



OmniHand - OmniPicker

Dexterous Manipulation Portfolio



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Making Dexterity Real.

Engineering the dexterous hands that physical intelligence will run on.

For embodied AI to move from demonstration to deployment, robots need hands that can perceive, adapt, and operate in the unstructured complexity of the real world. AGILINK, part of AGIBOT, design and manufacture the dexterous manipulation systems that make this possible - from compact, high-DoF flagship hands to integrated solutions for research and industry.

Our work spans the full stack of dexterous manipulation: actuation, sensing, control, and the engineering judgment to balance them. Every product we release is built to be deployed, not just demonstrated.

8,000+

hands shipped

NO.1

dexterous hands market share, China Q1 2026

50,000+ hrs

of real-world manipulation data

Dexterous Manipulation. Built for the Real World.

From a 350-gram research-grade hand to a flagship 22-DoF system, our portfolio covers the full range of dexterous manipulation needs — research, embodied AI training, industrial deployment, and education.

Every system is engineered around a shared architecture: unified SDKs, consistent control interfaces, and the same standard for reliability under continuous duty.

All products in the OmniHand and OmniPicker series are in active production and deployed across industries.



Embodied AI



Service Robotics



Education



Industrial Automation

*AGILINK is part of the AGIBOT Group. Our products are manufactured using AGIBOT's production infrastructure and supply chain.



OmniHand 3 Ultra-M

Flagship direct-driven dexterous hand

20 active degrees of freedom in 630g, human-scale form factor. Engineered for continuous-duty research, embodied AI training, and the experiments that will define the new era of manipulation.

Designed for embodied AI training, teleoperation&demonstration capture,and bimanual contact-rich manipulation research.



Open & Compatible

ROS

NVIDIA
OMNIVERSE

MuJoCo

GAZEBO

*SDK in Python and C++

Features and Benefits

Form Factor & Strength
20 active DoF in **630g**, human-scale build - the highest force density in its category.

Continuous-Duty Reliability
40-45 °C surface temperature under continuous load with no throttling.500k validated cycles.

Clean Data, by Design
Direct-drive at every joint. ±0.2mm repeatability across the full workspace, with joint state read directly from each actuator's encoder — a hand controller and learned policies can trust as ground truth.

Vision-Based Tactile Sensing
Three-dimensional force vectors with 0.08mm deformation precision across a 0-30N range — enough to distinguish slip from contact, edge from surface.

Specifications

Degrees of Freedom	Dimensions	Weight	Payload	
20 Active	189.5*88.5*40mm	630g	3kg stable grasping	8kg lifting
Opening/ Closing Time (Typ.)	Repetitive Positioning Accuracy		Communication Interface	
0.3s	±0.2mm		CANFD/ RS485/ Ethernet	

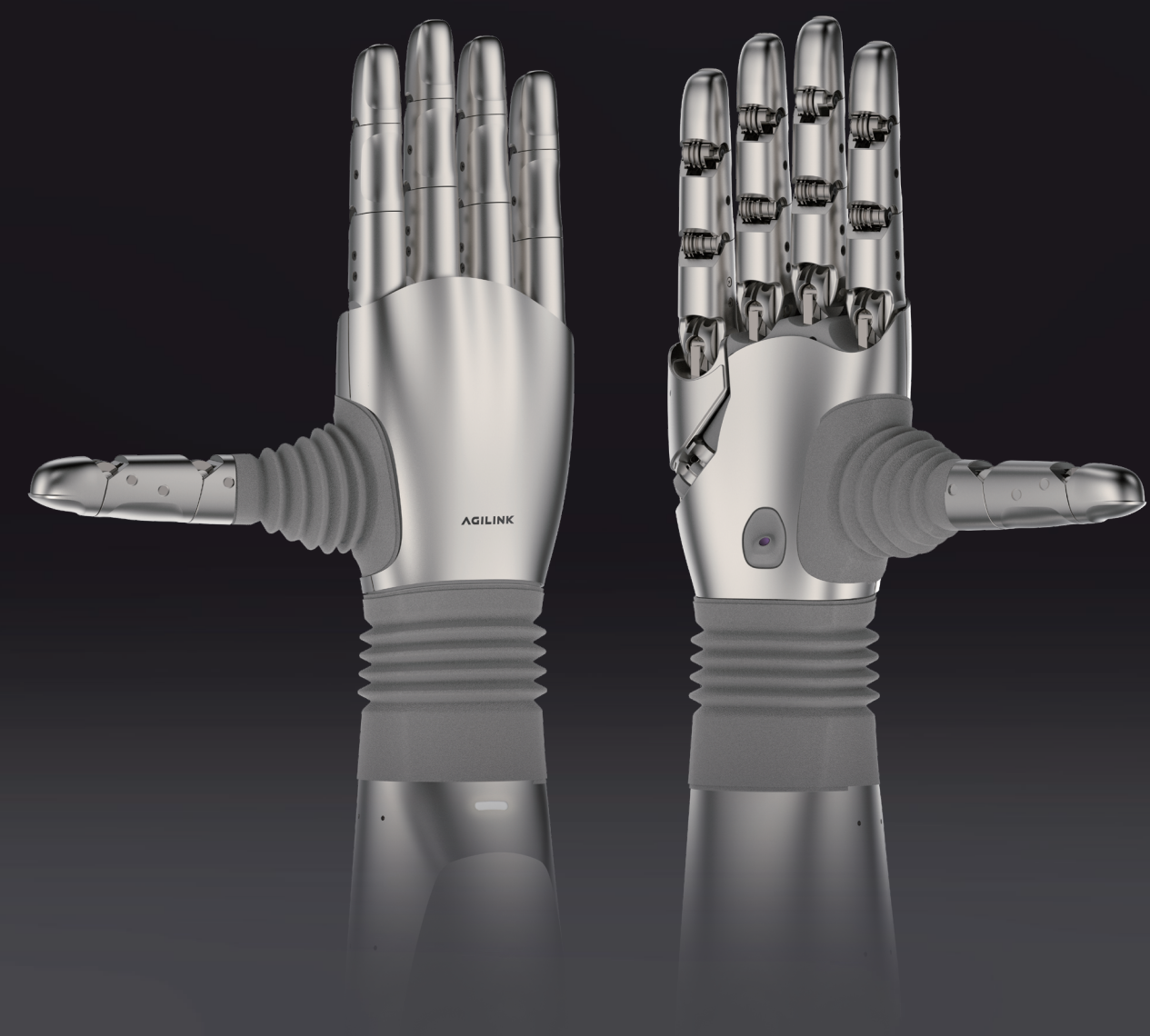
Tactile Sensor	Palm			
	Sensing Approach	Force Sensing Resolution	Number of Tactile Pixels	
	3D tactile sensor	0.1N	300	
Fingertip				
Sensing Approach	Force Detection Range	Force Sensing Resolution	Spatial Resolution	Deformation Field Accuracy
Vision-based tactile				
3D+6D	0-30N	0.005N	0.04mm	0.08mm
3D distributed force+6D resultant				

OmniHand 3 Ultra-T

Flagship tendon-driven dexterous hand

22 active degrees of freedom plus a 3-DoF wrist, in a 500-gram,1:1 human-scale form factor. Engineered for dexterity,range of motion,and tactile sensitivity that close-contact manipulation demands.

Designed for industrial deployment,contact-rich assembly,and dexterous manipulation tasks that require human-like reach and feel.



Features and Benefits

Human-Scale Dexterity

1:1 human-scale design with 25 DoF and a cross-axis wrist,enabling high flexibility and an extended range of motion.

Agile & Lightweight

Fast actuation (0.3s) combined with a lightweight 500g structure for dynamic and efficient movement.

Powerful & Precise Control

1:10 weight-to-payload ratio with sub-Newton force control,supporting both high-strength tasks and delicate manipulation.

Vision-Tactile Perception

Full-hand distributed 3D tactile sensing (0.01N resolution) integrated with an in-palm camera for fine-grained interaction.

Industrial-Grade Reliability

Million-cycle durability,validated through rigorous testing, with a quick-replace tendon system for maintainability.

Specifications

Hand Weight

500g

Full Assembly

~1.7kg
with forearm drive

Degrees of Freedom

22 + 3

Communication Interface

CANFD/ Ethercat

Control Modes

Force•Position•Velocity•Hybrid

Cycle Time

0.3s

Open & Compatible

ROS

NVIDIA OMNIVERSE

MuJoCo

GAZEBO

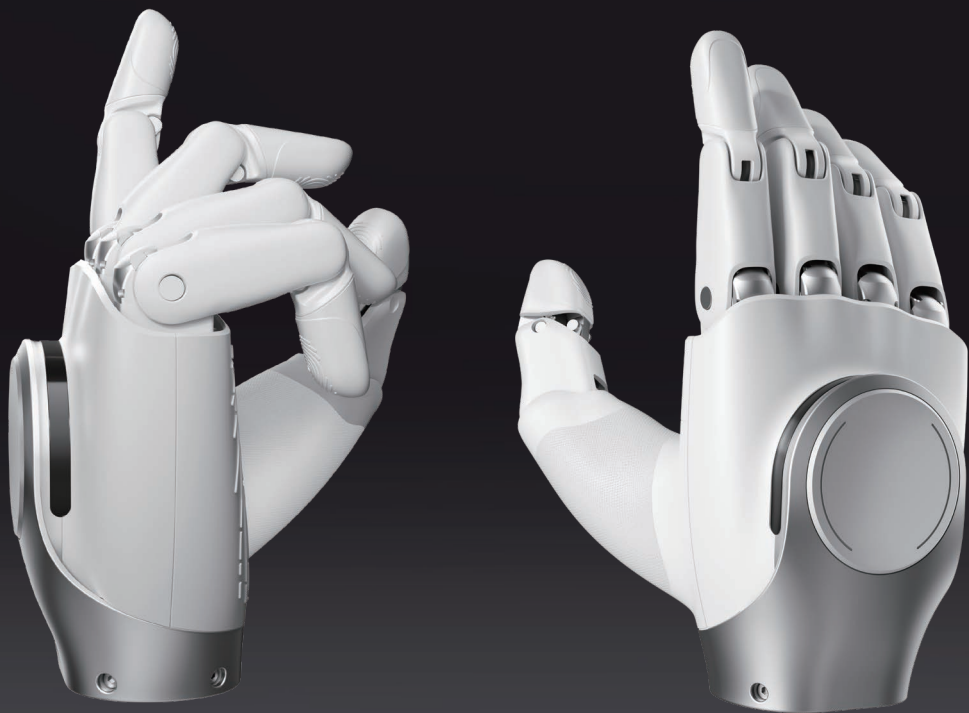
*SDK in Python and C++

OmniHand

Standard · Versatile · Widely Deployed

OmniHand brings 16 degrees of freedom into a compact, lightweight form factor - engineered to integrate seamlessly across humanoid platforms, mobile manipulators, and research environments. Distributed tactile sensing, multi-modal interaction capability, and a price point built for scale make OmniHand the standard hand for programs that need dexterity at every step.

In active deployment across humanoid robotics, service applications, and academic research worldwide.



Features and Benefits

Built for Scalable Deployment

Compact, lightweight (510g), and designed for seamless integration with leading humanoid platforms and mobile manipulators. A standard hand engineered for programs that scale.

Versatile Interaction

10 active DoF plus 6 passive — covering common gestures, full grasp coverage, and an exclusive back-of-hand touch interaction. Built for human-robot collaboration that goes beyond grasping.

Distributed Tactile Sensing

Over 300 force-sensing taxels across the fingertips, palm, and back of hand, with an anti-pinch design for safe, gentle interaction with people and objects.

Specifications

Degrees of Freedom 10 + 6 active passive	Dimensions 180*85*38.5mm	Weight 510g	Payload 2kg 5kg stable grasping lifting
Opening/ Closing Time (Typ.) 0.5s	Repetitive Positioning Accuracy ±0.3mm	Sensing Approach (w/ Tactile) 1D	Force Sensing Resolution (w/ Tactile) 0.1N

Compatibility : Mainstream humanoid robots and robotic arms · Dex-UMI · ROS 2 · SDK in Python and C++

Application Scenarios

Human-Robot Interaction



Gesture engagement, service tasks, friendly co-operation

Education Curriculum Development



Accessible platform for learning manipulation and prototyping projects

Mobile & Service Robotics



Light-duty grasping for delivery, hospitality, and assistance

OmniHand 3 Lite

Compact · Robust · Accessible

OmniHand 3 Lite measures 140*70*32mm, about the size of a computer mouse. At 350 grams, it brings full dexterous manipulation into half-scale humanoid platforms, mobile manipulators, and developer ecosystems that previously had no choice but grippers.

Validated through rigorous impact and drop testing, Lite stays reliable through dynamic motions - including single-arm cartwheels and full-body acrobatics that traditionally require removing the hands. Natively compatible with Dex-UMI data-collection systems, supported by an open-source kit and toolchain — built for rapid integration, prototyping, and large-scale developer programs.



Features and Benefits

Designed for Half-Scale Humanoids

The **smallest** production-grade dexterous hand today, built for half-scale humanoids, mobile manipulators, and compact service robots — where full-size hands have never fit.

Built to Stay On the Robot

Aerospace-grade metal frame with one-piece silicone overmold. Validated through impact, drop, and collision testing — supporting cartwheels, acrobatics, and falls with the hand staying assembled.

Open Developer Platform

Dex-UMI compatible, optional wrist-mounted camera, and a fully open-source toolkit. Built for rapid prototyping, classroom adoption, and developer programs.

Specifications

Degrees of Freedom	Dimensions	Opening/ Closing Time (Typ.)	Payload
4 + 7 active passive	140*70*32mm	0.5s	1kg stable grasping
Repetitive Positioning Accuracy	Communication Interface	Weight	
±0.5mm	CANFD/ RS485	350g	

Compatibility: Half-scale humanoid platforms · Mobile manipulators · Dex-UMI · Open-source kit · ROS 2

Application Scenarios

Service Robotics



Hospitality, healthcare, and food service deployments

Mobile Manipulation



Inspection, delivery, and Last-mile dexterous manipulation

Educational Platforms



University programs, robotics competitions, student projects

OmniPicker 3

Industrial Gripper · Engineered for Embodied Intelligence

OmniPicker 3 brings industrial reliability and force-aware sensing into a single tool — engineered for the embodied AI training pipelines,contact-rich operations,and high-volume manipulation tasks that the next generation of automation requires.

Validated through long-horizon deployments across logistics, retail,and data-collection programs — at a price point built for production scale.



Features and Benefits

Industrial Performance, Reimagined for Embodied AI

140N gripping force validated through 1 million full-load cycles — industrial reliability built for the manipulation tasks that learning-based systems demand.

Adaptive, Force-Aware Grasping

Fingertip tactile sensing across the gripping surface with 0.1N force resolution,— handling standard parts, irregular shapes, and delicate objects through adaptive force control.

Open Data-Collection Ecosystem

Native compatibility with Dex-UMI and optional depth or fisheye camera integration.Built for high-quality manipulation data collection and the training pipelines embodied AI requires.

Specifications

Max Force 140N	Max Stroke 120mm	Communication Interface CANFD/ RS485
Maximum Payload 5kg	Repetitive Positioning Accuracy ±0.1mm	Weight 600g

Compatibility :Mainstream robotic arms · UMI · Optional depth / fisheye camera · ROS 2 · SDK in Pythonand C++

Application Scenarios

Industrial Sorting Logistics



Pick-and-place, parcel handling,and warehouse automation.

Embodied AI Data Collection



High-volume demonstration capture and force-rich manipulation data.

Production-Grade Deployment



Long-horizon retail, e-commerce,and operations programs running continuous workflows.