

# Sport Assist Robot $\pi$

## USER MANUAL



# Content

|   |           |
|---|-----------|
| <b>1. OVERVIEW .....</b>                  | <b>1</b>  |
| 1. 1 WHAT'S IN .....                      | 1         |
| 1. 2 WEARING .....                        | 1         |
| 1. 3 APPEARANCES AND STRUCTURE .....      | 2         |
| 1. 4 ACCESSORY LIST .....                 | 3         |
| <b>2. ASSEMBLY &amp; ADJUSTMENT .....</b> | <b>4</b>  |
| 2. 1 BATTERY ASSEMBLY / DISASSEMBLY ..... | 4         |
| 2. 2 WAIST STRAPS ASSEMBLY .....          | 4         |
| 2. 3 SHOULDER STRAPS ASSEMBLY .....       | 5         |
| <b>3. WEARING AND USING .....</b>         | <b>6</b>  |
| 3. 1 WEARING .....                        | 6         |
| 3. 2 WEARING STANDARDS .....              | 8         |
| 3. 3 USING .....                          | 9         |
| 3. 4 TAKE OFF THE DEVICE .....            | 17        |
| <b>4. MAINTENANCE .....</b>               | <b>18</b> |
| 4. 1 STORAGE .....                        | 18        |
| 4. 2 STRAPS ASSEMBLY / DISASSEMBLY .....  | 19        |
| 4. 3 CLEANING .....                       | 19        |
| <b>5. COMMON TROUBLESHOOTING .....</b>    | <b>20</b> |
| <b>6. FEATURES .....</b>                  | <b>21</b> |
| 6. 1 MAIN PARAMETERS .....                | 21        |

|   |    |
|---|----|
| 6. 2 TARGET AUDIENCE .....  | 21 |
| 6. 3 OPERATING ENVIRONMENT .....                                  | 22 |
| 6. 4 NAMES AND CONTENTS OF HAZARDOUS SUBSTANCES IN PRODUCTS ..... | 22 |

# 1. Overview

## 1.1 What's π

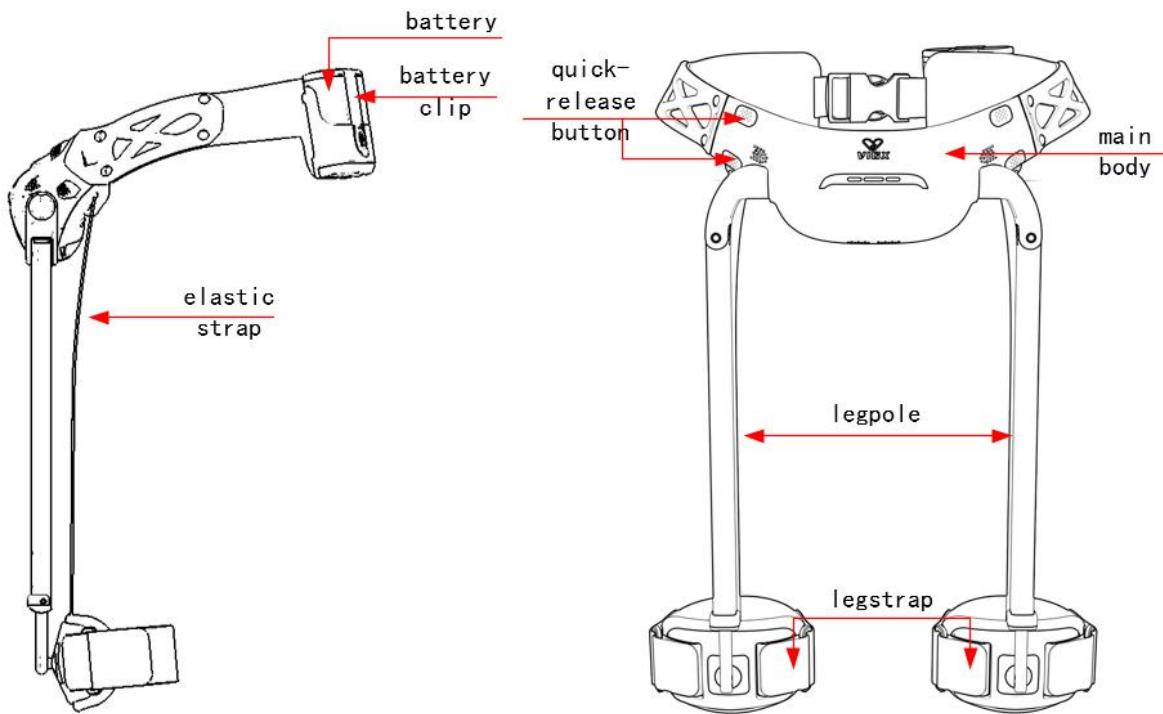
Sport Assist Robot π, with its hip-assisted function, is a powerful sports assistant for outdoor climbing, hiking and jogging. Wearing π, whether walking, hiking or running, can reduce physical energy consumption, allowing you to climb higher, walk farther, and exercise longer with greater endurance. The built-in chip can keenly sense the movement and accurately deliver traction assistance to reduce the muscle burden on the hip and knee joints, reduce joint wear and tear during exercise, and protect your sports health.

The images in this manual are for reference only; the final appearance shall be subject to the actual product.

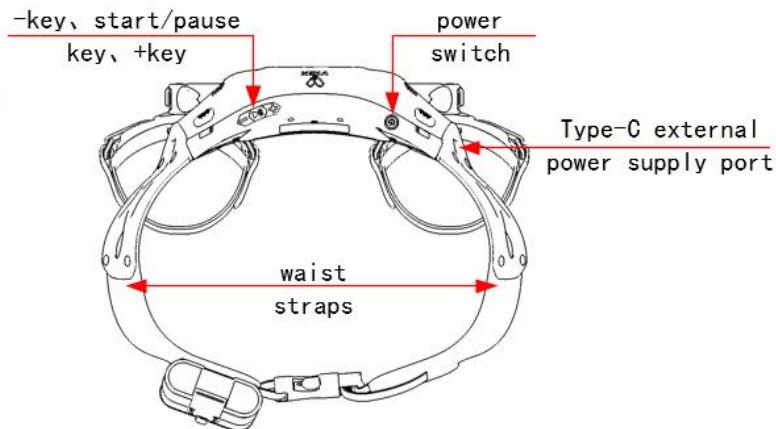
## 1.2 Wearing



### 1. 3 Appearances and Structure



π Appearance Structure and Component Explanation Figure 1



π Appearance Structure and Component Explanation Figure 2

## 1.4 Accessory List

| Serial Number | Name                    | Quantity         | Notes  |
|---------------|-------------------------|------------------|--|
| 1             | Π equipment main unit   | 1 unit           |  |
| 2             | waist straps            | 1 set            |  |
| 3             | battery                 | 1 piece/2 pieces | 2 pieces for the Plus version, 1 piece for the Basic version |
| 4             | leg straps              | 1 set            | Installed on equipment                                       |
| 5             | shoulder strap          | 1 set            |  |
| 6             | battery charging seat   | 1 unit           |  |
| 7             | battery charger         | 1 unit           | Includes 1 metre of line                                     |
| 8             | product user manual     | 1 copy           |  |
| 9             | equipment organizer bag | 1                | Promotional gift, not fixed accessories                      |



## 2. Assembly & Adjustment

### 2.1 Battery Assembly / Disassembly

**Step 1:** Open the battery tab;  
**Step 2:** Remove the battery and insert another battery;  
**Step 3:** Cover the battery tab.



### 2.2 Waist Straps Assembly

**Step 1:** Attach the back buckle;



**Step 2:** Insertion of left and right side waist straps.



## 2.3 Shoulder Straps Assembly

### Step 1:

Hang the two side hooks on the hanging holes at the front and back of the waist straps respectively;



### Step 2:

The elasticity of the shoulder straps is adjusted according to the height of the user, so that the device is just weightless on the waist.

## 3. Wearing and Using

### 3.1 Wearing

#### 3.1.1 Host Device Wearing

**Step 1:**

Grasp the host device, wrap the host waist around your waist and insert the loose waist straps;

**Step 2:**

Adjust the host position about 3-4 fingers below the navel, then tighten the waist straps.



### 3.1.2 Leg Straps

#### Step 1:

Adjust the length of the leg elastic band according to your height;



#### Step 2:

Thread the leather buckle on the front side of the leg straps;



#### Step 3:

Leg strap elasticity adjusted to fit.



#### Caution:

Loose leg straps can cause the leg bar to pop up and easily cause injury.

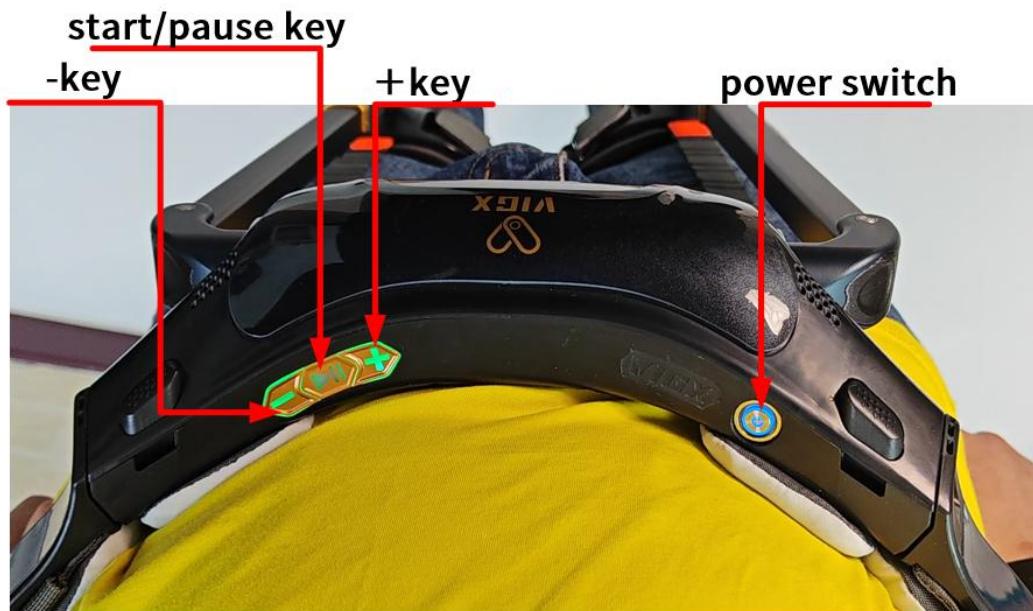
### 3.2 Wearing Standards

- The upper edge of the host device is 3-4 fingers under the navel;
- The host device is worn at the hip bone position;
- The waist straps are tightened and the person's waist has a corset-like feeling;
- Leg shells above the knee, leg straps properly tightened.



### 3. 3 Using

#### 3.3.1 Key



#### 3.3.2 Power On/Off

**Power on:** Press the power switch  , waiting for the device to start, start-pause key  lights up;



**⚠ Caution:** Before powering on, please make sure the battery is installed and the switch is in the power off state  .

**Power off:** Press the power switch  and the device shuts down. After shutting down the device, the light of start-pause key  goes out.

**Caution:**

Make sure to turn off the machine before unloading the device, otherwise the leg bar may pop up and cause injury easily.

### 3.3.3 Adjustment

#### Power startup /

#### pause:

Short press the start-pause key , the device startup and the  light is always on;

Short press the start-pause key , the robot pause and the  light flash.



#### Assist adjustment:

With the power assist on, short press the plus key , minus key  to increase or decrease the power assist, and the voice announces the power gear.



| Weight (kg) | Assist level |
|-------------|--------------|
| ≤50         | 4            |
| 50–60       | 5–6          |
| 60–70       | 6–8          |
| ≥70         | ≥8           |

\*\*For initial use, it is recommended to reduce the assist level by 1-2 gears from the recommended setting to adjust to the assistance effect.

**Battery level reminder:**

Long press the start-pause key, the device announces the current battery percentage;

**lamp:**

- ▶ Yellow light on at 20% battery.;
- ▶ Orange or red light on at 1%;

**Scene Switching:**

With the power assist on, press the plus+ and minus- key briefly at the same time until the voice announces different scenes;

**Mode switching:**

With the power assist pause, press and hold the plus+ and minus- key at the same time until the voice announces different modes;



## default configuration

### restored:

When assistive power is suspended, press and hold the plus , minus  and start-pause keys  simultaneously until the voice prompt announces “default configuration restored”.



### 3.3.4 Charging

#### Preparation:

As shown in the figure, connect the charging ports one by one, after power, the charging indicator is a slow running light.



#### Charging:

Operate as shown in the figure; the indicator light will blink when the battery is charging.; A green indicator means the battery is full. A yellow indicator means the battery is damaged and should be replaced!

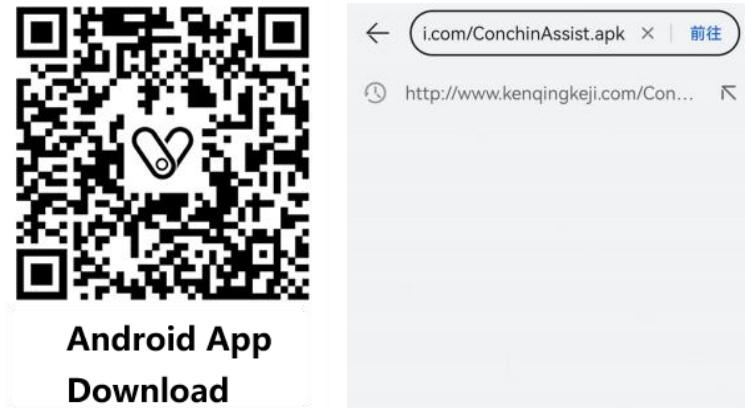


### 3.3.5 App download

#### Android phones:

Method 1:please scan the QR code to download the App.

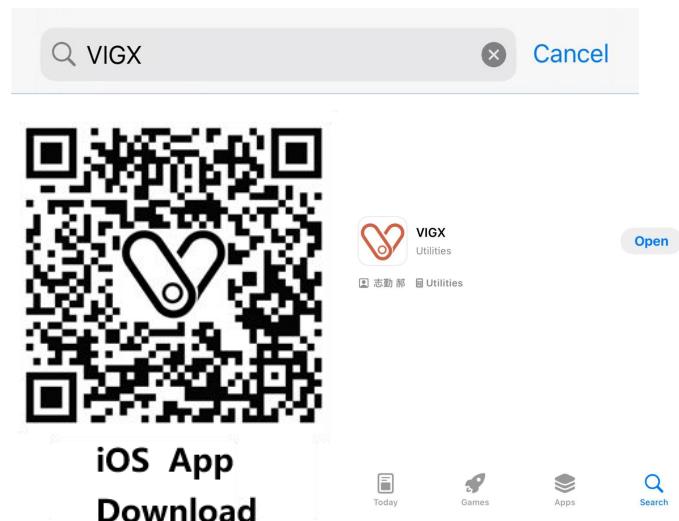
Method 2:please use your mobile browser to input URL:  
<https://www.kenqingkeji.com/VIGX/VIGXAPP/VIGX.apk>



#### iPhone:

Method 1:In App Store directly searches for "VIGX".

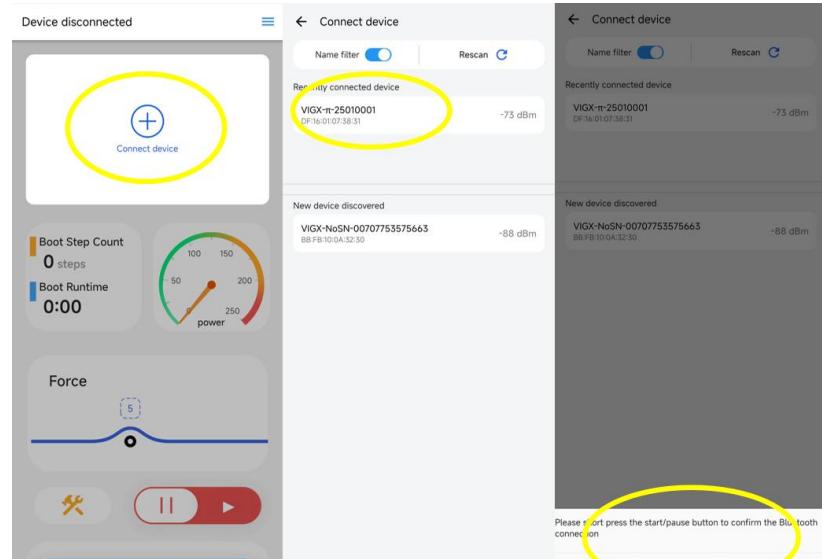
Method 2:please scan the QR code to download the App.



### 3.3.6 Connect App

#### Step 1:

Click “Connect device”;



#### Step 2:

Click on the serial number to connect the device (serial number available on the device label, last 8 digits);

#### Step 3:

The first time to connect the device, you need to press the start-pause key  to confirm the connection.



### 3.3.7 External Charging Support

The device supports a Type-C interface with 5V output, which can be used to power external devices.



**⚠ Caution :** This Type-C port only supports power output to external devices and does not support charging the device itself. Please do not use this port for charging. To charge the device, use the provided charger to recharge the battery.

**⚠ Caution :**

- 1、 π will be slightly heated during normal use, this is a normal phenomenon, please do not worry.
- 2、 **Do not walk** while adjusting settings (assist level, parameters, or mode) during operation to avoid imbalance and falls.

### 3.4 Take Off the Device

#### Step 1 :

Peel off the front side velcro and take off the leg straps.



**⚠ Caution:** Make sure the device is turned off before taking off the device, otherwise the leg bars may pop up easily causing injury.

#### Step 2 :

Holding the host device, pull out the right waist straps while pressing the right release button.



**⚠ Caution :** After removing the device, ensure that it is prevented from falling and causing injury.

## 4. Maintenance

### 4.1 Storage

#### Step 1:

Remove the waist straps on both sides of the device;



#### Step 2:

Folding host device;



#### Step 3:

Pack.



## 4.2 Straps Assembly / Disassembly

### Waist straps:

The waist straps are secured with Velcro fasteners. To remove and clean them, simply detach the Velcro.



### Leg straps:

The leg straps are secured with Velcro fasteners. To remove and clean them, simply detach the Velcro.



## 4.3 Cleaning

### 4.3.1. Fabrics Cleaning

The image on the right shows the washable components. Use a laundry bag during washing to prevent damage to these parts.; Reinstall them after they are fully dried.



 **Caution:**

1. Do not use water temperatures above 40°C for cleaning;
2. For longer-lasting linings, place them in a laundry bag before machine washing.

### 4.3.2. External Surface Cleaning

Clean the device with a moist cloth to remove dust and dirt or disinfect it with an alcohol-based wipe.

## 5. Common Troubleshooting

| Fault phenomenon   | Analysis of possible causes   | Fault resolution   |
|--|---|--|
| <b>Can't power on</b>  | 1. The battery is not installed<br>2. The emergency switch is not closed<br>3. The battery is exhausted | 1. Load battery<br>2. Close the emergency switch<br>3. Charge the battery                                |
| <b>Wearing detection failed</b>  | 1. Device not worn<br>2. Incorrect device wearing   | Refer to chapter 3 for wearing   |
| <b>No power output</b>   | ▶ II key blinking, power pause  | Press the ▶ II key to activate assistance.   |
| <b>No power output and prompt “Falling detected”</b>                                 | detects falling   | Please press function key ▶ II to start power output and walk normally                                   |
| <b>No power output and prompt “Over speed detected”</b>                              | detects over running speed  | Please press function key ▶ II to start power output and run slowly                                      |
| <b>No power output and prompt “Temperature too high, device will shut down soon”</b> | detects too high temperature and shut down  | Please place the device in a proper temperature environment, wait for it to cool down, and then restart. |
| <b>No power output and prompt “Device error”</b>                                     | key red indicator flashes   | Please contact after-sales services  |
| <b>Other's failure</b>   |   | Please contact after-sales services  |

⚠ Caution: If the problems cannot be solved, **please contact after-sales service and do not disassemble the machine by yourself.**

## 6. Features

### 6.1 Main Parameters

| model                                     | π   | π plus  |
|---|---|---|
| Weight                                    | 2.0kg (including the battery, waist straps, and leg straps, the weight will vary due to different accessory configurations) | 2.2kg (including the battery, waist straps, leg straps, the weight will vary due to different accessory configurations) |
| Size                                      | 450*350*320mm   | 450*350*320mm   |
| Battery Capacity                          | 51.8Wh  | 103.6Wh   |
| Continuous usage time after a full charge | Continuous walking for -2h(12000 steps)@ medium speed @medium force<br>Standby time: 24 hours                               | Continuous walking for -4h(24000 steps)@ medium speed @medium force<br>Standby time: 48 hours                           |
| Maximum Torque                            | 10Nm  | 15Nm  |
| Maximum Speed                             | 10.5km/h  | 15km/h  |
| Bluetooth                                 | BLE: 2402-2480Mhz, EIRP: -4.0 dBm (Max)   | BLE: 2402-2480Mhz, EIRP: -4.0 dBm (Max)   |

### 6.2 Target Audience

| Host size | height (cm) |
|-----------|-------------|
| S         | 150-165     |
| M         | 165-185     |
| L         | 180-200     |

| Waist strap size | Waist size one finger below the belly button (cm) | inch (in) |
|------------------|---|-----------|
| S                | 72-82   | 28-32     |
| M                | 82-100  | 32-39     |
| L                | 100-125   | 39-49     |

| Leg strap size | Three fingers above the knee leg circumference size (cm) | inch (in) |
|----------------|--|-----------|
| S              | 30-45  | 12-18     |
| M              | 40-62  | 16-24     |

## 6. 3 Operating Environment

Operating ambient temperature: -10°C~45°C.

Charging ambient temperature: 0°C~45°C.

The device itself has a certain level of dust and rain resistance (not water immersion).

## 6. 4 Names and Contents of Hazardous Substances in Products

| Part Name                     | hazardous substances or elements |    |    |     |         |      |
|-------------------------------|----------------------------------|----|----|-----|---------|------|
|                               | Pb                               | Hg | Cd | PBB | Cr (VI) | PBDE |
| PCBA                          | ×                                | ○  | ○  | ○   | ○       | ○    |
| Components<br>(incl. modules) | ×                                | ○  | ○  | ○   | ○       | ○    |
| Battery                       | ×                                | ○  | ○  | ○   | ○       | ○    |
| Charger                       | ×                                | ○  | ○  | ○   | ○       | ○    |
| Metal Structural<br>Parts     | ○                                | ○  | ○  | ○   | ○       | ○    |
| Plastic<br>Structural Parts   | ○                                | ○  | ○  | ○   | ○       | ○    |
| Wrap                          | ○                                | ○  | ○  | ○   | ○       | ○    |

This form has been prepared in accordance with the provisions of SJ/T 11364.

○: It means that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements stipulated in GB/T 26572.

×: Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirements stipulated in GB/T 26572, and there is no mature alternative in the industry at present, which is in line with the environmental protection requirements of the EU RoHS Directive.



The numbers in this logo indicate that the product has an environmental life span of 10 years under normal use. Certain parts may also be labelled with an environmental life expectancy, and the environmental life expectancy is based on the number in the logo.

## Service & Support



**Android App  
Download**



**iOS App  
Download**

Kenqing Technology official website and WeChat account are as below:



**Official Website**



**WeChat Account**

Addr: A1, Floor 1, Shanshui Bld., Nanshanyungu Park, Liuxian Ave., Nanshan District, Shenzhen, P.R.C

Contact: 400-876-8873

Email:conchin@kenqingkeji.com

Web: www.kenqingkeji.com