



WIMS

WEARABLE MOBILITY

Important Notice to Customers

- If you discover a product defect or have any inquiries, please contact the Customer Center.
- This product is covered under the Consumer Dispute Resolution Standards in accordance with the Framework Act on Consumers.
- For purposes of quality improvement or upgrades, product specifications may be modified without prior notice. Consequently, product images in the user manual may differ from the actual product.

Customer Center +82-1551-2536

KST Weekdays 09:00 ~ 18:00 / Closed on weekends and holidays

WIRobotics Inc.

<https://corp.wirobotics.com>



My First-Ever Robot, WiRobotics

CONTENTS



1. Before Use	2	5. Maintenance and Cleaning	37
1.1 Target Users	6	5.1 Maintenance	37
1.2 Intended Use	8	5.2 Cleaning	37
1.3 Restrictions on Use	8	5.3 Expected Lifespans of Consumables	37
1.4 Precautions for Use	9		
2. Safety Precautions	10	6. Troubleshooting	38
2.1 General Safety Guidelines	10	6.1 Pre-Reporting Checklist	38
2.2 User-Specific Precautions	10	6.2 Purchasing Accessories	41
2.3 Environmental and Operating Conditions	11		
3. Product Information	12	7. Regulatory Information	42
3.1 Package Contents	12	7.1 Regulatory Information	42
3.2 Appearance	13	7.2 Disposal Guidelines	42
3.3 Main Unit	14		
3.4 Waist Unit	16	8. Appendix	43
3.5 Leg Unit	17	8.1 Product Specifications	43
		8.2 Customer Support	44
4. How to Use	18		
4.1 App	18		
4.2 Using the Device	20		

1. Before Use

- This user manual has been prepared to ensure the safe and proper use of the wearable mobility robot WIM® S (Model: WIR-WIMS-KRA, WIMS1-CDG, WIMS1-CBD), developed by WIRobotics.
- The WIM® S is a next-generation wearable mobility robot that provides gait assistance, enhanced exercise efficiency, and muscle strengthening effects through a single-motor-based assistive and resistive torque generation system in combination with a real-time user intent recognition algorithm.
- This document provides comprehensive information on product structure and components, instructions for use, safety information, operating principles, and maintenance guidelines. It is intended not only for first-time users but also for caregivers, trainers, and medical professionals.

Document Information

- This manual may be updated to reflect product upgrades or safety improvements.
- The revision number and revision history are managed as follows:
 - Revision Number: Displayed at the bottom left corner of the document cover
 - Effective Date: Applied based on the date indicated at the bottom left corner of the document cover
 - Digital Manual: The latest version is available on the official website or through customer support channels.
- Users are responsible for ensuring safe use of the product by referring to the latest version of the user manual.

Contact Information for Customer Support

- If you encounter any issues while using the product or require technical support, please contact the Customer Support Center.
- With customer safety as its top priority, the Customer Support Team offers prompt assistance with product inquiries, failure reporting, accessory purchases, and warranty information.

Customer Support Center	Information Required for Maintenance & Repair Services
Phone: 1551 - 2536	Model and serial number
Email: wirobot@wirobotics.com	Time of occurrence and symptoms of the problem
Website: https://corp.wirobotics.com	Proof of purchase (to verify warranty period)
Hours of Operation: Weekdays 10:00 – 17:00 (Excl. holidays)	

Symbols and Conventions

- The following symbols are used throughout this manual and on the product.

	Warning Failure to follow these instructions may result in serious injury.
	Caution Failure to follow these instructions may result in minor injury or product damage.
	Operator's Manual
	Add, Anode
	Subtract, Cathode
	Direct Current (DC)
	Date of Manufacture
	CE Mark
	WEEE Symbol

1. Before Use

Warning • Failure to follow these instructions may result in serious injury.	
Do not use the device for purposes other than walking assistance or exercise (e.g., driving).	This may result in injury.
Do not use the device in vehicles or on ships.	Invisible corrosion may result in malfunction.
Do not subject the device to impact.	This may result in electric shock or malfunction.
Do not overextend device components.	This may result in injury or device malfunction.
Do not modify, repair, or disassemble the device.	This may result in malfunction and void the warranty
Do not use the device if it is damaged.	This may result in injury.
Do not wear the device or its components in unintended positions.	This may result in injury or device malfunction.
Do not wear the leg unit only on one leg.	
Do not remove the device before turning the power off.	This may result in injury.

Caution • Failure to follow these instructions may result in minor injury or product damage.	
The WIM S is a wearable mobility robot intended for individuals who are able to walk independently. Users who require physical assistance or are unable to use their hands must use the device under the supervision of a caregiver.	Failure to do so may result in injury.
Keep the device out of reach of infants, children, and pets.	
Use only the dedicated charger.	Failure to do so may result in fire, electric shock, or device malfunction.
Do not wear the device too tightly.	Failure to do so may result in injury.
Wear the device over appropriate exercise clothing.	Direct contact with bare skin may result in injury.

1. Before Use

Make sure the power is turned off before putting the device on. Turn the power on only after the device is properly worn.	Failure to do so may result in injury.
Adjust the mode and intensity level only while completely still.	
After using the WIM S, walk in place or stretch before resuming movement. Moving immediately after using the device may cause dizziness.	
Exercise caution when changing modes or intensity levels while walking.	
Check your activity records while completely still.	
Check the device for any damage before use.	
If you experience lower back pain before or during use, discontinue use immediately. Resume use only after the pain has subsided.	If the battery becomes depleted during exercise, it may result in injury.
Check the battery status before and after exercise. Recharge the battery if necessary.	
The WIM S is IP65 certified. If the device is used in rain, dry it thoroughly before reuse.	Failure to do so may result in fire or device malfunction.
To prevent injury, avoid direct contact with the skin. Exercise caution if any part of the device comes into direct contact with the skin.	Failure to do so may cause injury or device malfunction.
Make sure the waist strap is worn properly and the main unit is securely attached before use. Improper attachment may cause the main unit to detach during walking.	
Make sure the Velcro strap is securely fastened.	
Make sure the leg straps are securely fastened. Check for any discomfort before use.	
To remove the main unit, hold it with one hand and detach it slowly, one side at a time.	Failure to do so may result in fire or device malfunction.
Do not store or use the device near combustible materials or strong magnetic fields.	
Do not store or charge the device in hot, humid, or cold environments.	
Check your skin condition before and after exercise. Pay particular attention to the areas where the device comes into contact.	Failure to do so may result in injury.

1.1 Target Users

Independent Exercise	⓪ Individuals who can walk independently outdoors ⓪ Individuals with balance, strength, or mobility issues who meet the following criteria: • Able to perform five sit-to-stand movements within 15 seconds • Able to walk 4 meters within 5 seconds ⓪ Individuals who have not experienced a fall within the past 6 months
Exercise with a Supervisor	⓪ Individuals with balance, strength, or mobility issues who meet the following criteria: • Able to perform five sit-to-stand movements within 30 seconds (Should not be used by those who take more than 30 seconds to perform this exercise) • Able to walk 4 meters within 10 seconds (Should not be used by those who take more than 10 seconds to perform this exercise) ⓪ Individuals with a relatively high risk of falling (Refer to Huhn's Fall Risk Assessment Tool) • Individuals who have experienced a fall within the past 6 months • Individuals suspected of having cognitive impairment such as dementia and depression • Individuals taking medications that affect mental or neurological function, including antidepressants, sedatives, or sleep-inducing drugs • Individuals experiencing dizziness, vertigo, orthostatic hypotension, or postprandial hypotension ⓪ Individuals with impaired hand function who are unable to independently put on the WIM S
⚠ Warning	• The following individuals must not use this device:
Non-Target Users	⓪ Individuals who have been advised by a medical professional to restrict or avoid active exercise ⓪ Individuals with complete paralysis of the lower limbs ⓪ Individuals with uncontrollable spasticity due to central nervous system disorders (e.g., brain or spinal cord conditions) ⓪ Individuals with a history of recurrent falls ⓪ Individuals with severe joint contractures of the lower limbs or significant musculoskeletal deformities (e.g., genu varum (bow legs), genu valgum (knock knees), scissoring gait, rotational or abnormal gait patterns) ⓪ Individuals who are 145 cm tall or shorter ⓪ Infants, toddlers, or adolescents

User Eligibility Assessment Criteria and Tools (For Reference Only)

4 m Walking Speed	0 - 5 seconds	5 - 10 seconds	Over 10 seconds
Independent Exercise	Permitted	Not Permitted	Not Permitted
Exercise with a Supervisor	Permitted	Permitted	Not Permitted

Sit-to-Stand Exercise (5 Reps)	0 - 5 seconds	5 - 30 seconds	Over 30 seconds
Independent Exercise	Permitted	Not Permitted	Not Permitted
Exercise with a Supervisor	Permitted	Permitted	Not Permitted

Other	Required Use of Assistive Device	Impaired Hand Function	History of Falls (within past 6 months)
Independent Exercise	Not Permitted	Not Permitted	Not Permitted
Exercise with a Supervisor	Permitted	Permitted	Permitted

* The device must be used only with a supervisor present if any one of the following applies: required use of an assistive device, impaired hand function, and history of falls.

1.2 Intended Use

- The WIM S is a wearable mobility robot.
- It is worn externally over clothing around the waist and legs to deliver assistive torque to support walking and resistive torque to strengthen lower limb muscles.
- The WIM S helps users increase their stride length, maintain proper walking posture, and walk more actively, while improving their muscle strength through controlled resistance.
- The WIM S app analyzes the user’s gait and visually displays a gait score, allowing users to understand their overall gait condition and walking efficiency and motivating consistent exercise.
- The WIM S and its app are useful tools for implementing an effective walking exercise program.

1.3 Restrictions on Use

**Warning**

- Failure to follow these instructions may result in serious injury.

The following uses are prohibited or not recommended. Misuse of the product may result in injury, equipment damage, and/or voiding of the warranty.

- The WIM S is not a medical device.
- The WIM S is designed as an assistive device to assist with walking, not for therapeutic purposes.
- Do not use the device for purposes other than walking assistance or exercise (e.g., driving).
- Do not subject the device to impact.
- Do not overextend device components.
- Do not modify, repair, or disassemble the device.

- Do not modify, repair, or disassemble the device.
- Do not wear the device or its components in unintended positions.
- Do not store the battery with a discharged or fully charged battery for extended periods.
- For long-term storage, it is recommended to store the device with the battery charged to 50-70%. Leaving the battery completely discharged for extended periods may result in reduced battery performance and/or malfunction.

1.4 Precautions for Use

**Caution**

- Failure to follow these instructions may result in minor injury or product damage

- The WIM S is a wearable mobility robot intended for individuals who are able to walk independently. Users who require physical assistance or are unable to use their hands must use the device under the supervision of a caregiver.
- Keep the device out of reach of infants, children, and pets.
- In winter or in dry environments, be careful of static electricity caused by friction with synthetic fibers.

2. Safety Precautions

All users must read these safety instructions carefully before using the product.

2.1 General Safety Guidelines

Warning

- Read the following instructions thoroughly before using the product.

Incorrect use may result in injury or product malfunction.

- This product is not a medical device. It is designed to assist walking and is not intended for therapeutic purposes.
- Please read the user manual carefully before using the device.
- Do not use the device in environments where walking rhythm may become unstable, such as slippery surfaces or steep slopes.
- Discontinue use immediately if you experience lower back or joint pain before or during use.
- Be sure to use an approved charger with guaranteed charging performance. Failure to do so may result in injury to the user or product malfunction.
- Do not store in high-temperature (e.g., inside a vehicle) or high-humidity environments.
- After using in rain, snow, or wet conditions, make sure the device is completely dry before charging.

2.2 User-Specific Precautions

Caution

- Failure to follow these instructions may result in minor injury or product damage.

- This product should not be operated or worn by children.
- Users with impaired balance should seek assistance from a caregiver before using the product for the first time.
- Users with implantable medical devices (e.g., pacemaker, defibrillator) should consult a physician before use.
- Users with impaired motor function or insufficient muscle strength should seek guidance from an expert or supervisor.

2.3 Environmental and Operating Conditions

The intended operating environments for this product are as follows

- Indoor/outdoor flat walking exercise paths (e.g., park trails, tracks, etc.)
- Hiking trails and forest paths with gentle slopes
- Ingress Protection Rating: IP65 (This device can be used in light rain or snow conditions. Dry the device completely after use before storing.)

Operating Conditions: -20 – 45°C

Storage Conditions: -20 – 45°C

Warning

Conditions under which use is prohibited

Do not use the device in the following environments or conditions:

- Slippery surfaces such as ice, wet tiles, mud, and steep slopes
- Roads with frequent traffic, including vehicles, bicycles, and electric scooters
- Areas where there may be heavy rain, snowfall, lightning strikes, flooding, or potential submersion
- Areas with explosion hazards such as combustible gases and explosive dust

3. Product Information

* Component specifications are subject to change without prior notice for product improvement.

3.1 Package Contents

Opening the Package and Checking the Contents
After unpacking the product, verify that all components shown below are included. If any item is missing or damaged, contact the Customer Support Center immediately.

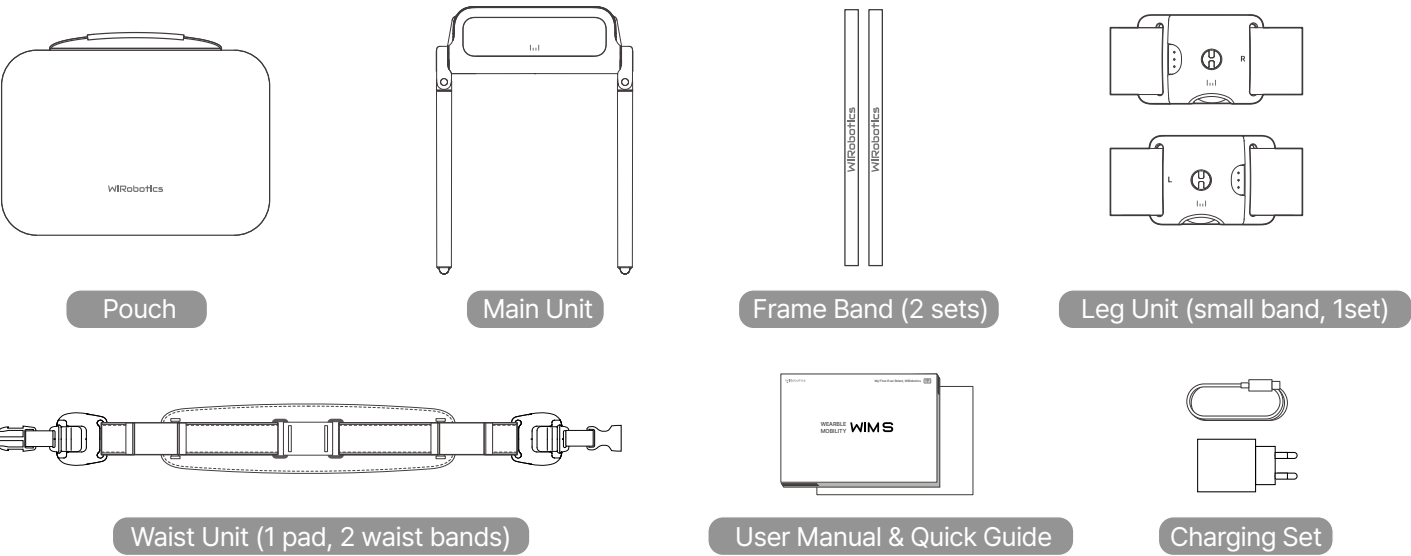
**Warning**

• Do not use if the product is damaged or its exterior is broken.

**Caution**

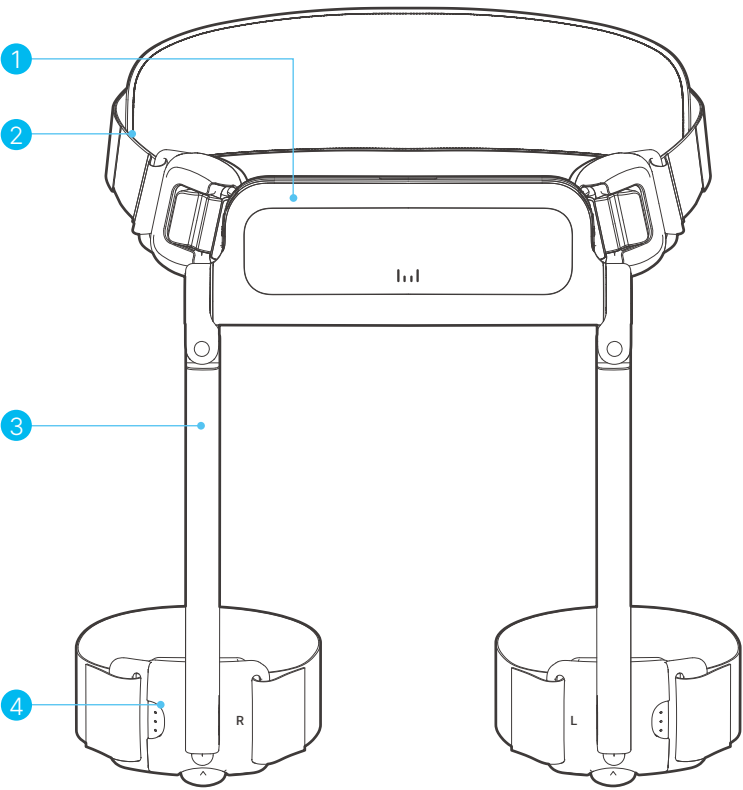
Precautions for Unpacking

- Be careful not to damage the components when opening the product with a sharp tool.
- Do not press the power button until all components are fully prepared for use.
- Check that there is no external deformation, cracks, or moisture in the main unit, band, or cable.



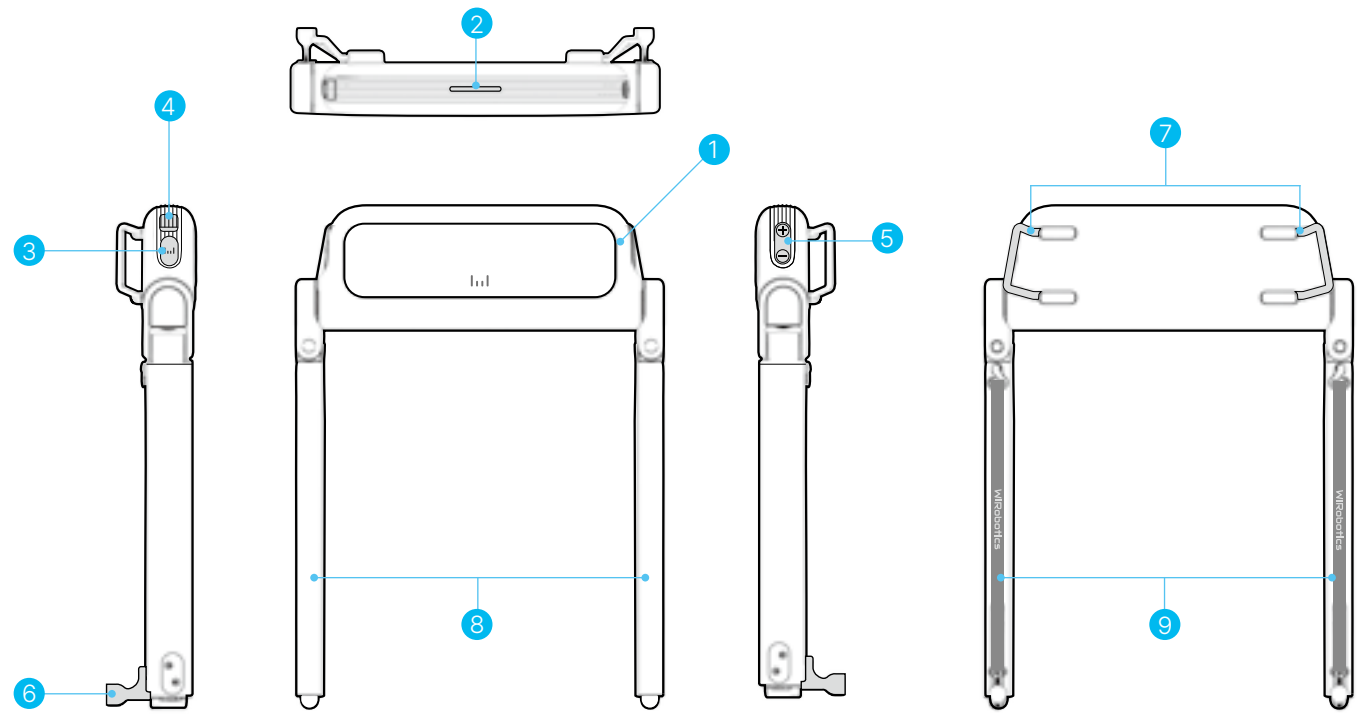
3. Product Information

3.2 Appearance



Parts & Components		
1	Main Unit	Power button, battery, and actuator
2	Waist Unit	Secures the WIM S to the user's waist
3	Frame	Transfers assistive torque to the user
4	Leg Unit	Secure the WIM S to the user's legs

3.3 Main Unit

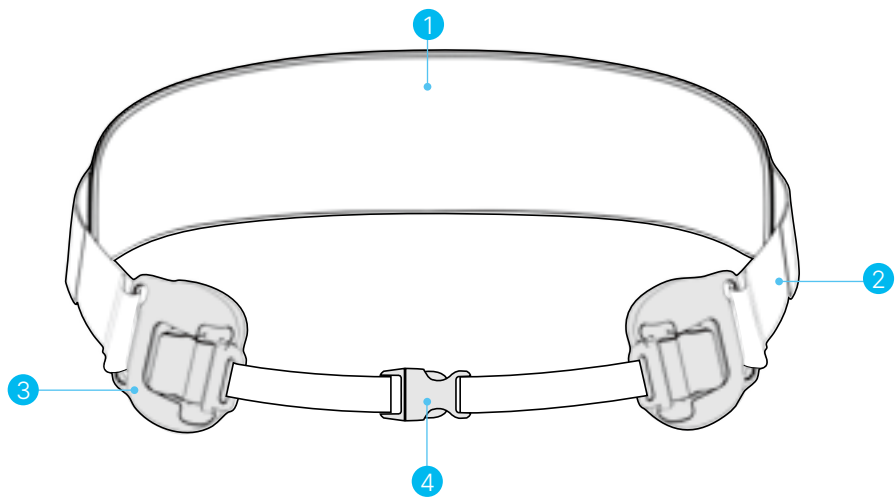


* Component specifications are subject to change without prior notice for product improvement.

Main Unit		
1	Main Unit	Battery (built-in), actuator (built-in)
2	LED Indicator	Displays the robot's operating status (Rest Mode, Air Mode, Aqua Mode, Care Mode, Hiking Mode)
3	Power Button	For turning the power on/off and changing modes when the power is on
4	Charging Port Cover	Protects the USB-C charging port
5	Intensity Control Button	Adjusts the intensity of Air, Aqua, Care, and Hiking Modes and turns the mute function on/off
6	Joint	Connects the leg frame to the leg unit buckle
7	Loop	Secures the main unit to the waist unit
8	Frame	Transfers assistive torque to the user
9	Frame Band	Transfers assistive torque to the user

* The available modes may vary depending on the model.

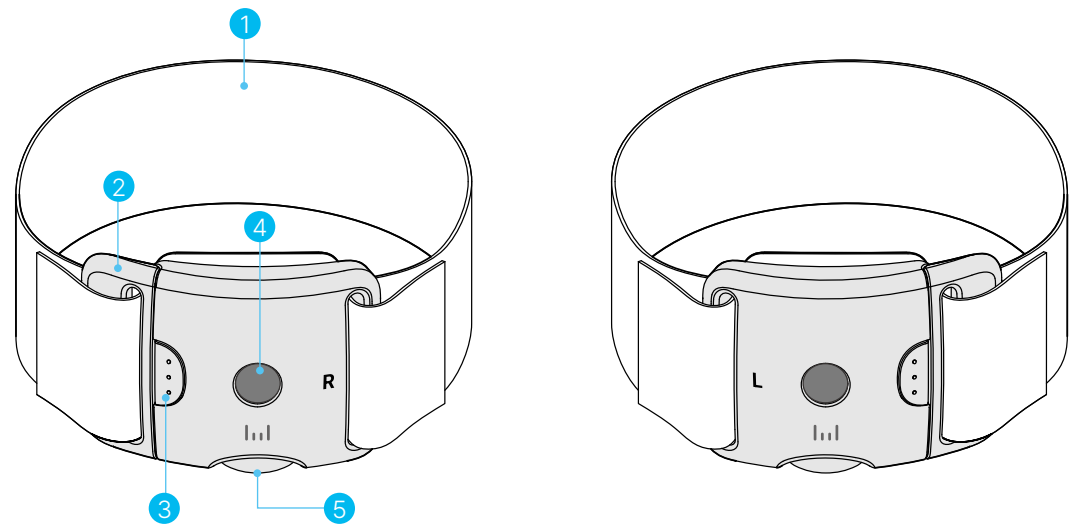
3.4 Waist Unit



Waist Unit		
1	Waist Pad	Secures the WIM S to the user's waist
2	Waist Band	Secures the WIM S to the user's waist
3	Main Unit Connector	Connected to the main unit's loop
4	Waist Buckle	Fastens the waist band
Size		66 - 125 cm (adjustable to fit the user's waist size)

3.5 Leg Unit

* Component specifications are subject to change without prior notice for product improvement.



Leg Unit (Left and right leg units are clearly marked with "L" and "R".)		
1	Leg Band	Secures the leg unit to the user's leg
2	Leg Buckle	Fastens the leg band
3	Leg Buckle Release Button	Unfastens the leg band
4	Center Hole	Connects the leg unit to the frame joint
5	Hole Button	Used to attach or detach the joint from the center hole

4. How to Use

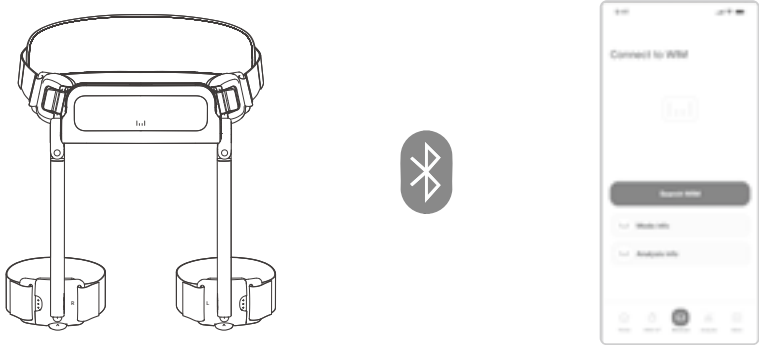
4.1 APP

A. User Registration (First-Time Users)

- Search for “WIROBOTICS” in the Google Play Store or Apple App Store.
- Install the app and sign up using your social media account.
1)Put on the WIM S properly and turn the power on.
2)Open the WIM S app, connect it to your phone via Bluetooth, and record your walking activity data.



B. App Guide



Warning



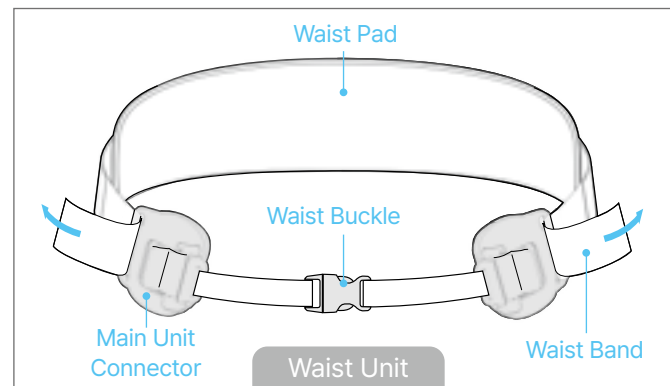
Caution

- The use of rooted or jailbroken smartphones is strictly prohibited, as it may compromise system security.
 - When using the application on another person's device, log out after use to protect your account information.
 - Exercise caution when using public Wi-Fi.
 - Maintain a distance of within 1.5 m (5 ft) between the smartphone and the device.
 - Keep the smartphone operating system updated to the latest version.
 - Disabling the smartphone lock function or sharing application usage records on social media may result in unintended disclosure of sensitive personal information.
 - If Bluetooth connection fails, restart the application or reboot the smartphone.
 - Put on the WIM S properly and turn the power on.
 - Press the “Search for WIM” button to connect to the app via Bluetooth.
 - [Home]: Shows your workout statistics from the past week.
 - [WIM-UP]: Users can exercise with WIM S while following the voice guidance based on an AI-recommended personalized walking exercise program.
 - [WIM Exercise]: Select the mode and intensity level under the map interface and start an exercise session.
 - [Exercise History]: View your entire workout history and daily/weekly/monthly statistics.
 - [See More] You can view your information, WIM S settings, and app information.
- * Exercise data and history cannot be viewed unless the WIM S device is connected to the app.

4.2 Using the Device

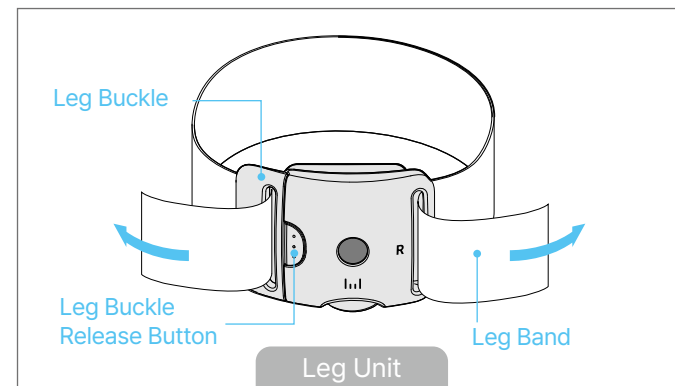
a. Preparation for Wearing the Device

1) Waist Band



1. Slip the waist band into the main unit connector.
 2. Fasten the waist buckle and prepare the band as shown in the illustration.
 3. Put the waist unit on. If it does not fit properly around the waist, adjust the fit using the Velcro fastener.
- * If the waist buckle becomes detached from the main unit connector, reinsert it.

2) Leg Band

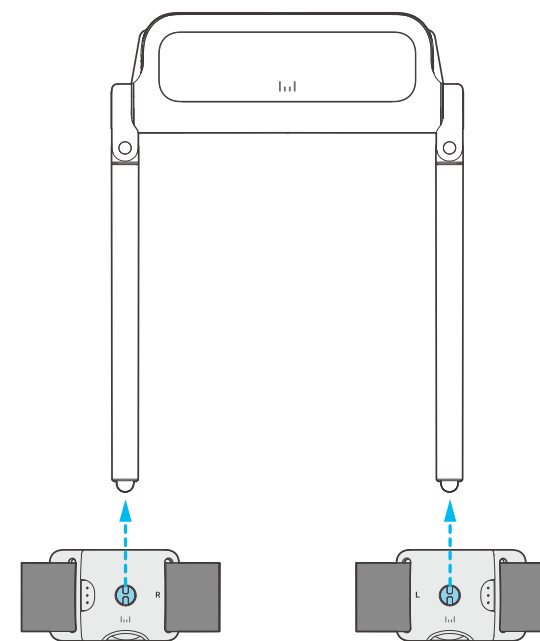


1. Connect the leg band to the leg buckle.
- * When worn, the leg buckle button should be positioned on the outer side of the knee.
2. Put the leg unit on. If it does not fit properly around the leg, adjust the fit using the Velcro fastener.

3) Attaching the Main Unit Frame Joint to the Center Hole of the Leg Unit



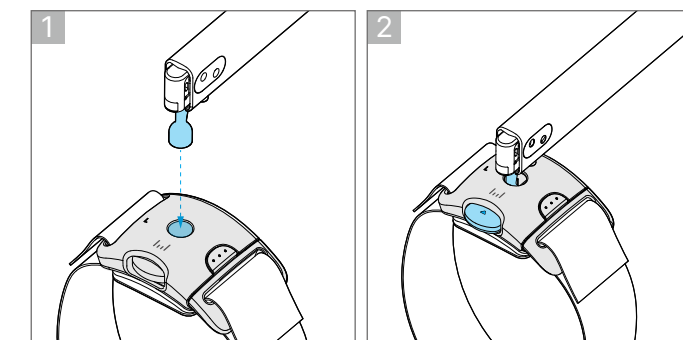
- Be careful not to get your fingers caught in the gaps between the joints and hinges (such as when folding or unfolding).
- Do not fasten the device excessively tight. Adjust the fit to avoid abdominal compression.



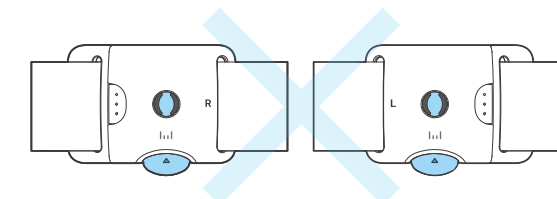
A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.



How to Put on the Leg Unit



- Insert the frame joint into the center hole of the leg unit.
- Make sure you hear a "click" sound and that the hole button is protruding.
- Press the hole button to release the frame joint.



- If the hole button does not protrude or the center hole is not fully open, the frame joint will not be securely engaged.

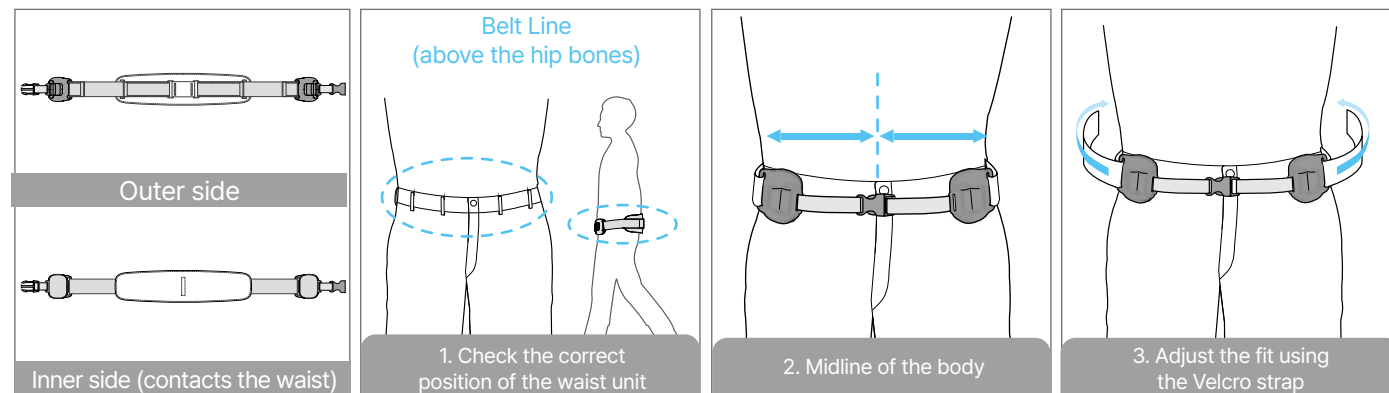
b. Waist Unit

**Warning**

- Do not wear the device on bare skin. Be sure to wear over sportswear.
- If the waist belt is worn incorrectly, it may result in injury or product malfunction.
- Before operating the device, check for any discomfort during movement.

Before putting the waist unit on, check its orientation (inner side / outer side). Make sure the outer side faces outward and is visible from the back.

1. Wrap the waist unit around your waist at the belt line of your pants (above the hip bones).
2. Make sure the waist buckle is positioned at the midline of your body and fasten the buckle.
3. Adjust the fit using the Velcro strap



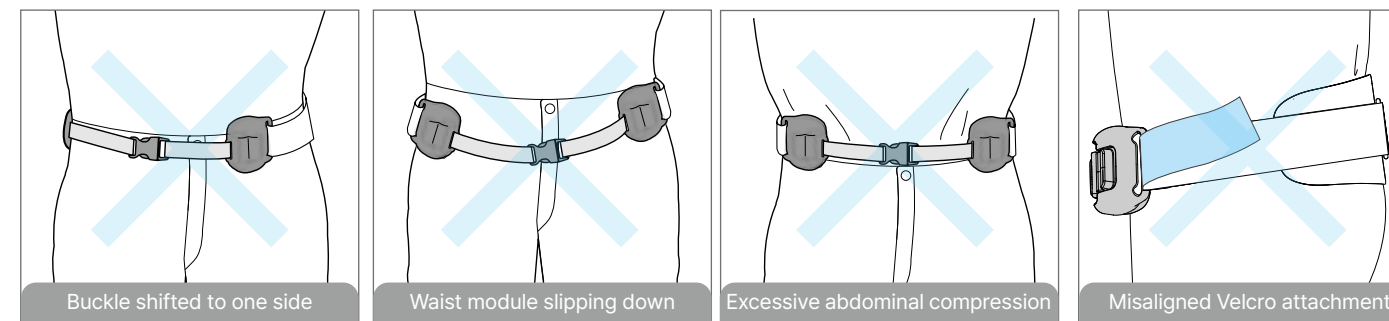
b. Waist Unit (Incorrect Examples)

A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.

**Warning**

- If the waist belt is worn incorrectly, it may result in injury or product malfunction.
- Before operating the device, check for any discomfort during movement.

- 1) Make sure the waist buckle is centered and not shifted to either side.
- 2) If the waist unit slips down, tighten it further using the Velcro fastener.
- 3) Adjust the size so that the waist unit does not apply excessive pressure to the abdomen.
- 4) If the waist unit becomes twisted, the main unit connector will not be visible. Adjust it to prevent twisting.
- 5) Check that the straps are properly connected.

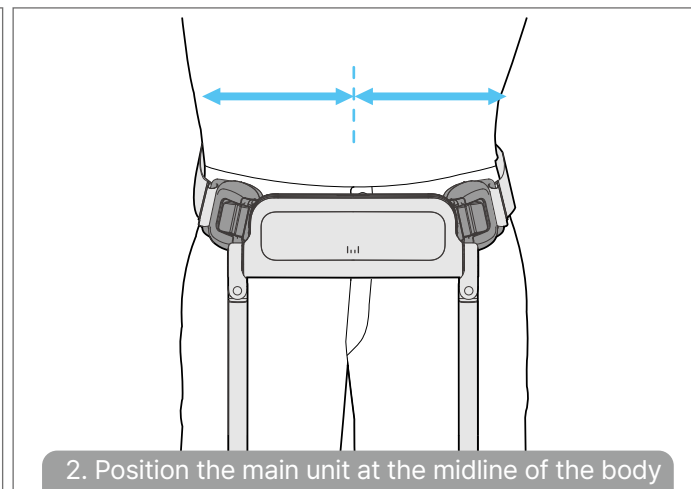
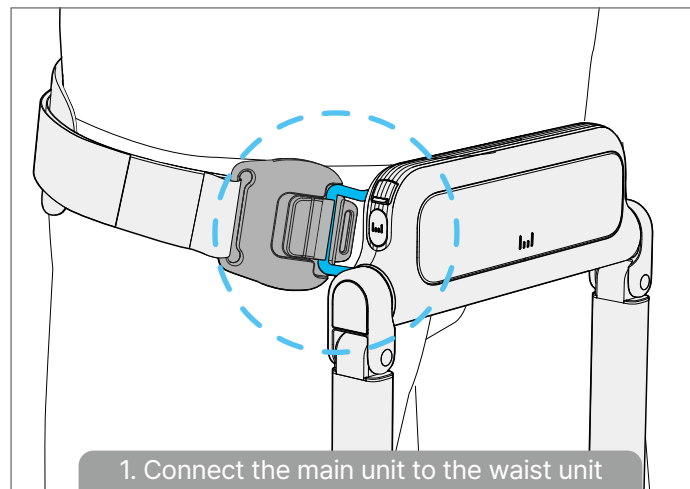


c. Waist Unit – Connecting the Main Unit

**Warning**

- If the main unit is not properly secured, it may detach while walking, which may result in injury or product damage.
- After connecting the main unit, make sure that it is securely attached.

- 1) Attach the main unit's loop to the main unit connector on the waist unit.
Make sure that the slider moves fully inward with an audible "click."
- 2) Check that the main unit is positioned at the midline of the body.

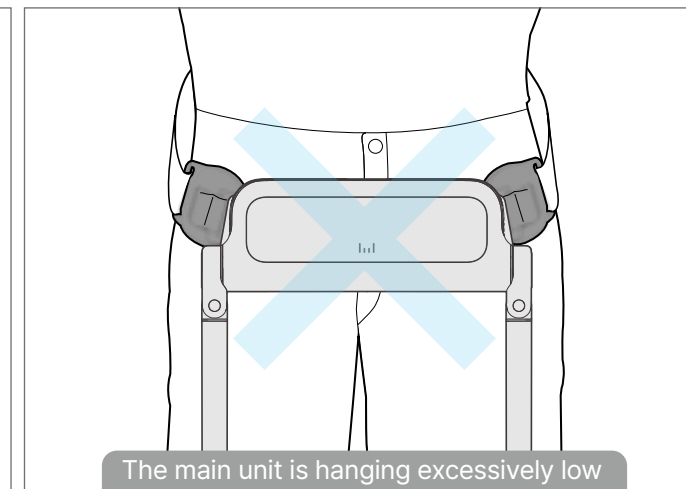
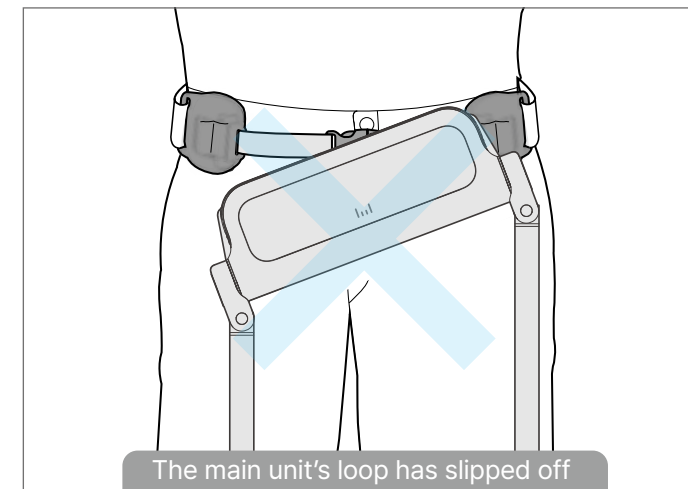


c. Waist Unit – Connecting the Main Unit (Incorrect Examples)

**Warning**

- If the main unit is not properly secured, it may detach while walking, which may result in injury or product damage.
- After connecting the main unit, make sure that it is securely attached.

- 1) Check that the main unit's loop is securely fastened to the main unit connector.
- 2) Make sure that the main unit is not hanging excessively low.



d. Leg Unit

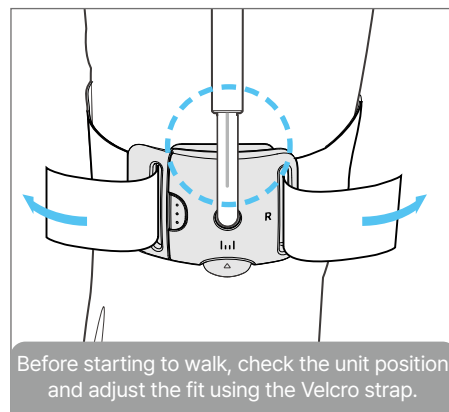
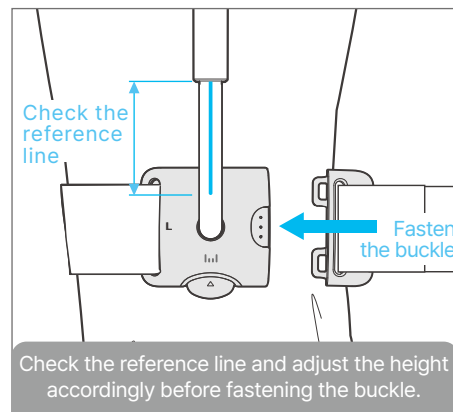
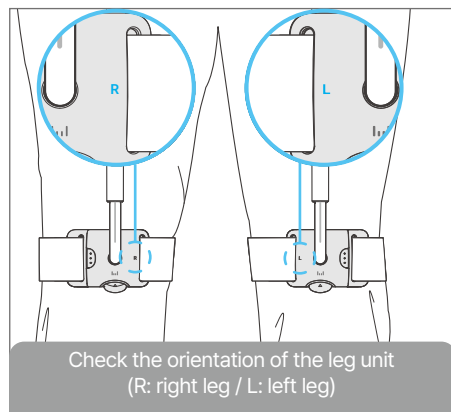
A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.



Warning

- If the leg unit is worn incorrectly, it may result in injury or product malfunction.
- Before operating the device, check for any discomfort during movement.
- Do not wear the device on bare skin. Be sure to wear over sportswear.
- Check the R/L markings on the leg unit and wear it correctly to prevent twisting.

- 1) Check the orientation of the leg unit (L and R markings.)
- 2) When wearing the leg unit, check the reference line on the front of the frame.
Adjust the frame so it is positioned within the reference line.
- 3) Fasten the leg buckle to secure the unit to the leg.
- 4) Adjust the fit using the Velcro strap on the leg band.
- 5) Before starting to walk, check the unit position (adjust so it is positioned within the inner reference line).

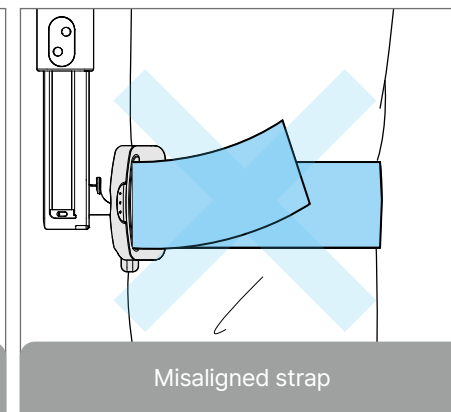
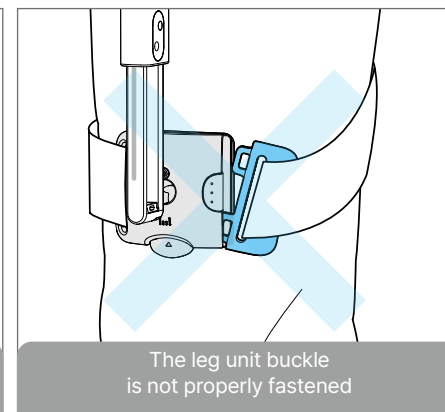
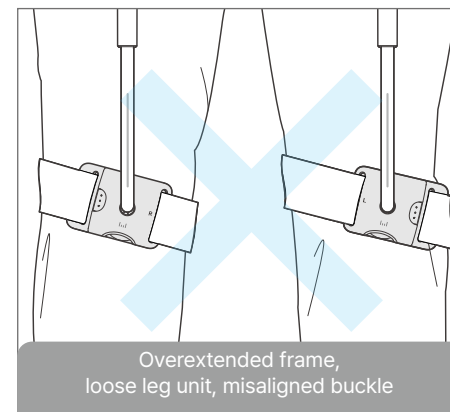


d. Leg Unit (Incorrect Examples)

Warning

- If the leg unit is worn incorrectly, it may result in injury or product malfunction.
- Before using the product, move in various directions to ensure there is no discomfort.

- 1) Check whether the leg frame is excessively extended.
- 2) If the leg unit is too loose, tighten it by adjusting the Velcro strap.
- 3) Make sure the buckle is securely fastened. (If the buckle detaches while walking, it may cause injury.)
- 4) Check whether the buckle is centered and not shifted to either side.
- 5) Check that all straps are securely connected.



e. Checklist (Before starting exercise after putting on the product, review the following matters.)



Caution

- After putting on the device, make sure that the buckles and Velcro straps are securely fastened.

- Make sure that the main, waist, and leg units are aligned with the midline of the body.
- Make sure that the waist unit and the main unit are securely connected.
- Make sure all Velcro straps on the waist and leg units are securely fastened, with the hook-and-loop surfaces fully engaged.
- Make sure that the leg frame and leg unit are securely connected.
- Make sure that the leg unit buckle is properly fastened on the outer side of the thigh frame.
- Before use, make sure that the battery level is at least 24%. (With the power turned on, press and hold the button on the side for 2 seconds and check that the white LED turns on.)

Battery Level	White LED on Top of the Main Unit
0 - 24 %	1 bar
25 - 49 %	2 bars
50 - 74 %	3 bars
75 - 100 %	4 bars

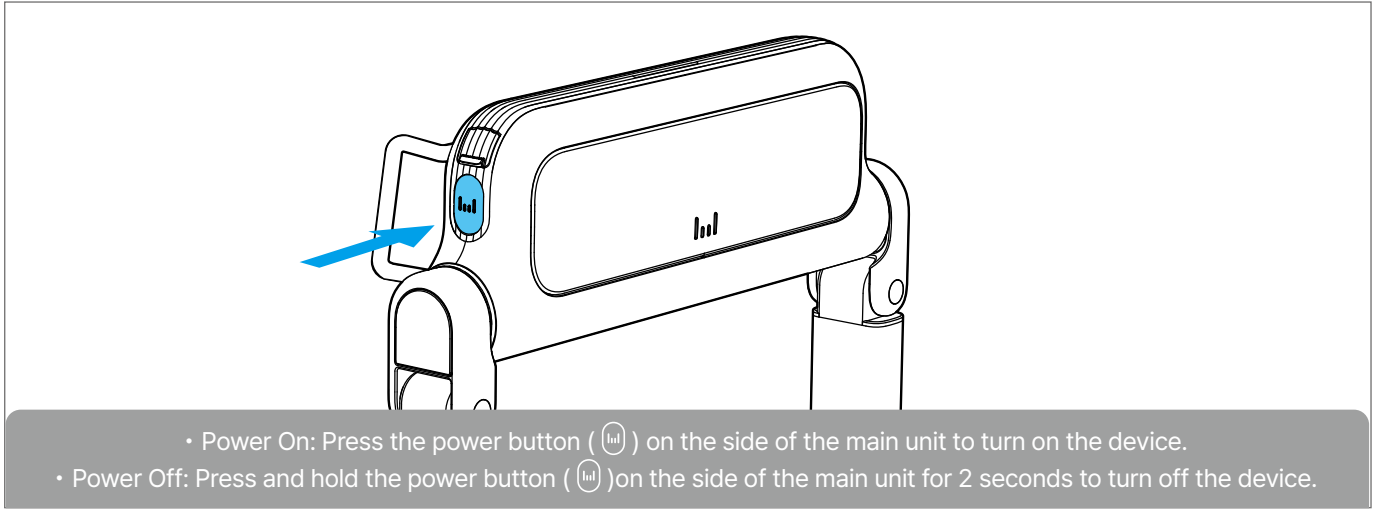
f. Turning the Power On/Off



Warning

- Be sure to turn the power on after wearing the device properly. Otherwise, it may result in injury.

- 1) Press the power button () on the side of the main unit to turn on the device.
- 2) Confirm that the device emits a sound and the LED indicator turns yellow.
- 3) To turn off the device, press and hold the power button () for 2 seconds. Confirm that the LED turns off.



g. Mode Descriptions

 Warning

- If a malfunction occurs, immediately stop the device by pressing and holding the power button for 2 seconds or pressing “Rest” mode on the app.
- Keep the USB-C charging port cover closed at all times during use.

 Caution

- Check the battery level before use and recharge if it is too low.
- When using the device for the first time, start on flat ground and at a low intensity to become familiar with device operation.
- The battery level can be checked when the WIM S is powered on.
- Refer to the LED indicators and app error codes to correctly interpret alerts.
- Do not place credit cards or magnetic storage media near the main unit.
- If the device overheats, it will automatically switch to a low-intensity mode.

- Changing modes while walking may result in injury or product malfunction. Please stop walking before switching modes.
- When initially switching to Aqua mode, leg resistance may cause foot dragging. Exercise caution to ensure safety.
- The available modes may vary depending on the model.
- While the product is powered on, use the intensity control buttons (⊕ ⊖) on the left to adjust the intensity level.

	Description
Rest Yellow LED	Stops torque generation during walking exercise. When the torque is turned off, the battery power is not consumed.
Air Blue LED	Uses assistive torque during normal walking exercise to reduce lower limb muscle load or expands the range of motion of the joints to make it easier to maintain proper walking posture. Proper walking posture refers to a dynamic gait with an upright upper body and a wide stride, rather than short, slow steps. This mode efficiently improves walking posture and reduces energy consumption during walking, allowing for longer exercises.
Aqua Light Blue LED	Uses resistive torque to increase the lower limb muscle load, with the goal of strengthening lower body muscles and ultimately increasing exercise intensity. By increasing the lower limb muscle load, this mode allows users to achieve higher training intensity even during short walking exercises.
Care Purple LED	This mode is intended for users with slow walking speed and short stride length. Users who walk at speeds of 2.5 km/h (0.7 m/s) or lower, or with a stride length of 38 cm or less, may use this mode instead of Air mode. If hip movement is limited and other modes do not provide noticeable benefits, this mode can be used first to help gradually increase stride length and walking speed.
Hiking Green LED	This mode provides effective assistance when climbing uphill or downhill during hiking, as well as when using stairs. Uphill walking increases hip joint range of motion and places significant load on the lower limbs, including the knees. This mode delivers tailored assistance to reduce muscle load and make hiking easier. During downhill walking or stair descent, the system provides support to control and slow the downward movement of the stepping leg, thereby reducing impact and helping protect the knees. As a result, users can enjoy greater comfort and endurance during extended hiking activities.

h. Checking the Battery Level

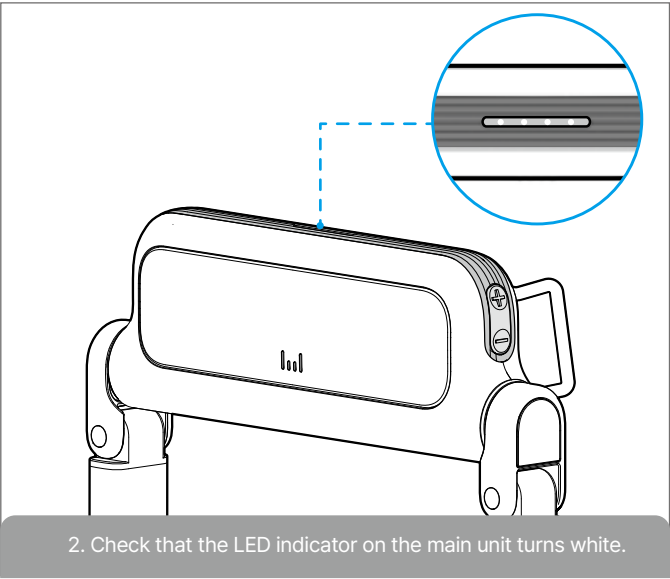
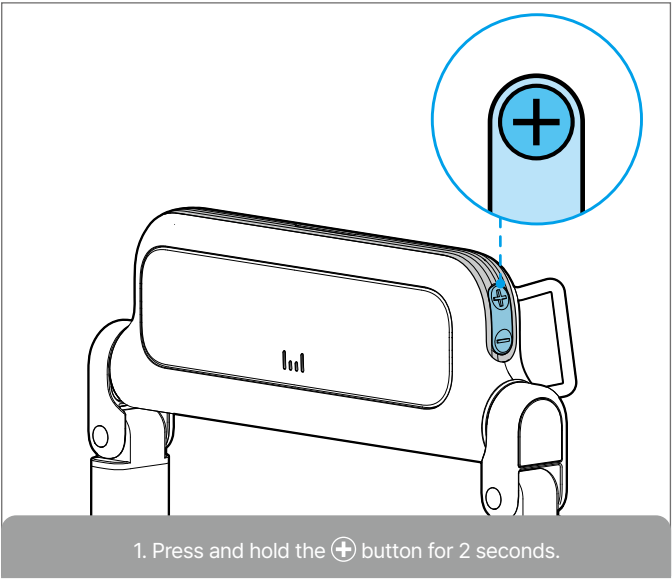
A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.



 Warning

- The battery level can be checked when the WIM S is powered on.

- 1) Press and hold the upper intensity control button ⊕ on the left for 2 seconds.
- 2) Check that the LED indicator on the top of the main unit turns white.



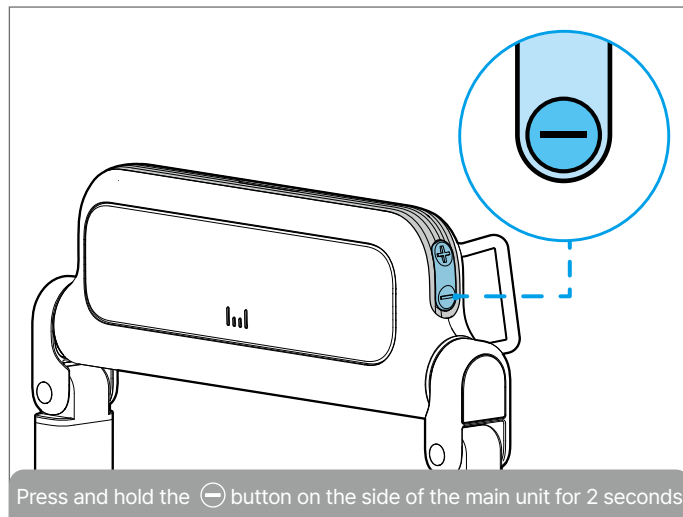
i. Mute and Volume Control

A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.

**Warning**

- Do not use the mute function in environments where visual confirmation is difficult, as the alert sound will not be emitted in mute mode.

- 1) Press and hold the lower intensity control button (⊖) on the left for 2 seconds.
- 2) Press and hold the lower intensity control button (⊖) on the left again for 2 seconds to unmute the device. Check the voice guidance.
- 3) When WIM S is restarted, the mute function will be automatically disabled.
- 4) After connecting to the app, the volume can be adjusted via [WIM Exercise > WIM Settings].

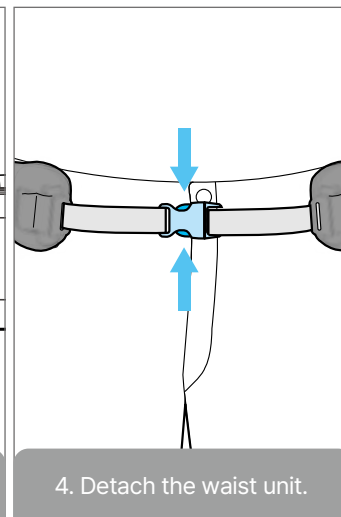
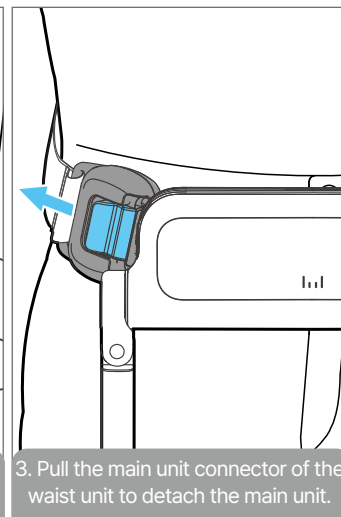
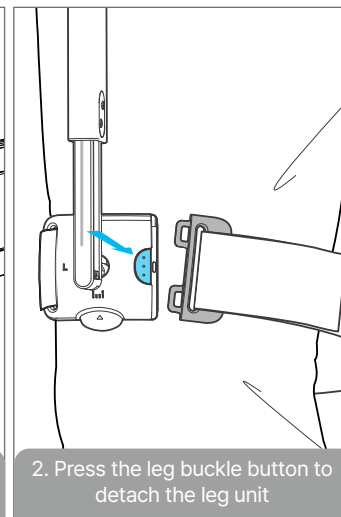
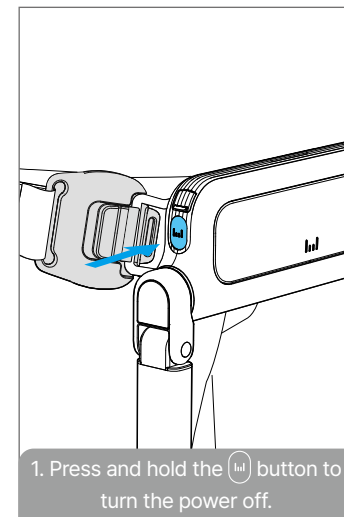


j. Device Removal

**Warning**

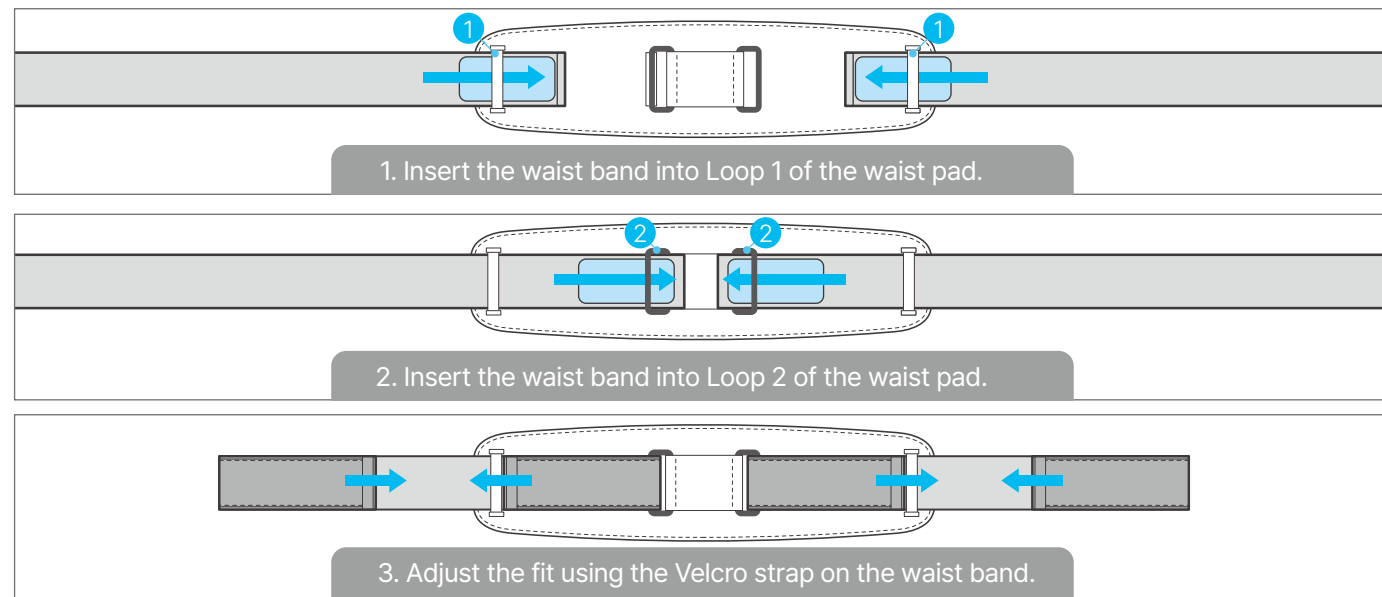
- Before removing the device, make sure that the power is turned off.
- Removing the device while the power is turned on may result in injury.
- To remove the main unit, hold it with one hand and detach it slowly, one side at a time.

- 1) Press and hold the power button (⏻) for 2 seconds to turn off the power. (Confirm that the LED is off.)
- 2) Press the leg buckle button to detach the leg unit.
- 3) Pull the slider on the main unit connector of the waist unit outward to separate the main unit from the waist unit. (Detach one side at a time.)
- 4) Release the waist buckle to remove the waist unit.



k. How to Change the Waist Pad

A video demonstrating how to put on the device is available on our YouTube channel. Scan the QR code to watch the video.

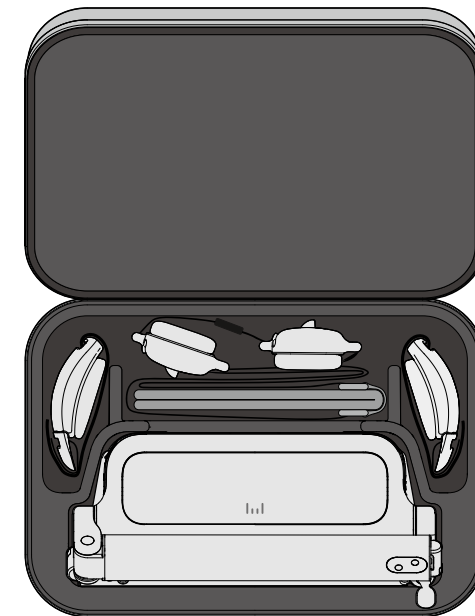
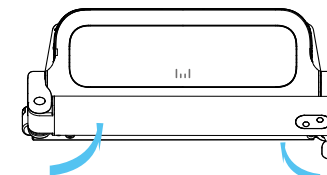
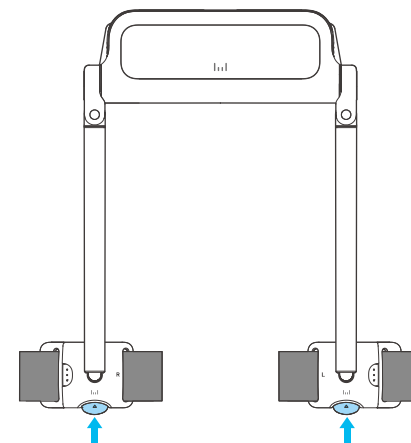


* Watch the YouTube video on how to change the waist/leg unit components.

- How to change the main unit connector of the waist unit
- How to change the leg band and buckle of the leg unit
- How to change the main unit frame band

l. Storage

- 1) Press the hole button to detach the leg unit.
- 2) Fold both sides of the main unit frame. (See illustration below.)
- 3) Place the main unit, waist unit, and leg unit into the storage pouch.



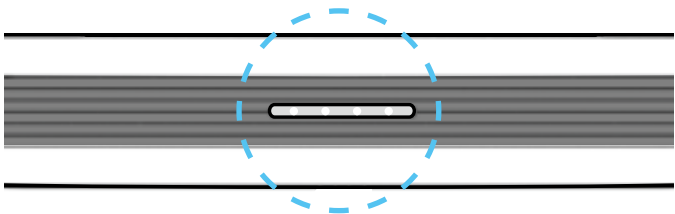
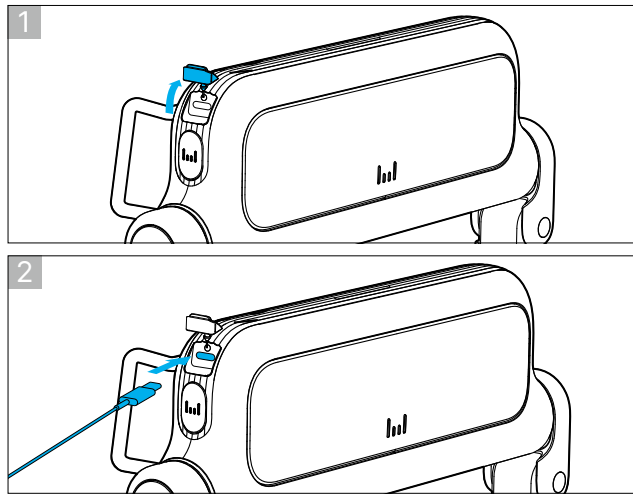
m. Charging

 Warning

- Check the battery level before and after exercise and charge the device if the battery is too low.
- If the battery becomes depleted during exercise, it may result in injury.
- Be sure to use an approved charger with guaranteed charging performance. Failure to do so may result in injury to the user or product malfunction.

- The device can be charged using a USB-PD adapter. When fully charged (100%), all LED indicators on the top of the unit will turn white.
- It may take up to 2 hours to fully charge.

Plugging in the Charger



Battery Level	White LED Indicators
0 - 24 %	1 bar
25 - 49 %	2 bars
50 - 74 %	3 bars
75 - 100 %	4 bars

5. Maintenance and Cleaning

5.1 Maintenance

Daily Inspection: Before each use, inspect the frame for cracks, ensure the hook-and-loop fasteners are functioning properly, and verify that the charging port is free of debris.

5.2 Cleaning

 Warning

- Do not use chlorine-based bleach.
- Do not dry clean.

- 1) Main Unit: Wipe the surface with a damp cloth. (Do not immerse in water.)
- 2) Waist & Leg Units
 - Wash separately.
 - Wash in water at 30°C.
 - Hand wash gently.
 - Machine wash on a gentle cycle if necessary.
 - Use a mild detergent.
 - Dry in the shade.
 - Hang on a hanger to dry.

5.3 Expected Lifespans of Consumables

 Caution

Replace the waist/leg unit if it shows signs of wear or deterioration even if it has not been used for a year.

Consumable parts that have exceeded their expected lifespan should be replaced. For purchase or replacement, contact the Customer Support Center.

- Waist/Leg Units: 1 year
- Battery: 1 year (approx. 300 charge/discharge cycles)
- Motor: approx. 8,000 hours

6. Troubleshooting

6.1 Pre-Reporting Checklist

a. Troubleshooting for Simple Problems



Warning

- If the joints do not move properly, contact the Customer Support Center.
- If the device exterior is damaged and the internal components are exposed, discontinue use and contact the Customer Support Center.
- If internal components are exposed, do not touch the device and discontinue use.
- Do not disassemble the device.
- If there is any smoke or sparks from the battery, immediately turn off the device and evacuate the area. Do not apply pressure or puncture a swollen battery. Dispose of it in a designated battery recycling container.

Problem	Cause	Solution
Power does not turn on	Battery is fully discharged	Charge the device for at least 30 minutes and try again
No torque	Device is in Rest mode	Press the mode button to switch to Air, Aqua, or another mode
The device cannot be connected to the app	Smartphone Bluetooth is off	Enable Bluetooth in your smartphone settings and restart the app

b. Events That Trigger App Notifications

Situation	App Notification	Cause	Solution
In case of receiving any of the following app notifications during the use of the WIM S	Please ensure correct posture (0x4000)	• Appears when climbing two steps at once on stairs in Air, Aqua, Care, or Hiking mode • Appears when entering Air, Aqua, Care, or Hiking mode with the legs excessively spread	Put on the leg units correctly, straighten the leg frames, and restart the device. Then, enter Air, Aqua, Care, or Hiking mode at your normal gait angle.
	Please check the device. (0x8000)	• Appears if a leg unit suddenly comes loose while in Air, Aqua, Care, or Hiking mode • Appears when entering Air, Aqua, Care, or Hiking mode while the leg units or frames are not properly secured	Secure the leg units and frames correctly and restart the device. Then, enter Air, Aqua, Care, or Hiking mode. *If you wish to remove the device, switch to Rest mode first before taking it off.
	Device temperature is high. Switching to Level 1. (0x6000)	• Appears when the device temperature is too high, indicating that the intensity will be reduced to Level 1 to prevent overheating	You can continue using Air, Aqua, Care, or Hiking mode at Level 1 intensity.
	Device temperature is too high. Stop device operation. (0x9000)	• Appears when the device temperature is too high	Stop using the device until it cools down.

c. Events That Do Not Trigger App Notifications

Checklist	
Device joints do not move during operation	Turn off the device and remove it from your body, without applying excessive force. Gently try moving the joints. If the problem persists or occurs repeatedly, contact the manufacturer.
Device case, frame, or wearable unit is damaged	Replace the damaged part before continuing use.
The device and smartphone app cannot connect via Bluetooth	Troubleshooting via smartphone: • Make sure that Bluetooth is enabled on the smartphone. • Close the WIM S app and restart it. • Restart the phone and try again. Troubleshooting via device: • Restart the device. • If the battery is low, charge before use. If the problem persists or occurs repeatedly, contact the manufacturer.
Assistive torque is too strong or not felt	Troubleshooting via smartphone: • Check if the device is shown to be in Air, Aqua, Hiking, or Care mode on the WIM S app. • Restart the phone and try again. Troubleshooting via device: • Restart the device. • If the battery is low, charge before use. If the problem persists or occurs repeatedly, contact the manufacturer.
Assistive torque suddenly stops during operation or device powers off unexpectedly	Turn off the device and remove it from your body. Restart the device or charge the battery if it is low. If the problem persists or occurs repeatedly, contact the manufacturer.

6.2 Purchasing Accessories

Accessory	Purchase Option
Waist Unit	Purchase as a set
	Purchase only the waist band (includes waist pad)
Leg Unit	Purchase as a set
	Purchase only the leg band (available in small and medium)
Frame Band	Purchase as a set
Suspenders	Optional

7. Regulatory Information

7.1 Regulatory Information

This product is in compliance with the following standards:

KC Standards: R-R-W4R-WIR-WIMS-KRA / ZK10012-25001 (Electromagnetic compatibility and battery safety)
European Standards: CE/CB, RED Directive, RoHS, and WEEE
FCC ID: 2BNNQ-WIRWIMSKRA / IC Certificate No.: 33535-WIRWIMSKRA
Battery Disposal Standards: This product contains a lithium-ion battery. Do not dispose of it as general waste. Dispose of it in a designated battery collection bin in accordance with local regulations.
IP Rating: IP65
Label Location: Attached inside the waist band connection part of the main unit.

1. FCC Statement
1) FCC Compliance Statement
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.
- 2) FCC Interference Statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help

3) FCC Caution
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

4) FCC Radiation Exposure Statement :
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment

2. ISED Statement
1) Innovation, Science and Economic Development Canada Certification Statement
This device complies with Innovation, Science and Economic Development Canada Certification licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. 2) Innovation, Science and Economic Development Canada Certification Radiation Exposure Statement (Déclaration d'exposition aux radiations):
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé

3. CE RED EU Declaration
- This product is compliant with the essential requirements and other relevant provisions of the Directive 2014/53/EU
- This product can be used in which EU members, in accordance with Article10(10) / or this product can be used in at least one EU country, in accordance with Article 10(2)

7.2 Disposal Guidelines

When the product reaches the end of its life, dispose of it at an electronic recycling center or a designated collection location to prevent environmental pollution.



Warning

- This product cannot be disposed of as household waste.
- Check the WEEE marking and dispose of the product at a designated collection facility.
- For detailed disposal information, contact your local authorities or waste management service provider, or the vendor.

8. Appendix

8.1 Product Specifications

Dimensions (folded)	23.3 cm (W) × 9.75 cm (H) × 6.7 cm (D)
Weight	(Main Unit) Approx. 1.16 kg, (Total) Approx. 1.6 kg
Maximum Torque	6 Nm
Battery Type	Lithium-ion battery 14.4 Vdc / 3.35 Ah (41NR19/66)
Charging Voltage	5-20 Vdc
Power Supply	100-240 V-, 50/60 Hz
Wireless	Bluetooth Low Energy (BLE) 5.0 / 2402–2480 MHz / 40 channels / GFSK modulation
Specifications	
IP Rating	IP65

* Size and weight may vary depending on product configuration and manufacturing process.

8.2 Customer Support

For additional help, videos, and FAQs, visit <https://corp.wirobotics.com>

