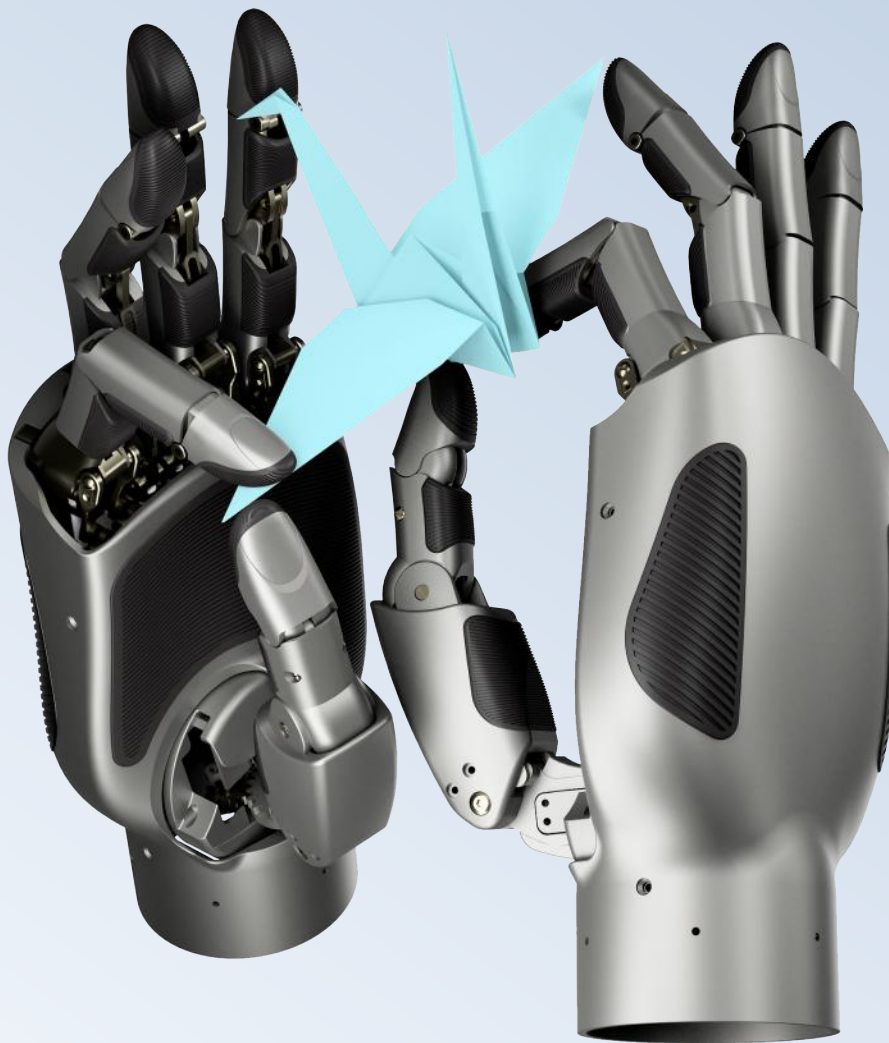


Dexterous Hand for Embodied Intelligence

CLEVER HANDS CREATE EVERYTHING



Linker Hand

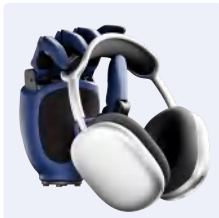
Linker Hand O6

• 6 Active + 5 Passive DOF

• Linkage Transmission

Linker Hand O6 is a high-precision bionic dexterous hand launched by Linker Hand to address the market's urgent demand for **cost-effective** solutions.

Featuring 6 active joints + 5 passive joints, it delivers **strong gripping force**, **high-precision force control**, **compact size**, and **light weight**—ideal for **logistics handling**, **industrial assembly**, and **irregular object grasping**.



Key Features

Strong Gripping Force

Equipped with self-developed high-torque servo motor modules and worm gear drive structure, it ensures high rigidity while achieving greater gripping force with high drive efficiency.

High-Precision Control

Adopts a high-precision servo rigid linkage transmission system, self-developed high-precision joint modules, and optimized force-position hybrid control algorithm, enabling $\pm 0.2\text{mm}$ repeat positioning accuracy for reliable, precise movements.

Edge-Cloud Integration

Uses innovative materials for ultra-lightweight design (only 370g). The servo motor module integrates drive and control functions, resulting in a compact structure that matches human hand size—supporting flexible operations and easy compatibility with collaborative robotic arms, service robots, and other systems to boost integration flexibility and motion efficiency.



Piezoresistive
Sensors
(Optional)



Capacitive
Sensors
(Optional)



Vision
(Optional)



Visual-Tactile
Perception
(Optional)

Communication Methods

CAN Interface

Utilizes a proprietary protocol; baud rate is 1Mbps; default device IDs: left hand 0x28, right hand 0x27; supports broadcast ID 0xFF (for addressing, identification, and debugging).

RS485 Interface

Adopts the Modbus protocol; baud rate is 115200bps; default device IDs: left hand 0x28, right hand 0x27; supports function codes: 03/04/06/16; UART settings are fixed: 8 data bits, 1 stop bit, no parity.



Linker Hand

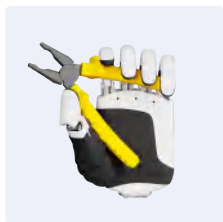
Linker Hand L6

• 6 Active + 5 Passive DOF

• Linkage Transmission

The L6 is a **high-precision** bionic robotic hand, further enhancing its accuracy, response speed and operational capabilities. Through its self-developed joint modules combined with **linkage transmission**, it achieves high rigidity while maintaining only 618.5g weight.

It can easily handle every scenarios whether delicate operations in **precision assembly** or **flexibly grasping irregularly shaped objects**, continuously pushing the application limits of bionic robotic hands.



Key Features

Compact and lightweight design

Weighing only 618.5g, the compact structure seamlessly integrates with collaborative robotic arms, service robots, and various systems, significantly enhancing integration flexibility and motion efficiency.

High-Precision Control Capability

Equipped with a high-precision servo-driven rigid linkage system and proprietary joint modules to achieve $\pm 0.2\text{mm}$ repeatability, ensuring precise and reliable operation in every movement.

Rapid Response Performance

0.35 second ultra-fast opening/closing response, combined with independent thumb movement control and synchronized four-finger precision actions, delivers human-like flexible operation.



Piezoresistive Sensors
(Standard)



Capacitive Sensors
(Optional)



Vision
(Optional)



Visual-Tactile Perception
(Optional)

Communication Methods

CAN Interface

Utilizes a proprietary protocol; baud rate is 1Mbps; default device IDs: left hand 0x28, right hand 0x27; supports broadcast ID 0xFF (for addressing, identification, and debugging).

RS485 Interface

Adopts the Modbus protocol; baud rate is 115200bps; default device IDs: left hand 0x28, right hand 0x27; supports function codes: 03/04/06/16; UART settings are fixed: 8 data bits, 1 stop bit, no parity.



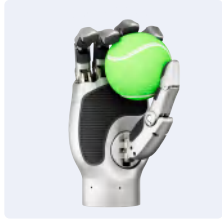
Linker Hand

Linker Hand L20 Lite

• 10 Active + 10 Passive DOF

• Linkage Transmission

Linker Hand L20 Lite is a high-performance dexterous hand with 20 DoFs. Equipped with **self-developed motors** and **linkage transmission mechanisms**, it ensures traction stability while enabling precise control and smooth movement. Widely used in **education** & **research**, **piano performance**, **household assistance**, and **elderly care**, it drives the advancement and implementation of intelligent robots and human-robot collaboration. It supports **multi-modal environmental perception** via various sensors and is compatible with ROS/QT environments (with standard ROS plugins for secondary development).



Key Features

Highly Bionic Multi-DoF Design

20 DoFs (10 active + 10 passive) enable accurate simulation of human hand movements and fine operations, supporting adaptive object grasping and complex tasks.

Multi-Modal Perception & Intelligent Interaction

Configurable with cameras, electronic skin, and other sensors to build a full-range "vision + touch" perception model—enhancing environment understanding and interaction capabilities for unstructured scenarios.

Edge-Cloud Integration & No-Code Deployment

Leverages edge-cloud architecture for one-click skill deployment from cloud libraries, reducing usage barriers and improving development efficiency.

High-Reliability Structure & Data Support

Self-developed motor and linkage system resists impact and damage, adapting to high-intensity scenarios like embodied intelligence training. It supports efficient data collection for data farm construction and algorithm optimization.



Piezoresistive
Sensors
(Standard)



Capacitive
Sensors
(Optional)



Vision
(Optional)



Visual-Tactile
Perception
(Optional)

Communication Methods

CAN Interface

Utilizes a proprietary protocol; baud rate is 1Mbps; default device IDs: left hand 0x28, right hand 0x27; supports broadcast ID 0xFF (for addressing, identification, and debugging).

RS485 Interface

Adopts the Modbus protocol; baud rate is 115200bps; default device IDs: left hand 0x28, right hand 0x27; supports function codes: 03/04/06/16; UART settings are fixed: 8 data bits, 1 stop bit, no parity.



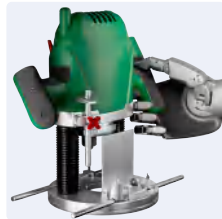
Linker Hand L20

• 16 Active + 5 Passive DOF

• Linkage Transmission

Linker Hand L20 is a 21-DoF dexterous hand that **accurately simulates natural human hand grasping** with delicate operations. It adopts innovative **linkage transmission** and **self-developed motors** for high-precision movement, and supports **force, vision, and tactile sensors**—enhancing environmental adaptability and intelligent interaction via **multi-modal perception**.

With high DOFs, multi-modal perception, and force-position hybrid algorithms, it is widely used in **education & research, industrial automation, household assistance,** and elderly care—providing precise, dexterous operation solutions.



Key Features

Highly Bionic DOFs & Fine Operations

21 DOFs (16 active + 5 passive) mimic human hand movements and grasping to meet complex, fine operation requirements.

Multi-Modal Perception & Intelligent Interaction

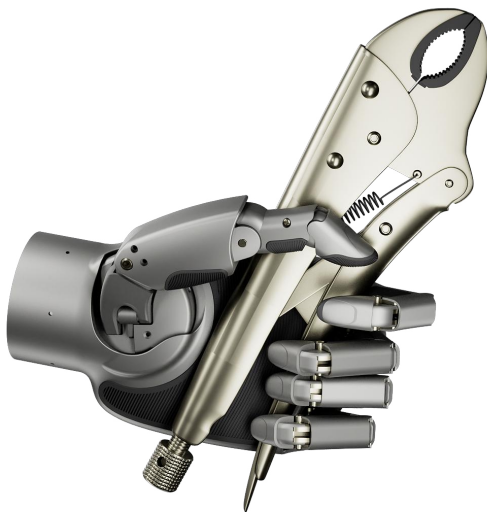
Configurable with force and electronic skin sensors to accurately detect contact force, object shape, and close-range images—boosting environmental adaptability and interaction intelligence.

Edge-Cloud Integration & No-Code Deployment

One-click skill deployment from cloud libraries via edge-cloud architecture, lowering thresholds and improving efficiency.

High Reliability & Data Support

Robust structure resists impact, adapting to high-intensity training and industrial scenarios. It supports self-developed data collection for data farm construction and algorithm optimization.



Piezoresistive
Sensors
(Standard)



Capacitive
Sensors
(Optional)



Visual-Tactile
Perception
(Optional)

Communication Methods

CAN Interface

Utilizes a proprietary protocol; baud rate is 1Mbps; default device IDs: left hand 0x28, right hand 0x27; supports broadcast ID 0x7FF (for addressing, identification, and debugging).

RS485 Interface

Adopts the Modbus protocol; baud rate is 256000bps; default device IDs: left hand 0x28, right hand 0x27; supports function codes: 03/04/06/16; UART settings are fixed: 8 data bits, 1 stop bit, no parity.



Linker Hand

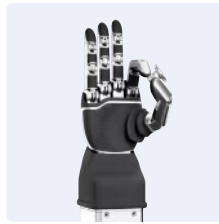
Linker Hand L30

• 17 Active + 4 Passive DOF

• Tendon Drive

Linker Hand L30 is a 21-DoF dexterous hand that **accurately replicates fine human hand movements** with **millimeter-level** operation precision. It adopts advanced **tendon drive** and **highly integrated mechatronic systems** for stable movement and precise control, and supports multi-modal perception (**force, touch, vision**) to enhance real-time perception and interaction reliability.

With high DoFs, multi-modal perception, and leading motion control algorithms, it is widely used in **industrial automation, medical assistance,** and **research experiments**—providing a highly adaptable, reliable end-effector solution.



± 0.20 mm

Repeat Positioning
Accuracy

2 kg

Maximum Load
Capacity

4 N

Maximum Thumb
Tip Force

3.5 N

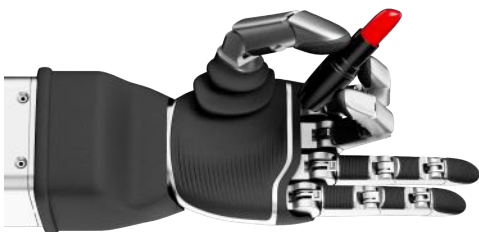
Peak fingertip force
(four-finger)

440°/s

Maximum
Movement Speed

6 N

Grasping Force
Resolution



Key Features

Highly Bionic Precise Operation

21 DoFs (17 active + 4 passive) with independent control of thumb and four fingers, enabling accurate replication of fine human hand movements, high repeat positioning accuracy, and delicate gripping force resolution—suitable for precision tasks.

Fast-Response Tendon Drive

Advanced tendon drive and highly integrated mechatronic systems ensure smooth movement and high maximum speed to meet fast-response needs, while achieving lightweight and high compactness for robotic end-effectors.

Multi-Modal Intelligent Interaction

Supports fusion of force, touch, and other sensors to accurately perceive the environment and provide real-time interaction feedback—greatly enhancing adaptability and collaboration in unstructured scenarios.



Piezoresistive
Sensors
(Standard)



Capacitive
Sensors
(Optional)

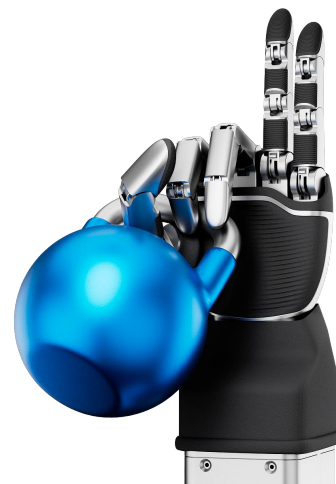


Visual-Tactile
Perception
(Optional)

Communication Methods

CAN FD Protocol

High transmission rate (up to 5Mbps) for fast response; Supports 64-byte data per frame to handle more sensor data and joint control commands simultaneously; Enhanced mechanisms (e.g., improved CRC check) for higher communication reliability.



Linker Hand



Linker Hand
O6



Linker Hand
L6



Linker Hand
L20 Lite



Linker Hand
L20



Linker Hand
L30

Degrees of Freedom	11	11	20	21	21
Number of Joints	6 Active + 5 Passive DoF	6 Active + 5 Passive DoF	10 Active + 10 Passive DoF	16 Active + 5 Passive DoF	17 Active + 4 Passive DoF
Transmission Method	Linkage Drive	Linkage Drive	Linkage Drive	Linkage Drive	Bionic Tendon Drive (Tendon-Driven)
Drive Method	Self-Developed Joint Module	Self-Developed Joint Module	Self-Developed Joint Module	Self-Developed Joint Module	Self-Developed Joint Module
Control Interface	CAN/RS485	CAN/RS485	CAN/RS485	CAN/RS485	CAN FD
Weight	370g	623.5g	800g	1100g	1400g
Max Load	50kg	28kg	25kg	10kg	2kg
Operating Voltage	DC24V±10%	DC24V±10%	DC24V±10%	DC24V±10%	DC12V
Quiescent Current	0.1A	0.2A	0.2A	0.2A	0.45A
Average Current for No-Load Movement	0.4A	0.75A	0.5A	1A	0.63A
Maximum Current	3A	1.4A	3A	3A	2.3A
Repeat Positioning Accuracy	<±0.22mm	±0.20mm	±0.22mm	±0.20mm	±0.20mm
Maximum Thumb Tip Force	28N	10N	15N	18N	4N
Maximum Four-Finger Tip Force	33N	8N	15N	20N	3.5N
Thumb Lateral Rotation Range	--	--	0.75rad (43°)	1.54rad(88.3°)	1.323rad(75.8°)
Four-Finger Bending Angle	1.61rad(92.5.9°)	1.31rad(74.88°)	1.36rad (78°)	1.57rad(90°)	1.471rad(84.3°)
Thumb Side-Swing Speed	1.36rad/s(78.10°/s)	4.10rad/s(235.29°/s)	1.1rad/s(63.21°/s)	3.28rad/s(188.17°/s)	7.093rad(406.3°/s)
Four-Finger Bending Speed	1.30rad (74.75°)	3.71rad/s(212.44°/s)	1.11rad/s(63.33°/s)	1.99rad/s(114.29°/s)	7.744rad(443.6°/s)
Thumb Bending Speed	2.60rad/s(149.22°/s)	2.67rad/s(152.82°/s)	5.28rad/s(302.77°/s)	1.07rad/s(62.26°/s)	7.638rad(437.6°/s)

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