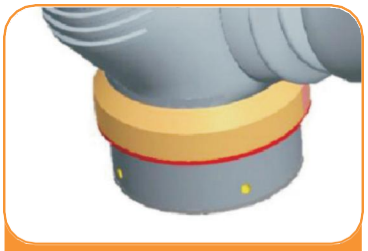
Intelligent bionic hand adopts core technologies such as non-invasive myoelectric nerve signal sensor array, artificial intelligence pattern recognition algorithm, and new human-computer interaction technology . The bionic hand is precisely constructed with more than 280 components, and it houses five ultra-micro motors that are capable of independent control of each finger's movement. The sensor can accurately detect the user's gesture intentions, providing active and natural switching and allowing for precision manipulation by simulating the human hand. Research & design in Canada.

Produce by P&O .

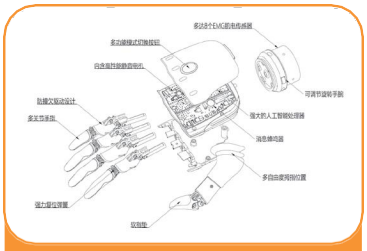
Design And Functional Features

Hands can carry weights

Half-palm silicone cover design



Passive wrist rotation



More than 280 precision parts

Stylish finger design

Artificial intelligence algorithms

Technical Advantages

Core Technical Advantages : "Sense, Know, and Interact"

Sense: bioelectrical sensing, which means recognizing the user's intentions through EMG and EEG sensors;

Know: cognition, which means through the analysis of AI intelligent algorithms, making judgments and send control commands;

Interact: Human-computer interaction, the control command is transmitted to the equipment terminal, and then action is taken. It is completely and uniquely finished by the user through sensory and cognitive training.

Machine: Intelligent Bionic Hand has more than 50 molds including more than 280 parts, which are all independently developed.

SENSE
Multi-channel
Sensing the bioelectrical signals from any part of the body
Highly sensitive

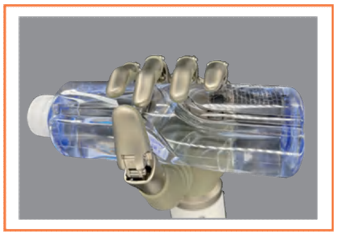
KNOW
Obtain bioelectrical data
AI algorithm analysis
Send control commands

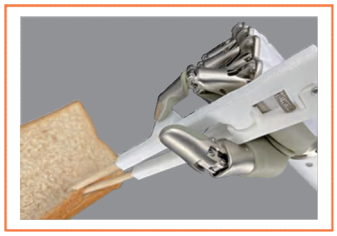
INTERACT
Low latency
Single finger movements
Various hand gestures

1. User-defined grips
2. The grips can be expanded as needed
3. Adjusted by the APP
4. Independent finger movement

(27 changeable hand gestures are available, which can be set up in the APP。)

Basic Movements





Fist
To grasp long items such as tooth-brush, knife, fork and handle.

Mouse
To control mouse via single click or long press.

Key
To grasp thin items such as keys, spoons, dinner plates, cards and newspapers, zippers, shoelaces, etc.

Point
To enter on keyboards, press remote control buttons, doorbells and other light items.

Palm
To take trays, bowls, tennis balls and other items.

Salute
To salute, get dressed, and insert hands into pockets.

Lift
To pick items with handles such as suitcases.

Chopstick
To pick up all kinds of food by using together with chopsticks.

Buckle
To grasp and control hair dryers, spray bottles and other items with handles and switch buttons.

Grasp
To grasp cylindrical and spherical objects such as beverage bottles, water glasses, apples, tennis balls and table tennis balls.

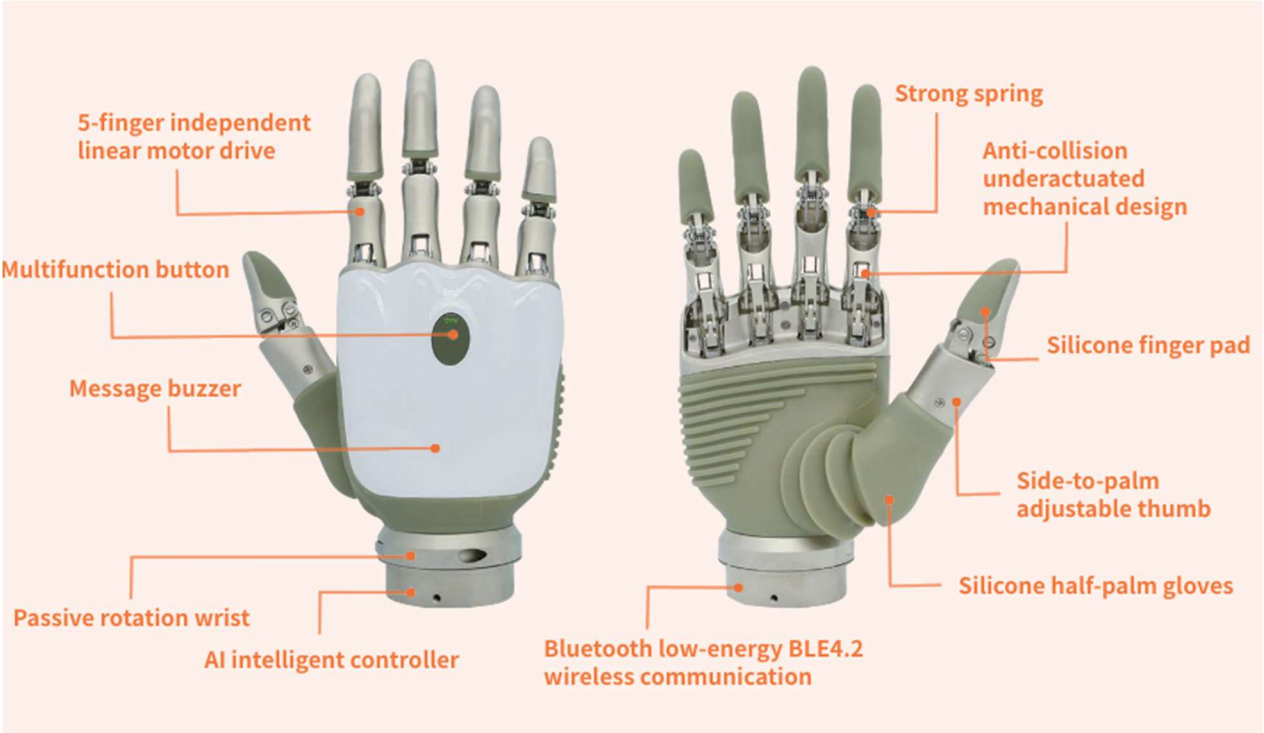
Tripod-To
To pick up books, napkins and other thin objects placed on a flat surface.

Tripod-ITC
To pick up rough objects placed on a flat surface such as building blocks.

Power
To take handbags such as briefcases, schoolbags and shopping bags.

Column
To push heavy objects such as doors and windows, and to enter on keyboards, press buttons, etc.

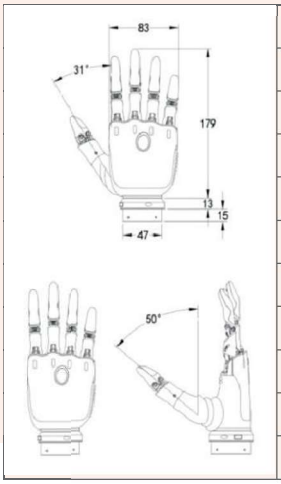
Product Structure



ABOVE ELBOW BIONIC HAND WITH ELECTRONIC ELBOW

SHOULDER DISARTICULATION BIONIC HAND WITH ELECTRONIC ELBOW

Size



Position	Size And Angle
Vertical distance from the tip of the middle finger to wrist	179mm ± 2mm
Vertical distance from the thumb tip to wrist	98mm ± 2mm
Maximum palm width	83mm ± 2mm
Wrist height (outside the socket)	13mm
Wrist height (inside the socket)	15mm
Wrist diameter (outside the socket)	53mm
Wrist diameter (inside the socket)	47mm
Angle range of wrist rotation	± 175°
Maximum opening and closing angle on the side of the thumb	0 - 31°
Maximum opening and closing angle of palmar opposition of thumb	0 - 50°

Strength

Position	Parameter
Fastest time from full finger open to full closed	1.0s
Fastest time from full finger closed to full open	1.0s
Maximum active thrust of the tip of index finger	≥ 0.45kgf
Maximum active thrust of the thumb tip	≥ 1.1kgf
Maximum active pinch force two/three fingertips	≥ 1.1kgf
Maximum weight lifting (hold)	30kg
Maximum static load of single-finger (hold)	6kg
Maximum static load of single-finger (outstretch)	5kg

Weight

Position	Parameter
Weight (including passive rotation wrist)	490g ± 20g

Charge

Position	Parameter
Input voltage	DC6.5V - DC8.4V
Quiescent current	0.15A (@7.2V)
Dynamic current maximum	6.00A (@7.2V)

Design In Vancouver DC Canada

Produce & Assemble By : P&O International Private Limited

Address : O - 46, Near Vinobapuri Metro Station, Gate No-1
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New Delhi 11024

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