-body DoF (excl. end-effector)	29	22	16
Head DoF	2		
Single-arm DoF (excl. end-effector)	7		
Waist DoF	1	4	-
Single-leg DoF	6	-	-
Arm reach (excl. end-effector)	600 mm		
Single-arm weight (excl. end-effector)	approx. 6.5 kg		
Rated single-arm payload (excl. end-effector)	3.5 kg		
Max single-arm payload (excl. end-effector)	5 kg		
Max arm end speed	1.5 m/s		
Audio	360° pickup mic × 1 + speaker × 2		
Max travel speed	1.5 m/s	1.5 m/s	-
Full-body hollow-joint cabling	Yes		
PC1	Intel 11th i5-1135G7@2.40GHz 8G RAM		
PC2	Intel i9-13900HX 64G RAM, Nvidia RTX 5000 Ada (FP32 GPU: 41.15 TFLOPS) 2TB Storage		
Battery life (per workload)	approx. 2 h	approx. 2 h	approx. 2 h
approx.	approx. 2 h	approx. 2 h	approx. 2 h
End-effector	6-DoF dexterous hand × 2		
Head sensors	Depth camera × 1 + HD stereo camera × 1		
Wrist sensors	Depth camera × 2		
Waist sensors	Depth camera × 2	Depth camera × 2	-
LiDAR	Head 3D LiDAR × 1	Chassis LiDAR × 2	-
Electrical interfaces	XT30×1, RJ45×2, Type-C×4, HDMI×1, GPIO×3 pairs		
Secondary development	Supported		
Warranty	1 year	1 year	1 year

*Specifications and configurations are subject to change; actual products shall prevail.



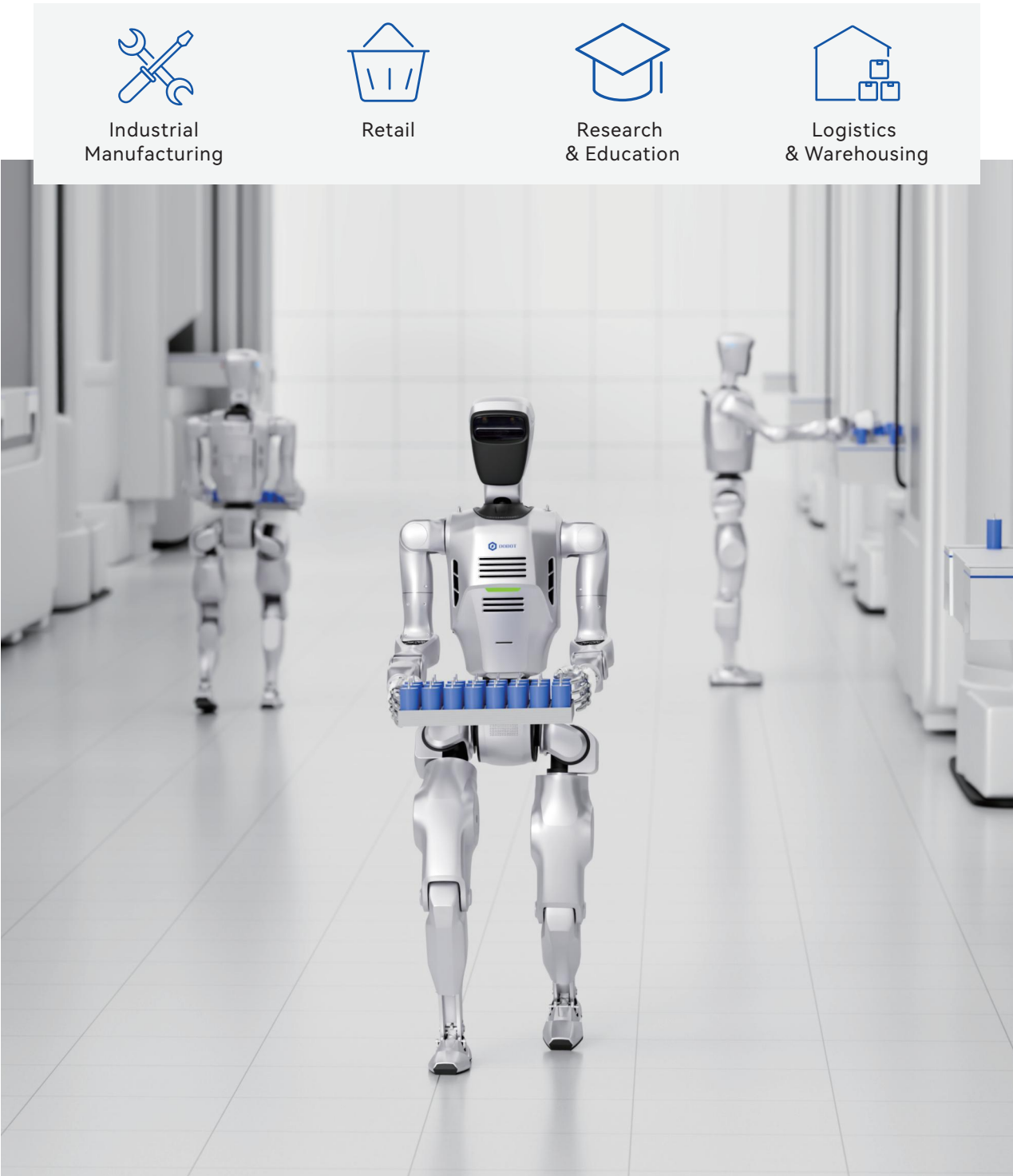
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DOBOT ATOM

World's first humanoid: dexterous manipulation + straight-knee walking

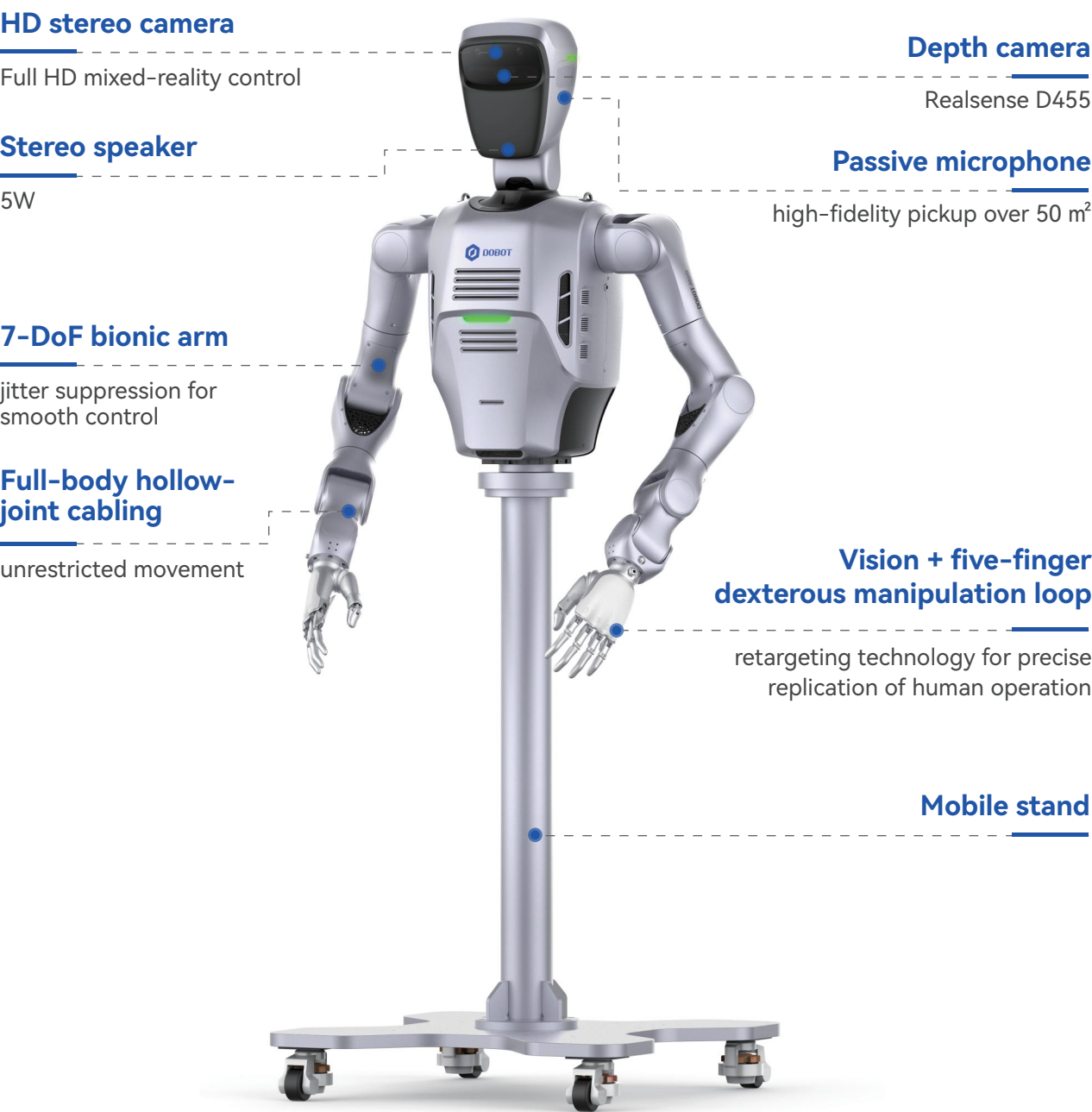
The World's First “Dexterous Manipulation + Straight-Knee Walking” Humanoid Robot

Dobot Atom targets repetitive industrial/commercial tasks: automotive parts staging, coffee shop multi-machine workflows, pharmacy after-hours dispensing. It handles varied equipment positions, multiple product specs, similar operations, and tight spaces with flexible turning.



ATOM D

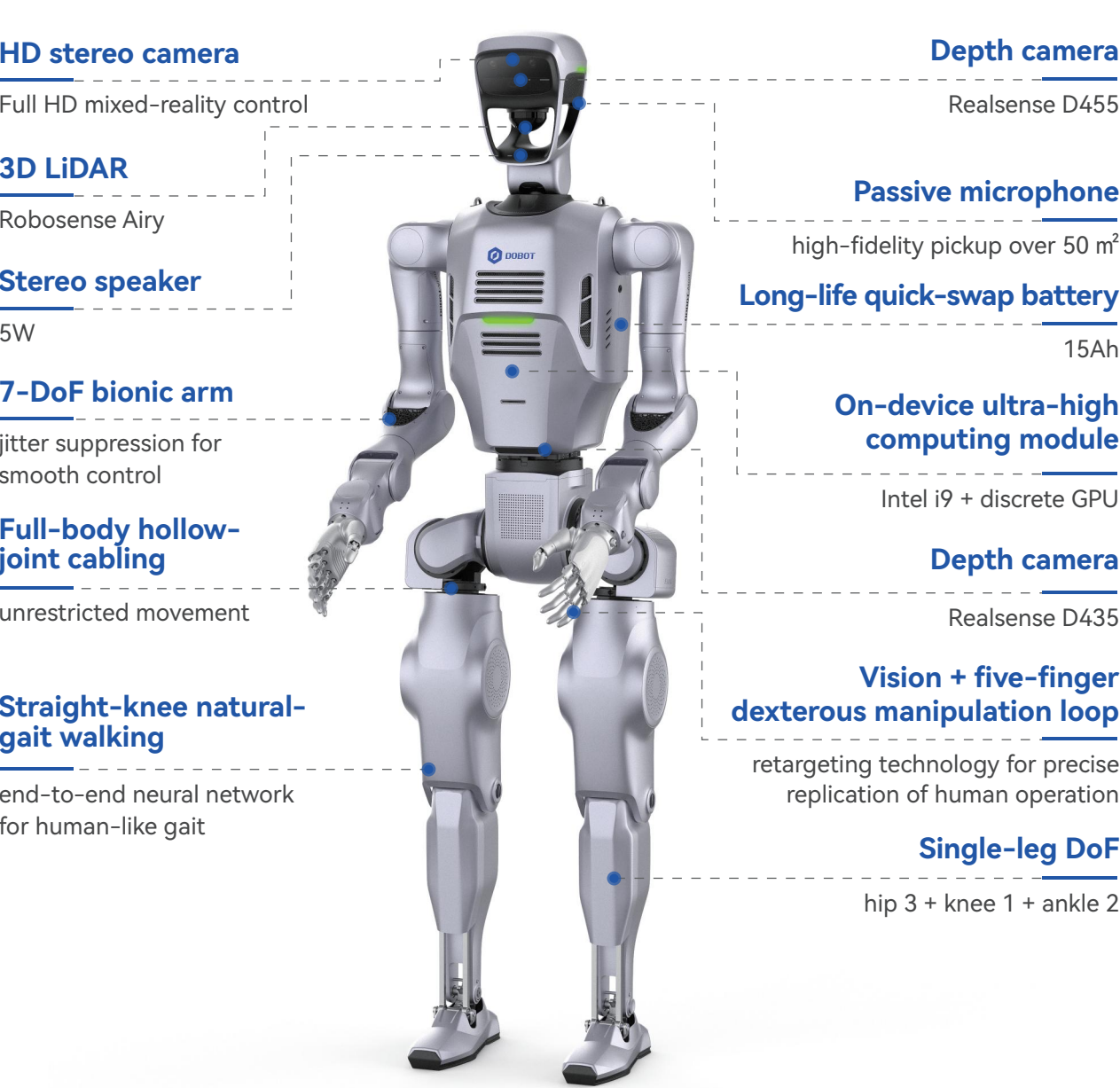
ATOM D: all-in-one embodied-AI data collection, training & deployment. 7-DoF arms + 2-DoF head + dexterous hands. Wrist/head depth cameras for VLA image capture. Included embodied data suite + built-in software for annotation, cleaning, lightweight training, one-click deploy. Complete workflow for teaching, research, real-world use.



ATOM D Education Edition Package List			
Robot upper-body unit	×1	Embodied-intelligence data suite (incl. embodied toolkit software, VR set, VR teleoperation software)	×1
Mobile stand	×1	Battery charger	×1
Battery pack	×1	Remote controller	×1
Dexterous hand	×2	Toolkit	×1
Wrist camera	×2	Adapter flange	×1
High-performance computing module (built into the robot)	×1	-	-

ATOM Max

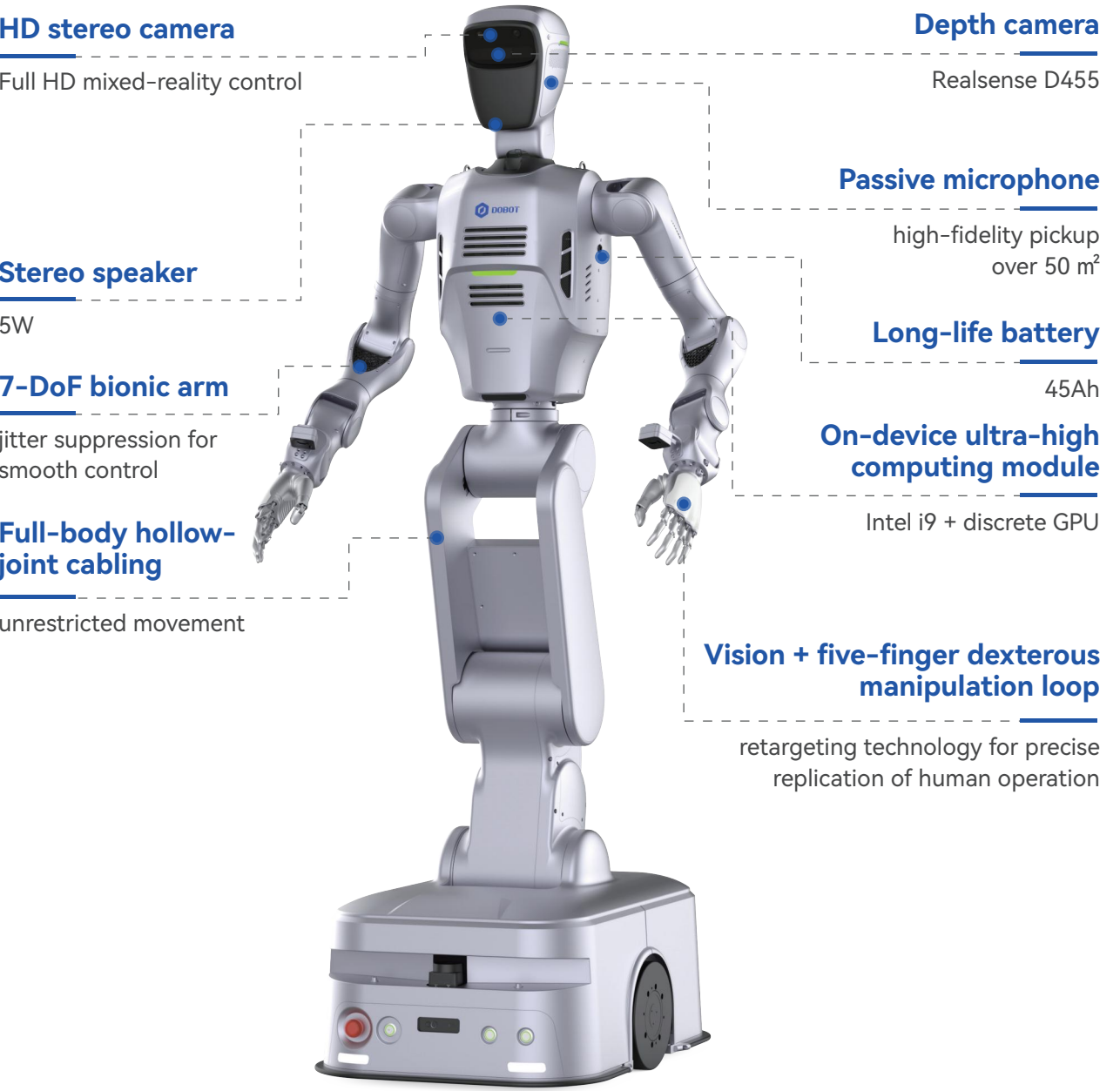
ATOM Max: 41 DoF, full dev interfaces & deployment guidance for research, education, commercial, industrial. 60 fps Full HD stereo face camera (reduces dizziness/jelly effect, VR/MR compatible). Top head: Intel Realsense D455 depth camera (6 m range). Onboard compute: 41.15 TFLOPS. Remote teleoperation with whole-body or split upper/lower control. Head: 360° LiDAR; wrists + waist: two depth cameras each – boosts precision and obstacle detection.



ATOM Max Education Edition Package List		ATOM Max Research Edition Package List	
ATOM Max unit (with dexterous hands)	×1	ATOM Max unit (without dexterous hands)	×1
Battery pack	×1	Battery pack	×1
Battery charger	×1	Battery charger	×1
Remote controller	×1	Remote controller	×1
Toolkit	×1	Toolkit	×1
Transfer frame (hoist)	×1	Transfer frame (hoist)	×1
Embodied-intelligence data suite (incl. embodied toolkit software, VR set, VR teleoperation software)	×1		

ATOM W

ATOM-W: industrial precision, stable autonomy, strong edge AI. Handles flexible manipulation & autonomous inspection. Turnkey solutions for industrial maintenance, new retail, etc. Includes scenario dev guidance – for teaching, training, research. Hardware: 7-DoF bionic arms, dual-LiDAR wheeled chassis (1.5 m/s). Perception: depth cams, HD stereo, 360° audio. Onboard: high-performance compute + DeepSeek LLM + VLA end-to-end reasoning. All-round embodied-AI platform for teaching & real deployment.



ATOM W Education Edition Package List	
ATOM W unit (with dexterous hands & wrist cameras ×2)	×1
Embodied-intelligence data suite (incl. embodied toolkit software, VR set, VR teleoperation software)	×1
Charging dock	×1
Remote controller	×1
Toolkit	×1

Embodied Toolchain

VR Teleoperation Software

Works with Quest 3, Vision Pro, etc. Ultra-low latency, high-precision end-pose mapping – high-fidelity remote control & data collection for embodied AI.



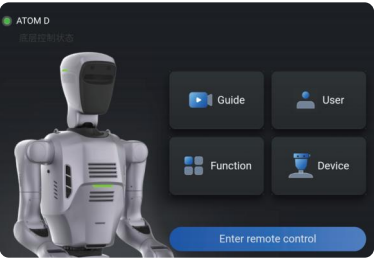
EmbodyLink

Embodied-AI data & training for ATOM. Full loop from teleoperation data to model deploy. Out of the box, no internet needed.



ATOM App

ATOM App: one-stop for remote control, O&M debugging, feature deploy. Efficient, worry-free.



Teaching & Application Resources

Professional Courseware

Curriculum built on humanoid core tech. Vocational track: hands-on, project-based, real-scenario training for technicians in robot operation, maintenance, data engineering. Undergraduate track: theory + R&D, embodied models + control theory – for advanced talent in robot app dev and embodied algorithm dev.



Practical Training Resources

Hardware module: real/virtual assembly, calibration, debugging, fault maintenance, tooling – builds hardware & engineering skills. AI & app module: training content & tools for embodied data collection, VLA training, RL + real deploy, ROS 2, embodied scenario dev.



Simulation & Development Resources

GitHub: DOBOT RL, control, motion planning, open-source code. Isaac Sim: virtual simulation, embodied pipeline, scene deployment, algorithm eval, OpenUSD assets. Hugging Face: DOBOT embodied-AI training datasets for multiple robots.



Embodied Application Scenarios



Super Factory

Heterogeneous collaboration of humanoid + quadruped + robotic arm, replicating a complete smart-factory line of sorting-transport-assembly.

Teaching value

Covers multi-agent scheduling and cross-platform system integration, oriented toward smart manufacturing and frontier robotics research.



SPS Parts Sorting

A wheeled humanoid robot reproduces the SPS feeding process 1:1, achieving full-pipeline work of part recognition-dual-arm sorting-precise feeding.

Teaching value

Integrates industrial vision, dual-arm force control and the SPS system, leading directly to core roles in automotive manufacturing and smart logistics.



Popcorn New Retail

An upper-body dual-arm humanoid robot autonomously completes the full popcorn workflow within a tabletop workspace – an end-to-end embodied-model engineering implementation.

Teaching value

Covers full-stack skills in visual perception and VLA model training and deployment, leading directly to core roles in embodied intelligence and smart manufacturing.



Smart Supermarket

A wheeled humanoid robot reproduces supermarket operations 1:1, providing closed-loop training across navigation-recognition-grasping-placement.

Teaching value

Connects SLAM, 6D pose estimation, grasp planning and multi-sensor fusion, matching the real needs of the retail and logistics industries.



Intelligent Guided Tour

A wheeled humanoid robot fuses the multiple modalities of speech + motion + navigation, deploys quickly with no props, and delivers an immersive guided-tour experience.

Teaching value

Covers SLAM, ASR/TTS and large-model applications, with skills that apply directly to commercial settings such as museums and exhibition halls.



Building Inspection

A wheeled humanoid robot autonomously completes the full inspection-detection-operation-reporting process, enabling unattended building O&M.

Teaching value

Connects visual inspection, anomaly diagnosis and closed-loop system design, matching the real needs of smart campuses and industrial inspection.