



MerryIoT Sensors & App

Quick Installation Guide

Content

1. Safety Warning.....	3
2. Open Box Content List.....	4
3. Sensor Input/ Output.....	6
4. Sensor Introduction.....	8
5. Sensor Installation.....	9
6. Sensor APP functions.....	17
7. Battery Replacement.....	21
8. FAQ.....	26
9. Copyright Notice.....	27



Safety Warning

Read this manual before attempting to install the device!

Failure to observe recommendations included in this manual may be dangerous or cause a violation of the law. The manufacturer, **Browan Communications Inc.** will not be held responsible for any loss or damage resulting from not following the instructions of this user manual.

- The device must not be dismantled or modified in any way.
- The device is only intended for indoor use. Do not expose it to moisture.
- The device is not intended to be used as a reference sensor, and **Browan Communications Inc.** will not be held liable for any damage which may result from inaccurate readings.
- The battery should be removed from the device if it is not to be used for an extended period. Otherwise, the battery might leak and damage the equipment. Never leave a discharged battery in the battery compartment.
- The device must never be subjected to shocks or impacts.
- To clean the device, wipe with a soft moistened cloth. Use another soft, dry cloth to wipe dry. Do not use any detergent or alcohol to clean the device.

Contact Us

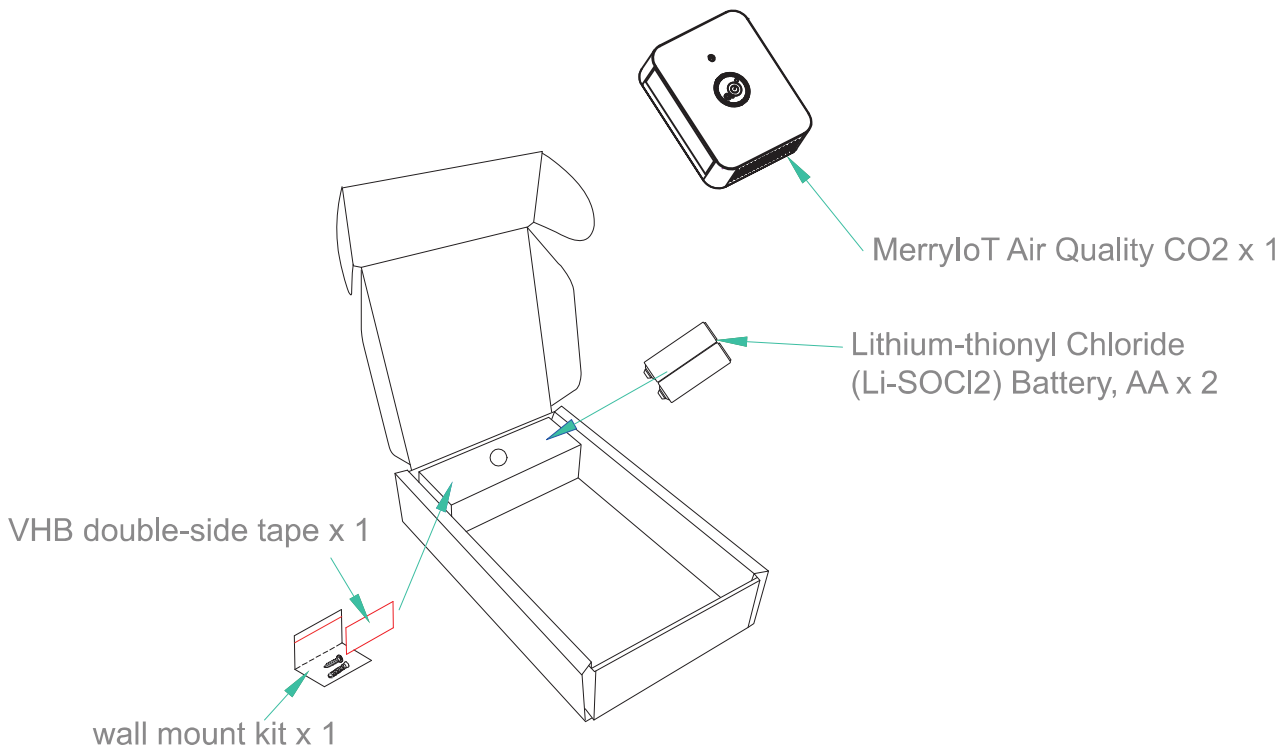
Website: <https://www.merryiot.com>

E-mail: sales@merryiot.com
support@merryiot.com

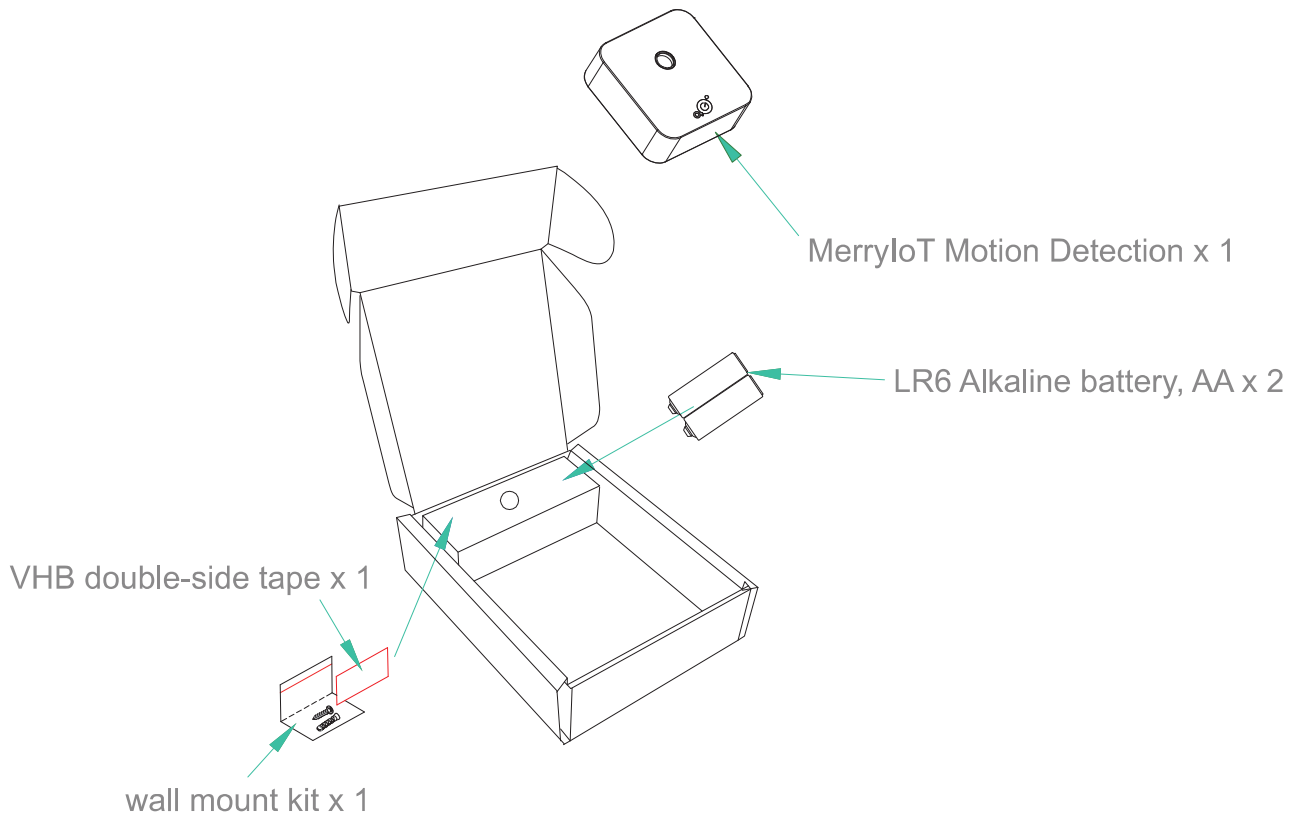
Address : Browan Communications Incorporation
No.15-1 Zhonghua Rd., Hsinchu Industrial Park,
Hukou, Hsinchu, Taiwan, 30352

Chapter 2 - Package Content

MerryloT Air Quality CO2(CD10)

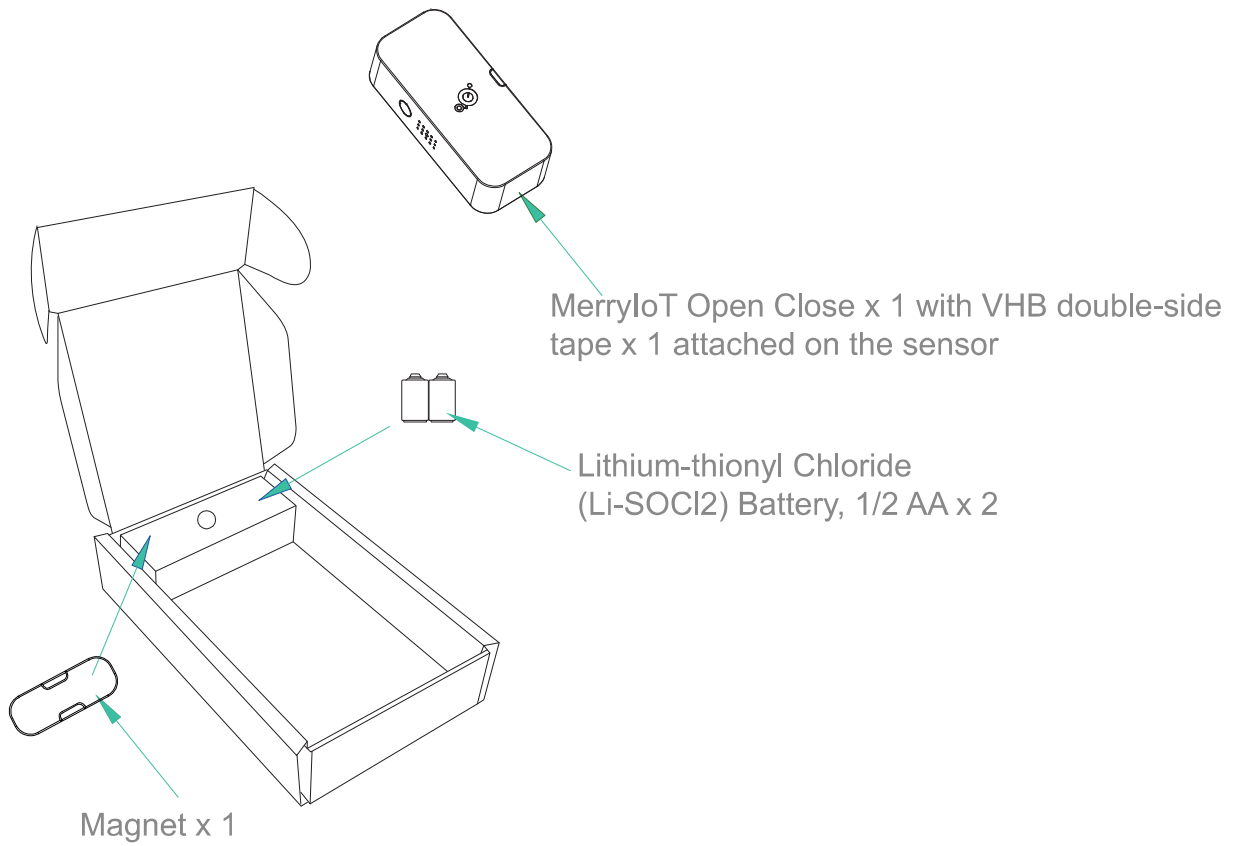


MerryloT Motion Detection(MS10)

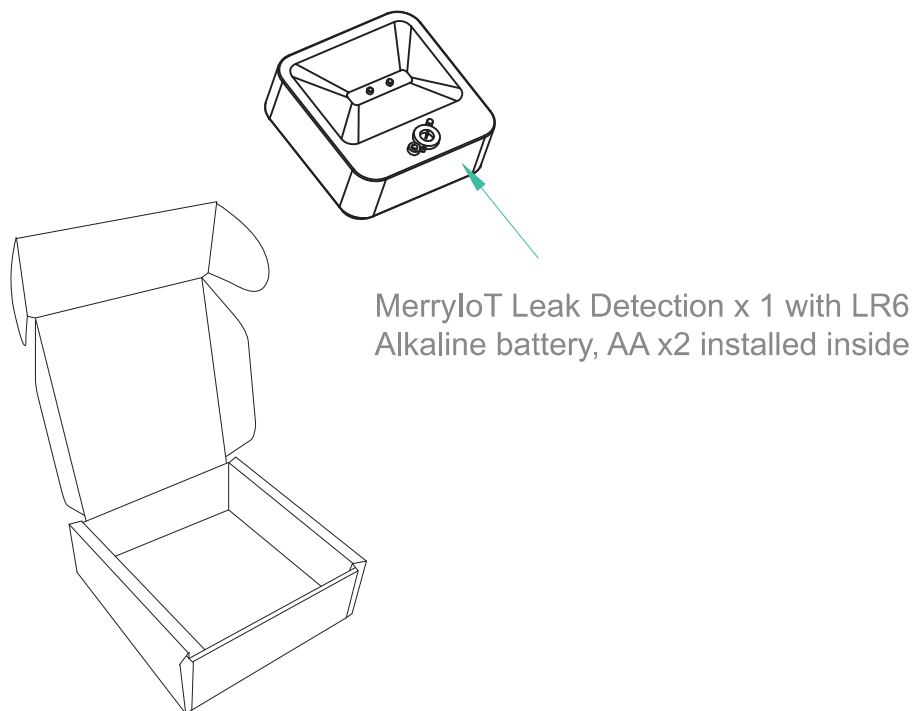


Chapter 2 - Package Content

MerryloT Open / Close(DW10)

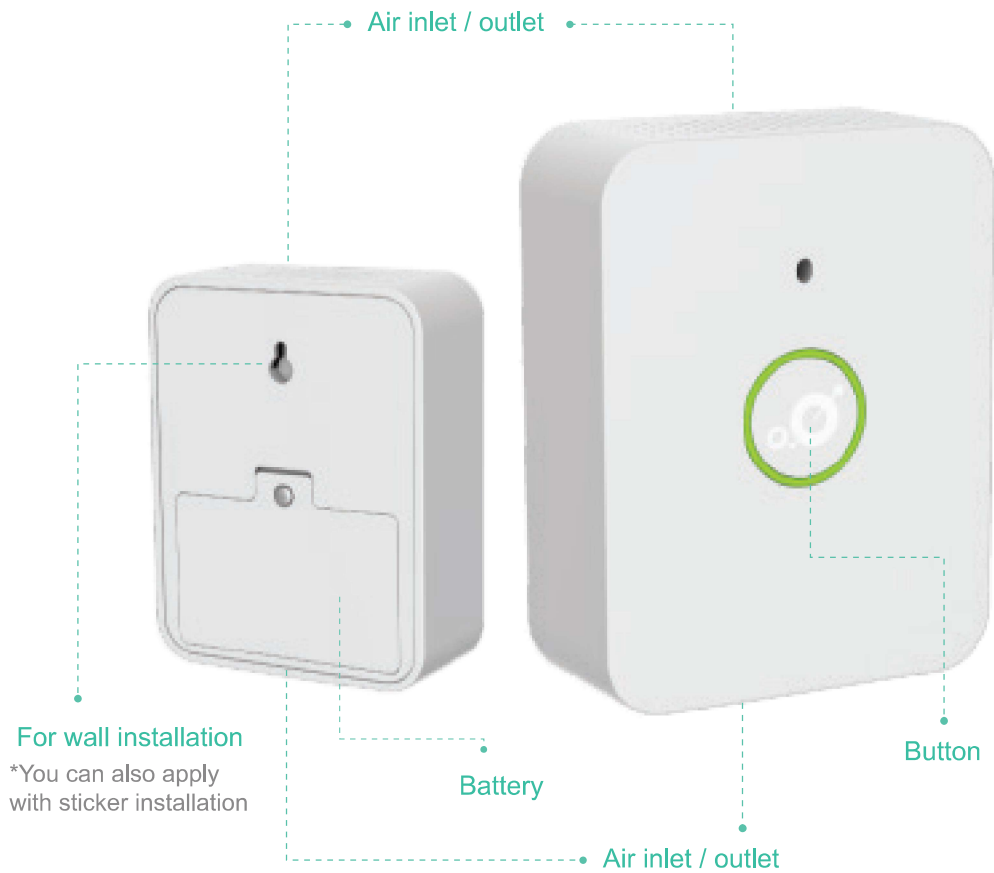


MerryloT Leak Detection(WL10)

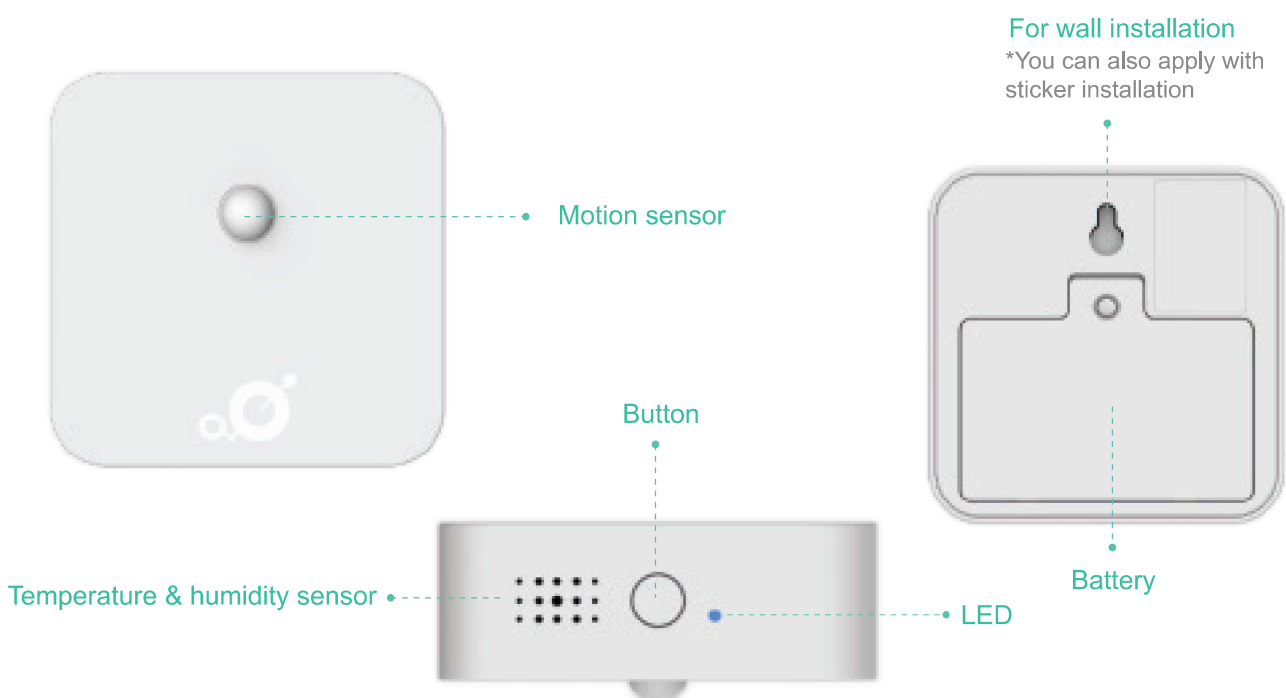


Chapter 3 - Input / Output

MerryloT Air Quality CO2(CD10)



MerryloT Motion Detection(MS10)

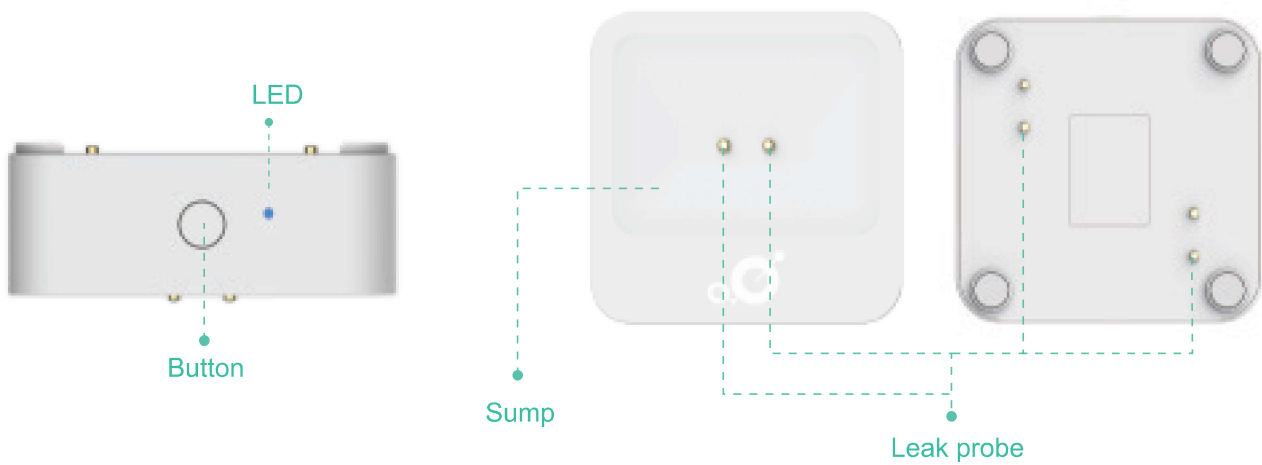


Chapter 3 - Input / Output

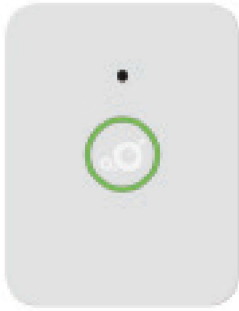
MerryIoT Open / Close(DW10)



MerryIoT Leak Detection(WL10)



Chapter 4 - Sensor Introduction



MerryIoT Air Quality CO2
CD10

MerryIoT Air Quality CO2 sensor (CD10) is a professional LoRaWAN smart device. Its minimalistic design makes it ideal for mounting on walls at home or at work. It provides full surveillance over the CO2 levels, temperature, and humidity.

Features:

- 3 sensors in 1 (CO2 & Temperature & Humidity)
- Built-in buzzer for alarm if the CO2 level is more than 1000 ppm
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation
- Up to 2 years of battery lifetime

*Note: Battery life is mainly determined by the reporting frequency. Other factors include moisture and high temperature.



MerryIoT Motion Detection
MS10

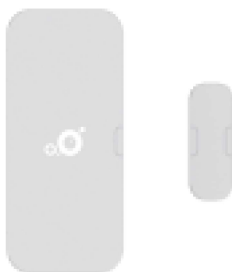
MerryIoT motion detector (MS10) is an easy step to a safer home. Monitor front and back doors, driveways, sheds, garages, and gates. It can be applied to all your properties. It provides an additional level of security and safety to your properties and protects your loved ones. Not to mention is alerts you in case of emergency.

Features:

- 4 sensors in 1 (PIR & Temperature & Humidity & Vibration)
- Detect human presence accurately
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation
- Alarm message for the device is been moved or tampered
- Up to 3 years of battery lifetime

*Note: Battery life is mainly determined by the reporting frequency. Other factors include moisture and high temperature.

- Ultrawide range detection
 - 125° Horizontal
 - 100° Vertical
 - Up to 7 m distance



MerryIoT Open / Close
DW10

The MerryIoT Open/Close sensor (DW10) give you a peace of mind, anywhere, anytime. Get real time alerts at the exact moment you have unexpected guests, broken windows, opened safes, an opened mailbox or escaped pets.

Features:

- 4 sensors in 1 (Open/Close & Temperature & Humidity & Vibration)
- LoRaWAN technology with a long communication distance
- Alarm message for the device is been moved or tampered
- Coverage test button for easy installation
- Up to 3 years of battery lifetime

*Note: Battery life is mainly determined by the reporting frequency. Other factors include moisture and high temperature.

Chapter 4 - Sensor Introduction



MerryloT Leak Detection
WL10

The MerryloT Water Leak Sensor (WL10) will in real-time alert you the moment it comes in contact with leaking water. Don't ever worry about leaks or floods in your basement, under your sinks, from your water heater, or anywhere else in the house.

Features:

- 4 sensors in 1 (Drip/Leak/Flood & Temperature & Humidity & Vibration)
- Built-in water-sensing probes on top and bottom for leak/flooding detection
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation
- Alarm message for the device is been moved or tampered
- Up to 3 years of battery lifetime

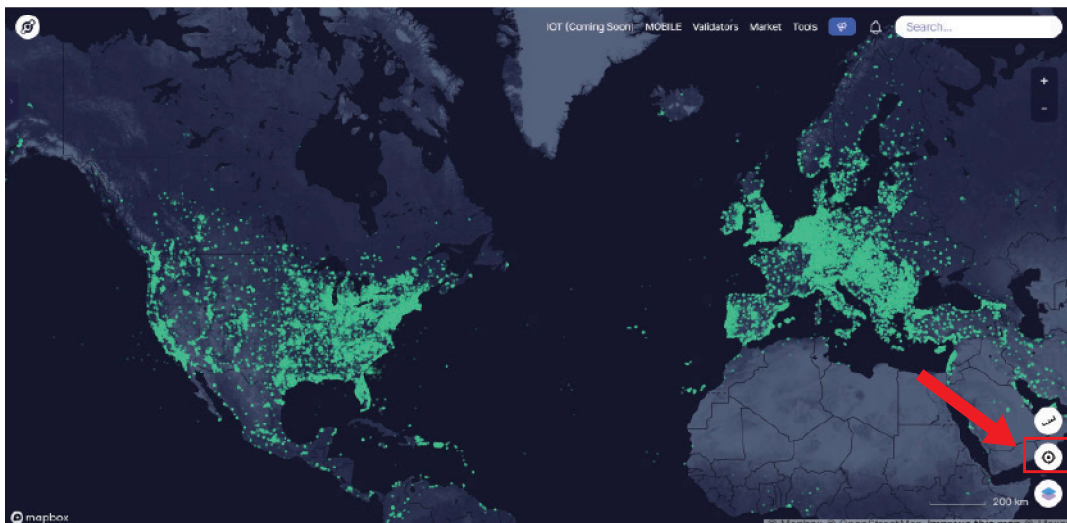
*Note: Battery life is mainly determined by the reporting frequency. Other factors include moisture and high temperature.

Chapter 5 - Sensor Installation

- 1 Please make sure you have Helium coverage before installing the MerryloT Sensors.
 1. Best senerio is you already have a Helium miner up and running.
 2. If you don't have a Helium miner running, you need to check your neighborhood's helium coverage. Go to <https://explorer.helium.com> and follow the following steps.

- 1 Press "find my location" icon, and the map will redirect to the vicinity of your location.

- 2 According to the vicinity of your location, to find your accurate location to see if any Helium coverage around here.



*Annotation: Hexagons in Helium, it is a semi-precise point location covering 300 m² (3200 ft²), which is comparable to the footprint of a large house. The number display on the Hexagons, it means how many Helium hotspot is been asserted location here, you could imagine that how many Helium hotspots installed in 300 m² (3200 ft²).

Chapter 5 - Sensor Installation

2 Install and launch MerryIoT mobile application on your phone

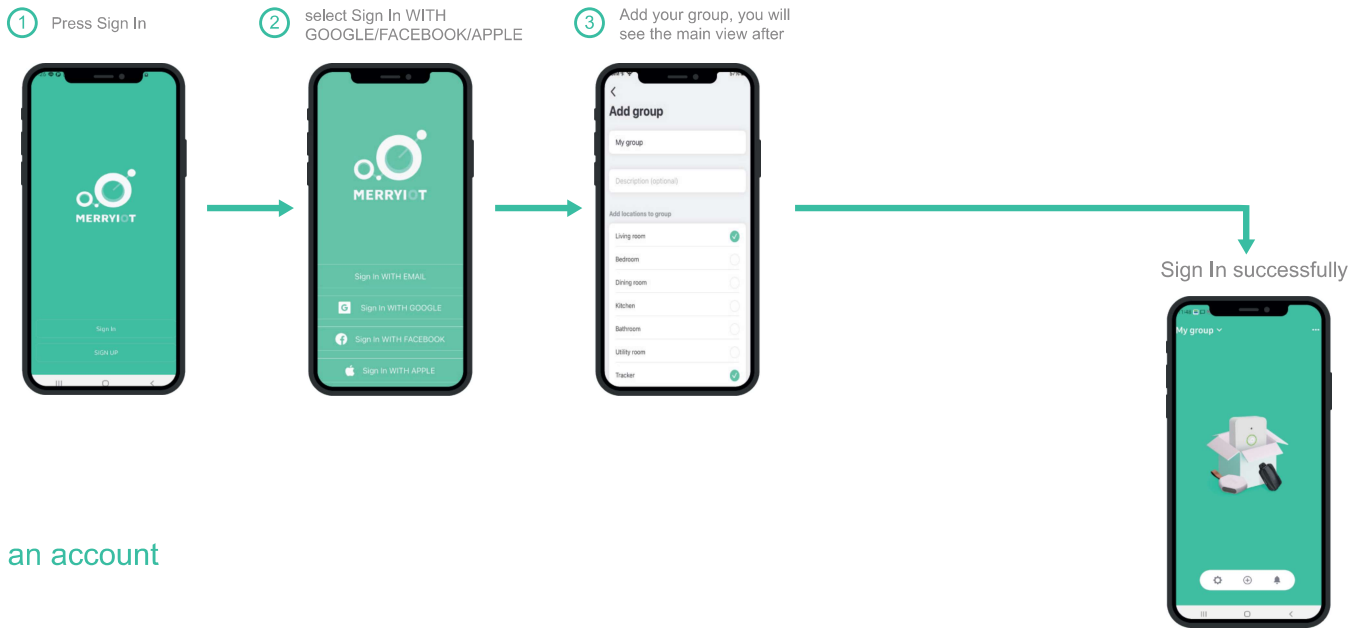


*Search:MerryIoT Sensor

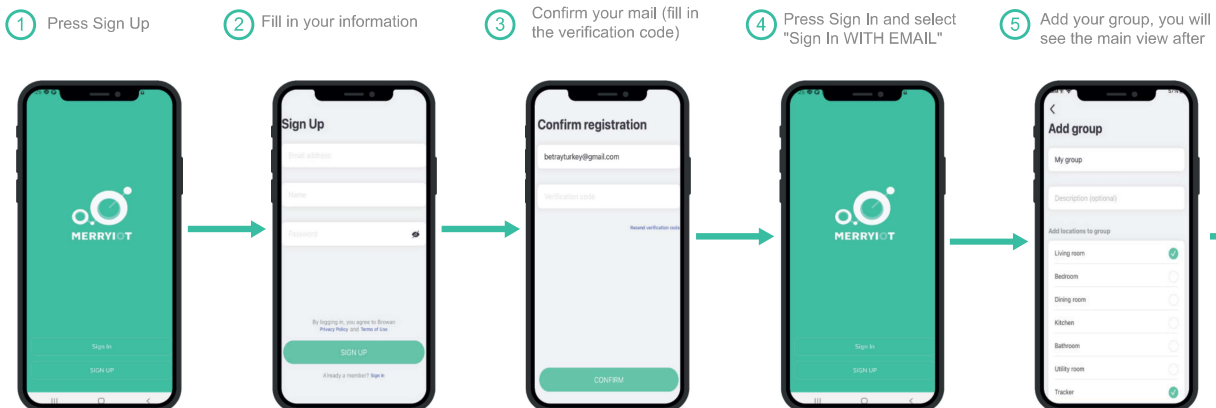


3 Register your account.

Sign in by social media



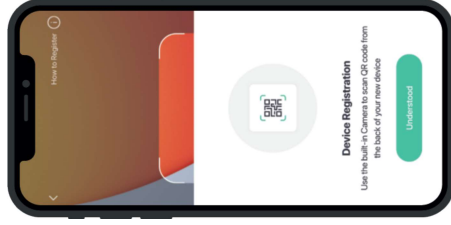
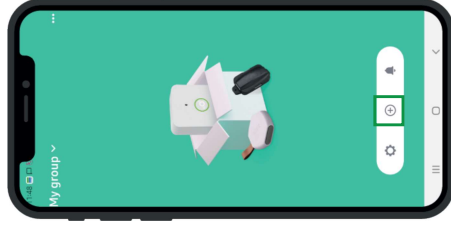
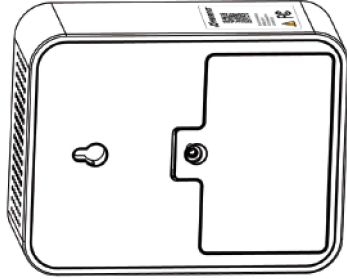
Create an account



Chapter 5 - Sensor Installation

4 Add your device to the App

MerryIoT Air Quality CO₂
CD10



After scan

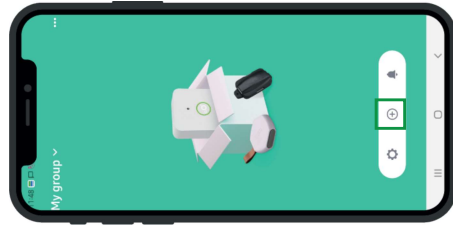
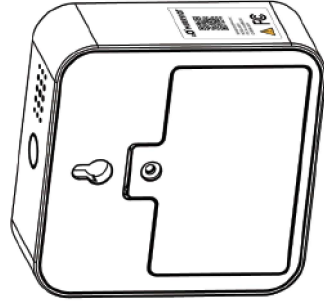


fill in the name and the location



Click the "complete", after the group page show, you successfully added your sensors!

MerryIoT Motion Detection
MS10



After scan



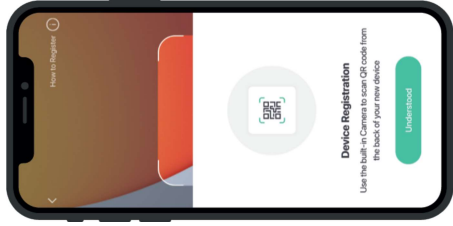
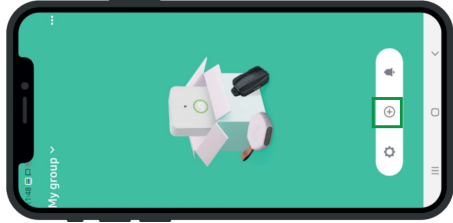
fill in the name and the location



Click the "complete", after the group page show, you successfully added your sensors!

Chapter 5 - Sensor Installation

MerryloT Open/Close DW10



After scan

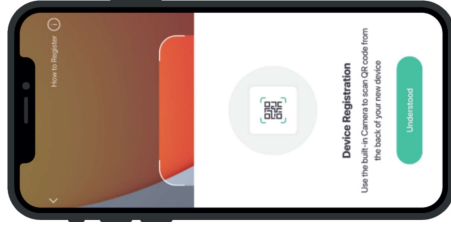
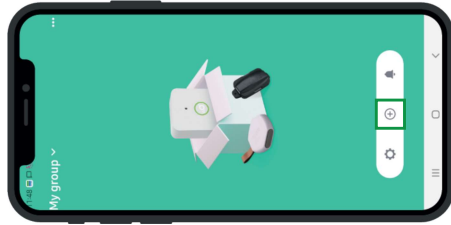
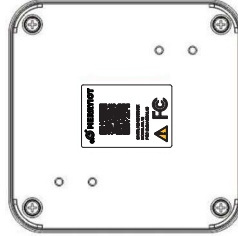


fill in the name and the location



Click the "complete", after the group page show, you successfully added your sensors!

MerryloT Leak Detection WL10



After scan



fill in the name and the location

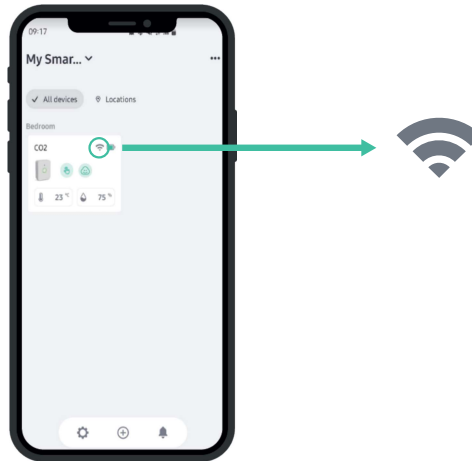


Click the "complete", after the group page show, you successfully added your sensors!

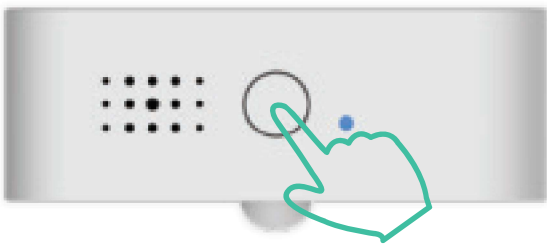
Chapter 5 - Sensor Installation

- 5 When the sensor is successfully online, the LED will go on to constant lumination for 3 seconds.
- 6 Once the Sensor is successfully connected, the following icon will appear on the dashboard
*Press the button on the sensor, the sensor's real-time status will be updated.

MerryIoT Air Quality CO2
CD10



MerryIoT Motion Detection
MS10

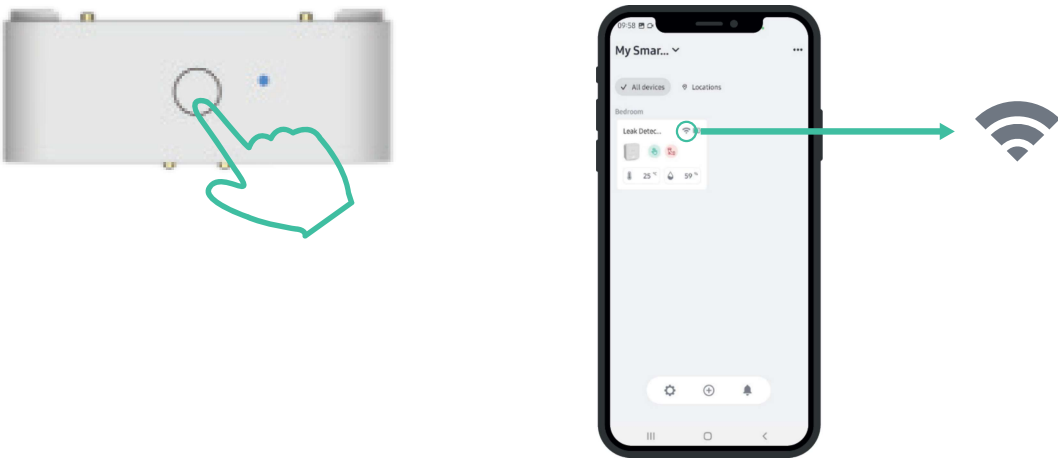


Chapter 5 - Sensor Installation

MerryIoT Open/Close
DW10



MerryIoT Leak Detection
WL10



Chapter 5 - Sensor Installation

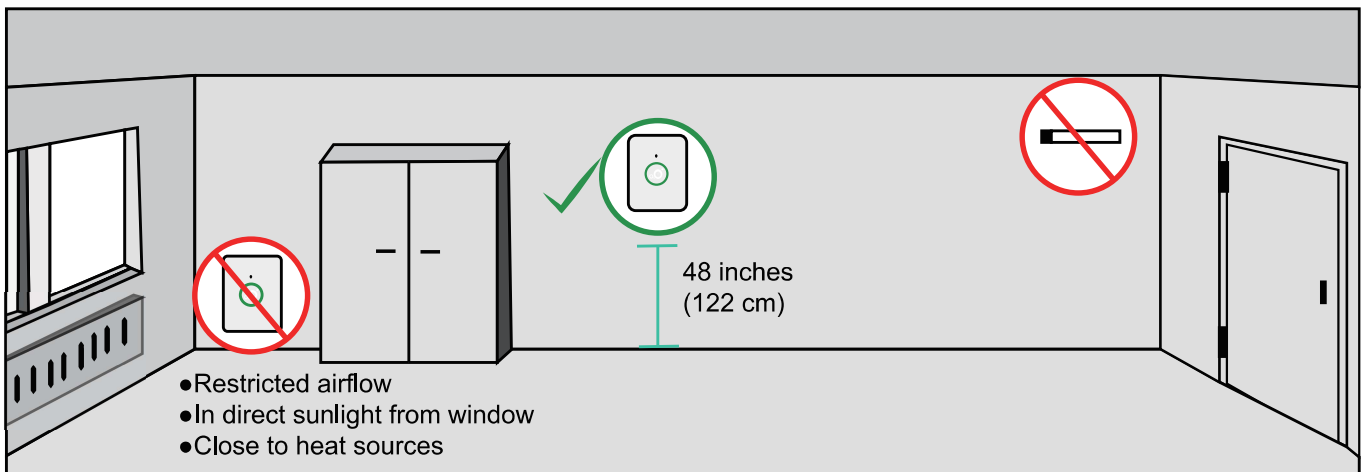
- Once the Sensor is connected, install the Sensor to your desired location

MerryloT Air Quality CO2(CD10)

It is important to know, that the CO2 sensor unit should be mounted at 48 inches or 122cm above the floor, and they should not be near outside doors or windows that can make the space appear to have more fresh air than it actually does. Think of CO2 flowing like water. Water will fill a cup from the bottom upwards. The same will happen in interior spaces like draft coolers, restaurants, breweries, and grow facilities. Because the CO2 gas is heavier than normal air it will flow down stairs or collect in low lying areas first.

So, please avoid these placement:

- Restricted air flow
- In direct sunlight from windows
- Close to heat source



MerryloT Motion Detection(MS10)

Assets where intruders are most likely to enter, or other applications like occupied space purpose.

Places like:

1. Garage Entrance (for security purpose)

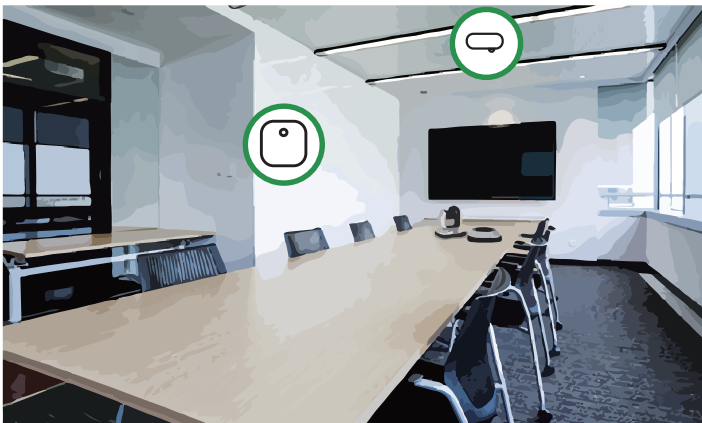
The eye of the sensor should point to the direction where the intruders may come from.

2. Meeting Room (for occupied space purpose)

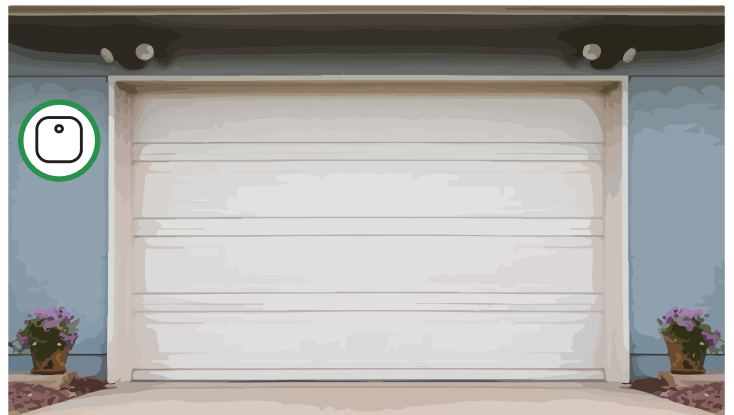
It is recommended to install 2 MerryloT Motion Detections in one space where you would like to know whether the space is occupied or not.

One with the eye of the sensor pointing the entrance of the space, and the other one pointing at where people assumed to be stayed in the space, the meeting table in this case.

Meeting Room



Garage Entrance

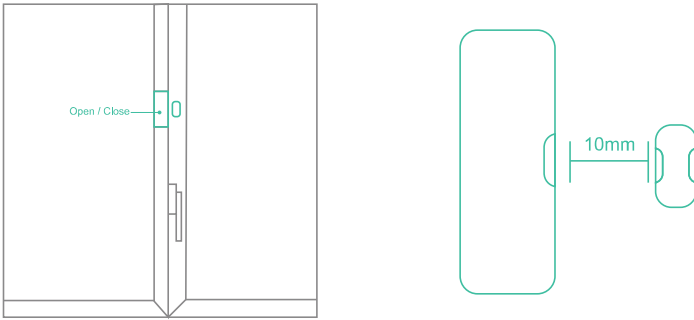


Chapter 5 - Sensor Installation

MerryIoT Open/Close(DW10)

1. Clean the installaon area.
2. Remove the protecve layer from the double-sided tape on the door sensor, place the door sensor in the desired-
posion(the fixed part of your door or window), and press firmly for at least 5 seconds.
3. Remove the protective layer from the double-sided tape on the magnet, place the magnet in the desired
postion(align the magnet marking with the hall sensor marking on the sensor), and press firmly for at least 5
seconds.

*Note: the maximum sensing distance is 10mm.



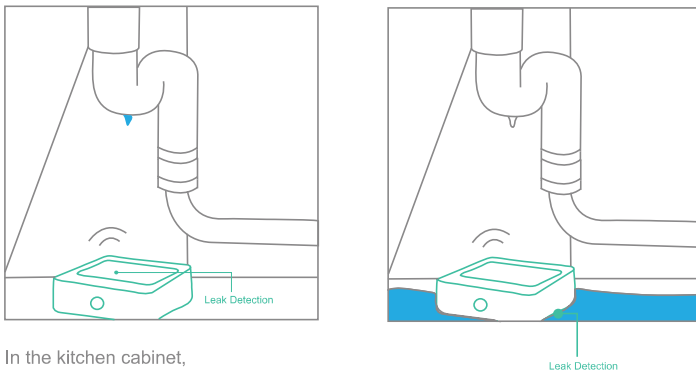
In any rooms / mailbox
on the window or door

MerryIoT Leak Detection(WL10)

The most common application for our water detection sensors is underneath AC units that are susceptible to leaks. However, it is important to ensure you cover other potential threats such as existing pipework, heating systems, kitchens, toilets and areas that may be likely to flood first in the event of extreme weather conditions (by doors/windows)

It is recommended to install multiple MerryIoT Leak Detection in one space, where the potential leakage may occure.

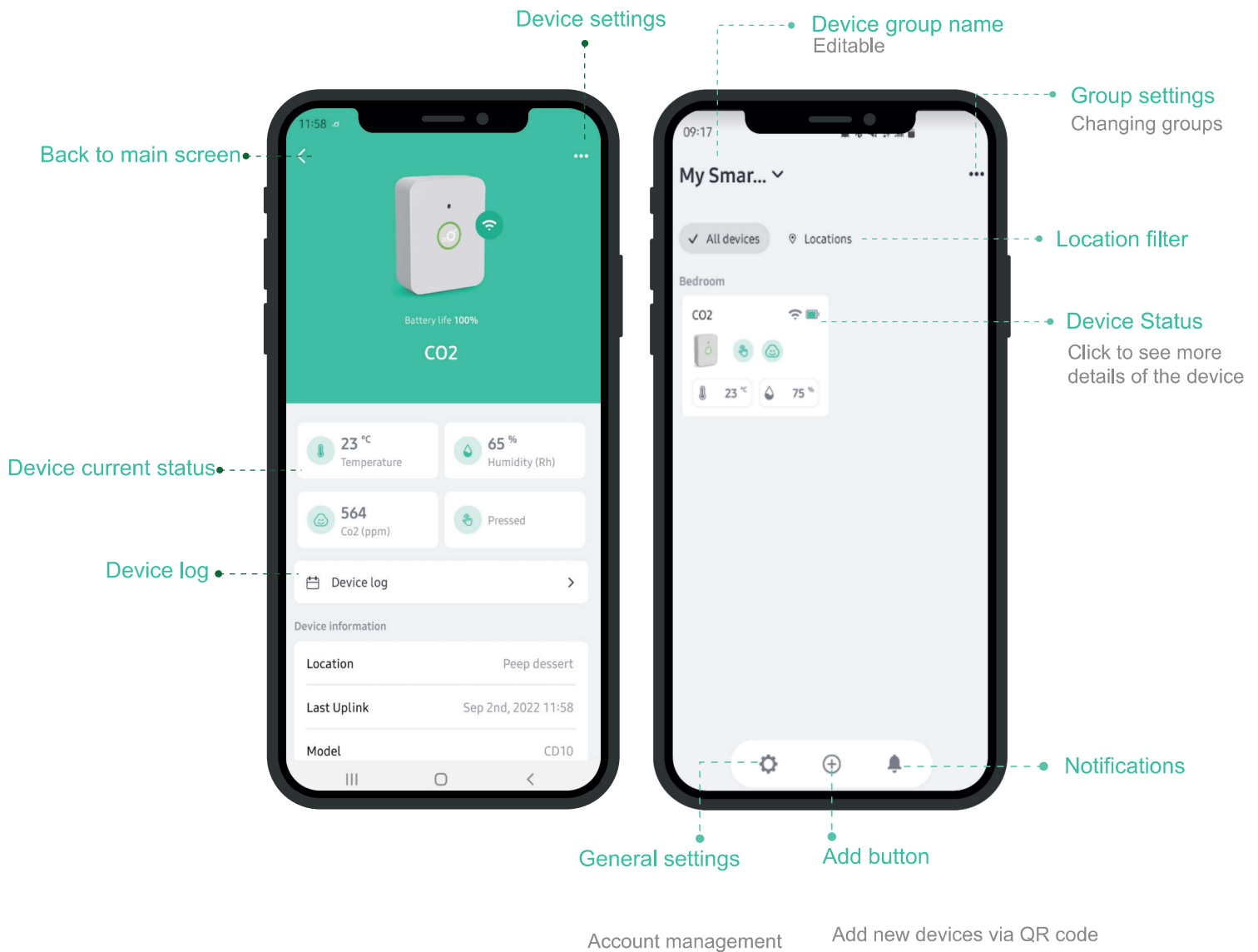
1. For Home basement use
2. For server rooms and data centers



In the kitchen cabinet,
where the water pipes locate

Chapter 6 - APP Functions

MerryIoT Air Quality CO2(CD10)



Icons

- Battery status
Sufficient / Low / Exhausted
- LoRaWAN Connection status
On/off
- Temperature (oC / oF)
- Relative Humidity (%)

Both the icon of Temperature and Relative Humidity will be updated by 2 situations:

1. Periodically every 1 hour
2. Press the device's test button

- Button pressed
this icon will be displayed on your app dashboard when you press the device's test button, also the CO2 level, temperature and humidity will be updated at the same time.

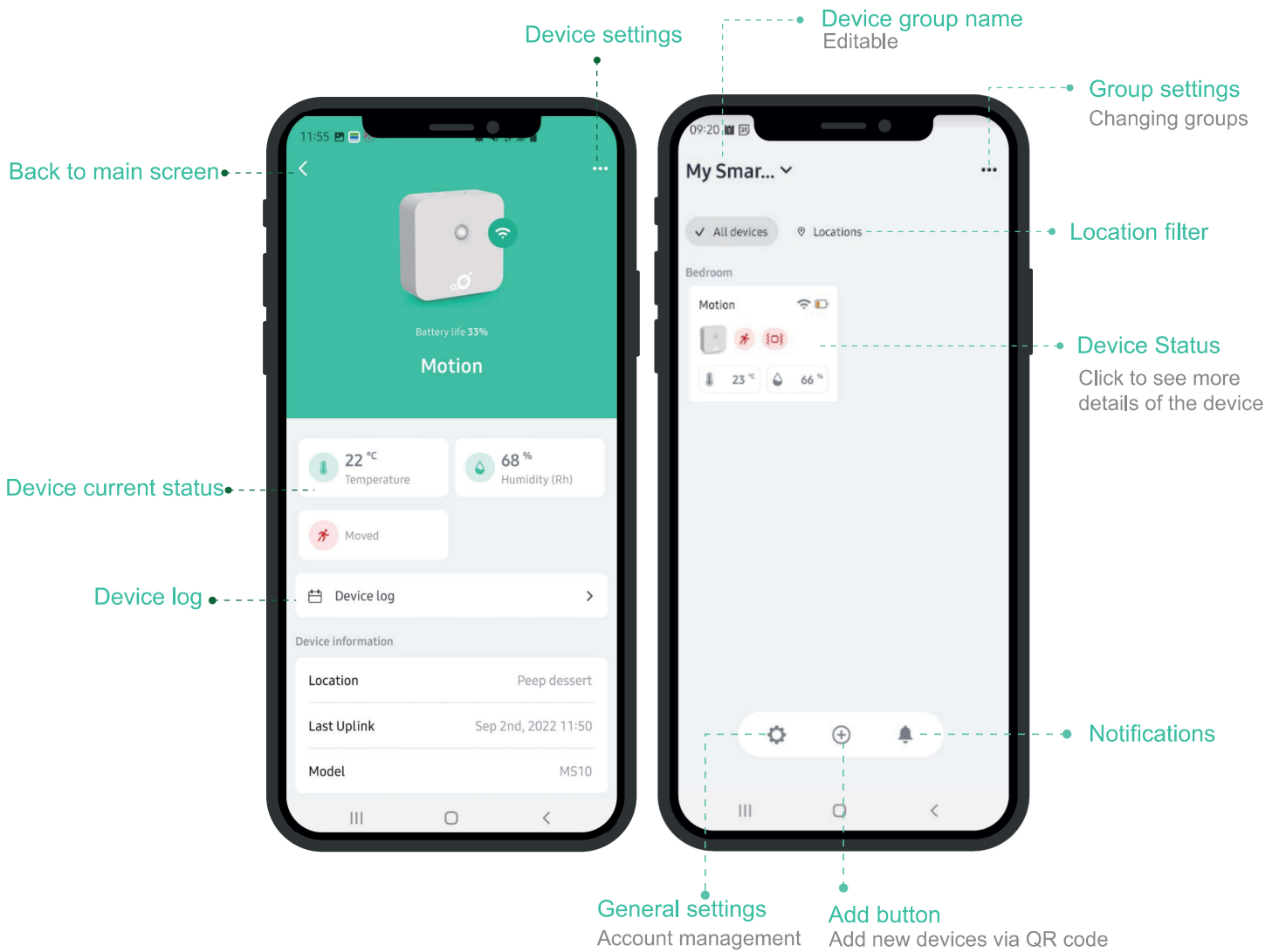
- Air quality/CO₂ concentration
Excellent (Green): <800 ppm
Good (Yellow): 800~1000ppm
Bad (Red): >1000 ppm

This icon will be updated by 3 situations:


1. Periodically every 1 hour
2. Immediately if the CO2 level is more than 1000 ppm
3. Press the device's test button


Chapter 6 - APP Functions


MerryIoT Motion Detection(MS10)




Icons

- 

Battery status
Sufficient / Low / Exhausted
- 


LoRaWAN Connection status
On/off
- 


Temperature (oC / oF)
- 


Relative Humidity (%)

Both the icon of Temperature and Relative Humidity will be updated by 2 situations:

1. Periodically every 1 hour
2. Press the device's test button

- 

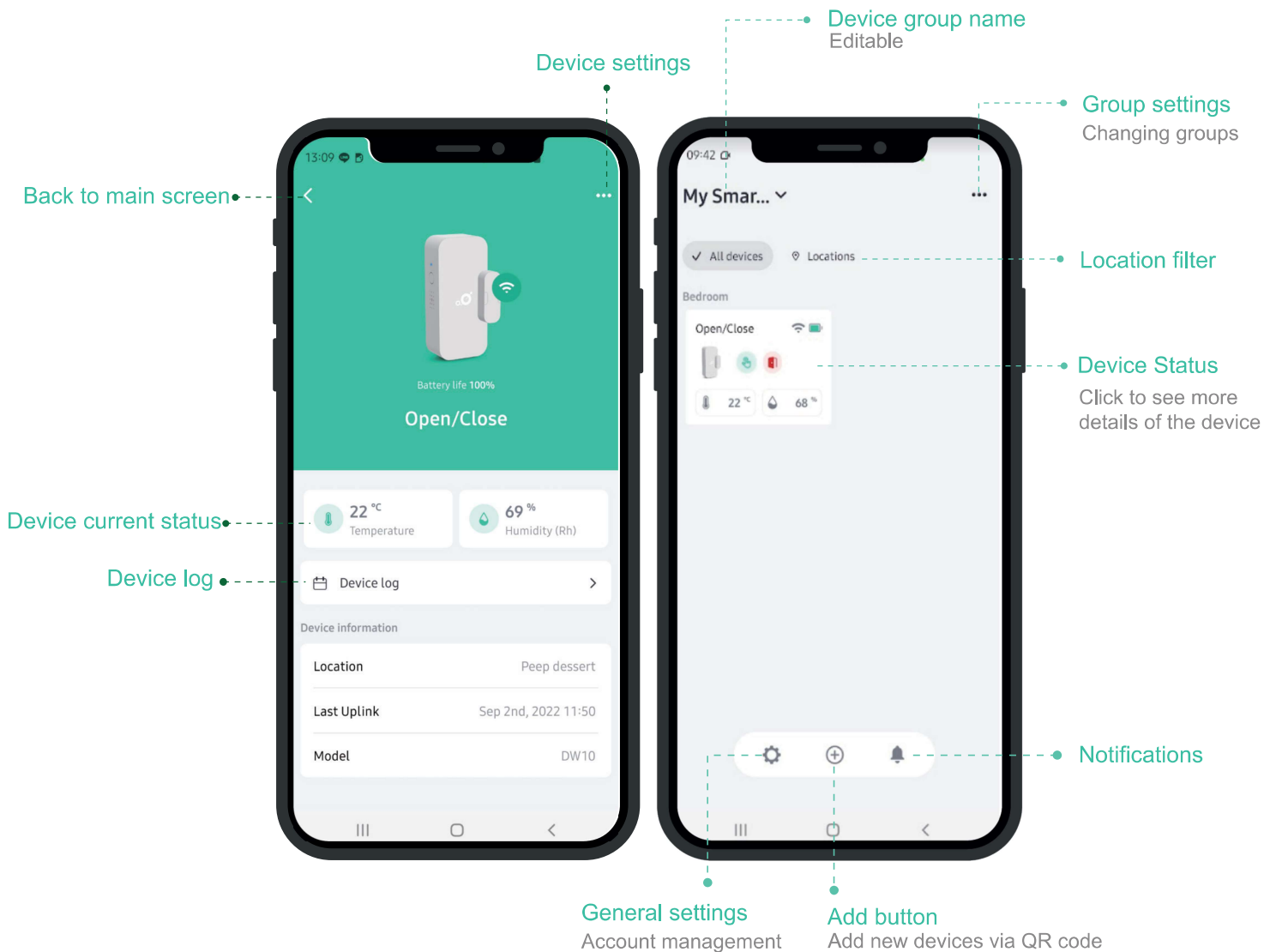
Button pressed
this icon will be displayed on your app dashboard when you press the device's test button, also the temperature and humidity will be updated at the same time.
- 

Motion detected
this icon will be displayed on your app dashboard immediately when the device detect a human motion, and the icon will disappear if there is no human detection in the last 5 minutes.
- 

Device is being tampered
this icon will be displayed on your app dashboard immediately when the device is been moved or tampered

Chapter 6 - APP Functions

MerryIoT Open/Close(DW10)



Icons

- Battery status
Sufficient / Low / Exhausted
- LoRaWAN Connection status
On/off

22°C Temperature (oC / oF)

50% Relative Humidity (%)

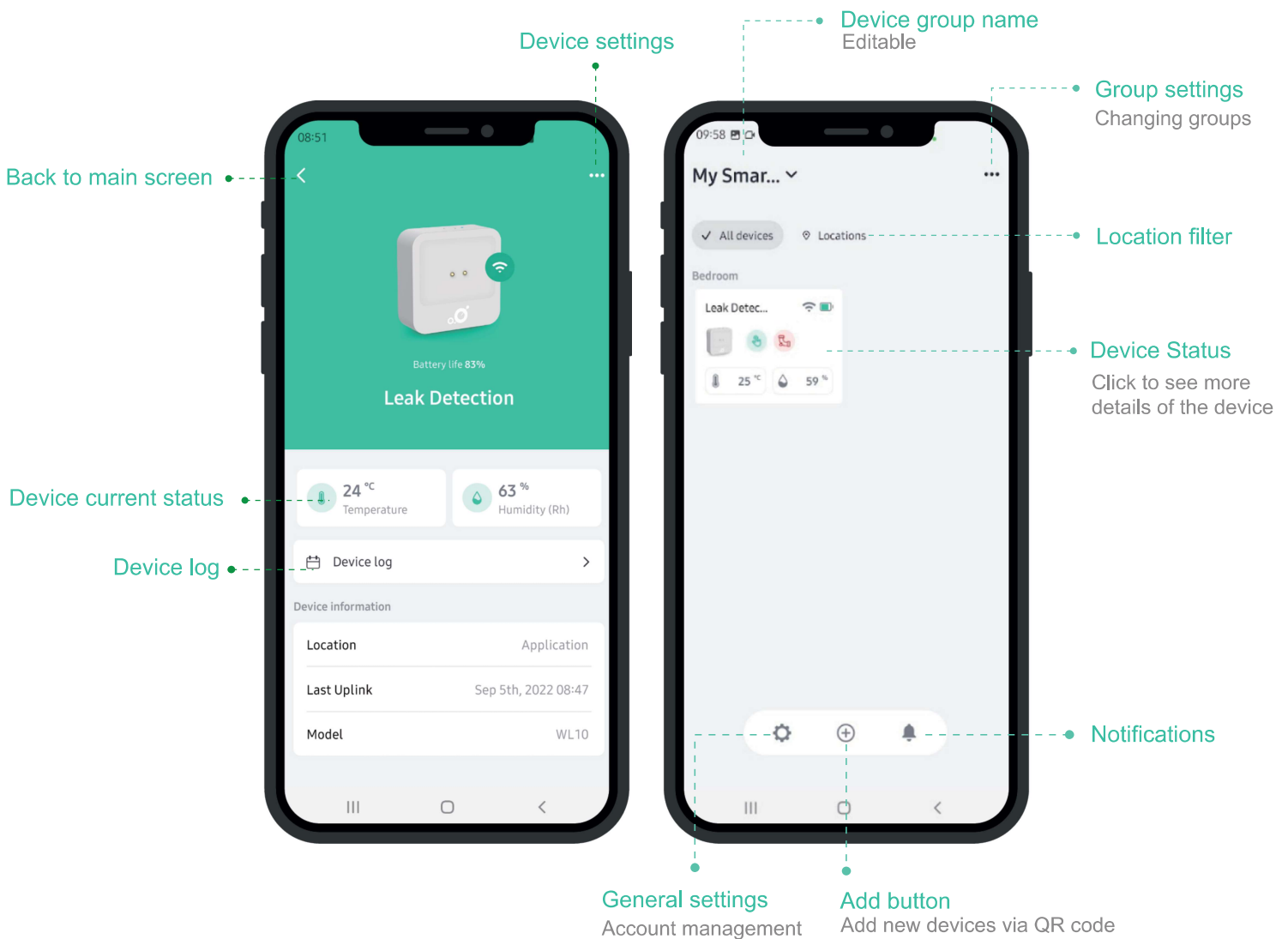
Both the icon of Temperature and Relative Humidity will be updated by 2 situations:
 1. Periodically every 1 hour
 2. Press the device's test button

Button pressed
 this icon will be displayed on your app dashboard when you press the device's test button, also the temperature and humidity will be updated at the same time.

Door or window status
 this icon will be updated every 6 hours, and when each door/window opens/closes.

Device is being tampered
 this icon will be displayed on your app dashboard immediately when the device is been moved or tampered.

MerryIoT Leak Detection(WL10)



Icons



Battery status
Sufficient / Low / Exhausted



LoRaWAN Connection status
On/off



Temperature (oC / oF)



Relative Humidity (%)

Both the icon of Temperature and Relative Humidity will be updated by 2 situations:
1. Periodically every 1 hour
2. Press the device's test button



Button pressed
this icon will be displayed on your app dashboard when you press the device's test button, also the temperature and humidity will be updated at the same time.



Water leak detected
this icon will be displayed on your app dashboard immediately when the device detect a leak/flooding event, and the icon will disappear when the water dry up.



Device is being tampered
this icon will be displayed on your app dashboard immediately when the device is been moved or tampered .

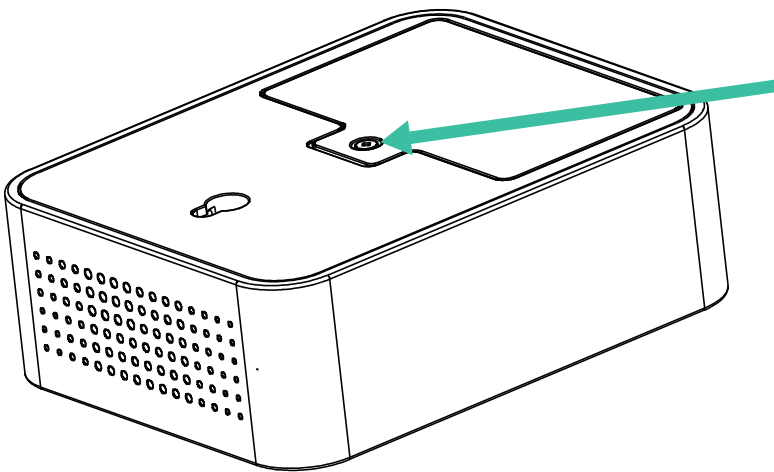
Chapter 7 - Battery Replacement

MerryloT Air Quality CO2(CD10)

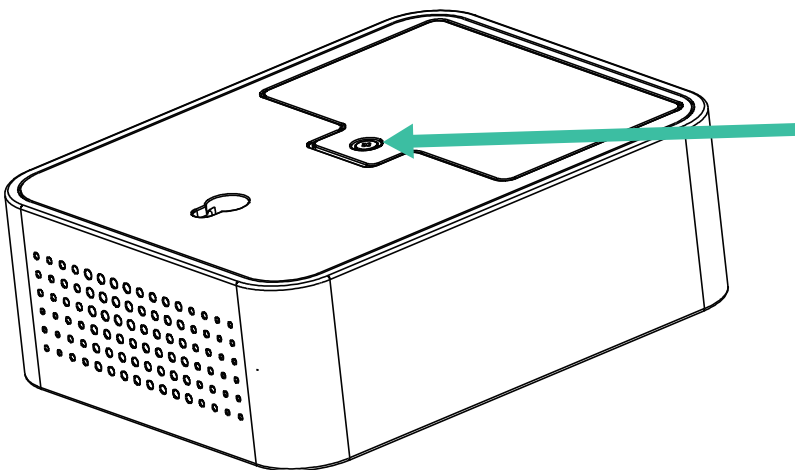
- 1 Tools: Cross-type screw driver x 1(PH0)



- 2 Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).



- 3 Replace the battery with new ones(Li-SiO₂ battery, "ER14505", AA size x 2 pcs).
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.



X2

ER14505*

Lithium-thionyl Chloride
(Li-SOCl₂) Battery, AA

- 3 Re-assemble the battery cover.

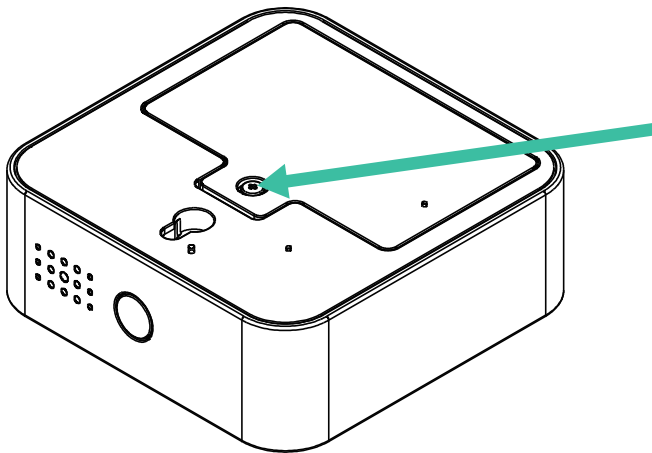
Chapter 7 - Battery Replacement

MerryIoT Motion Detection(MS10)

- 1 Tools: Cross-type screw driver x 1(PH0)

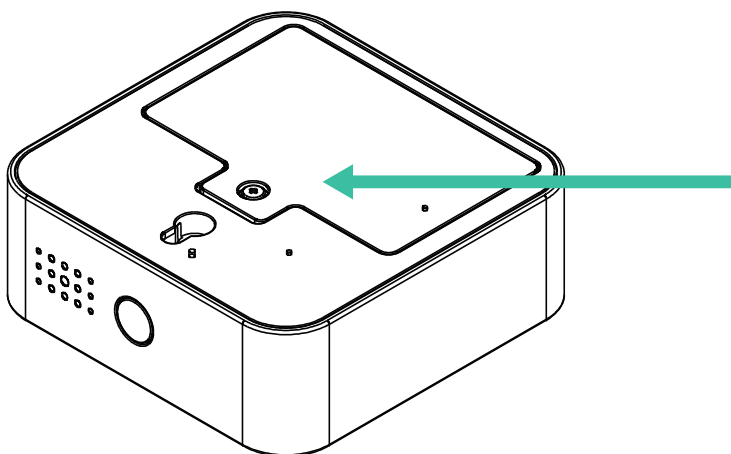


- 2 Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).



- 3 Replace the battery with new ones(Alkaline Battery, "LR6", AA size x 2 pcs).

*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.



X2

Alkaline AA

LR6 Alkaline battery, AA

- 3 Re-assemble the battery cover.

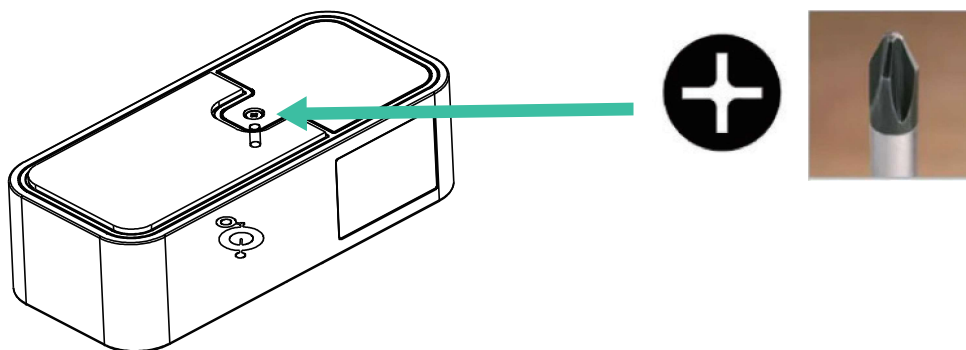
Chapter 7 - Battery Replacement

MerryloT Open/Close(DW10)

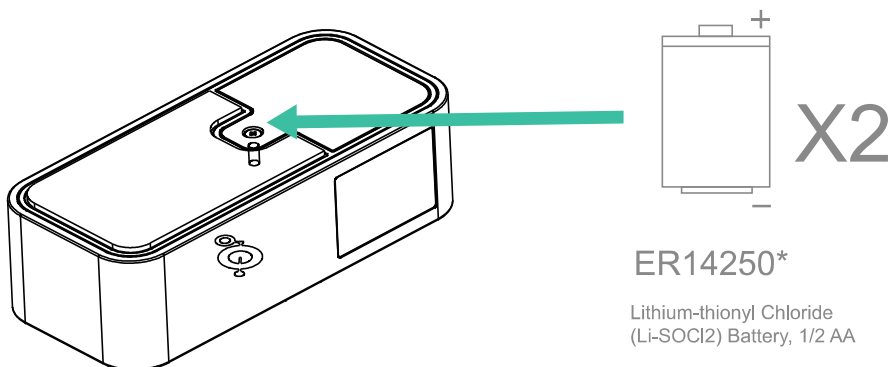
- 1 Tools: Cross-type screw driver x 1(PH0)



- 2 Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).



- 3 Replace the battery with new ones(Li-SiO₂ battery, "ER14250", 1/2 AA size x 2 pcs).
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.



- 3 Re-assemble the battery cover.

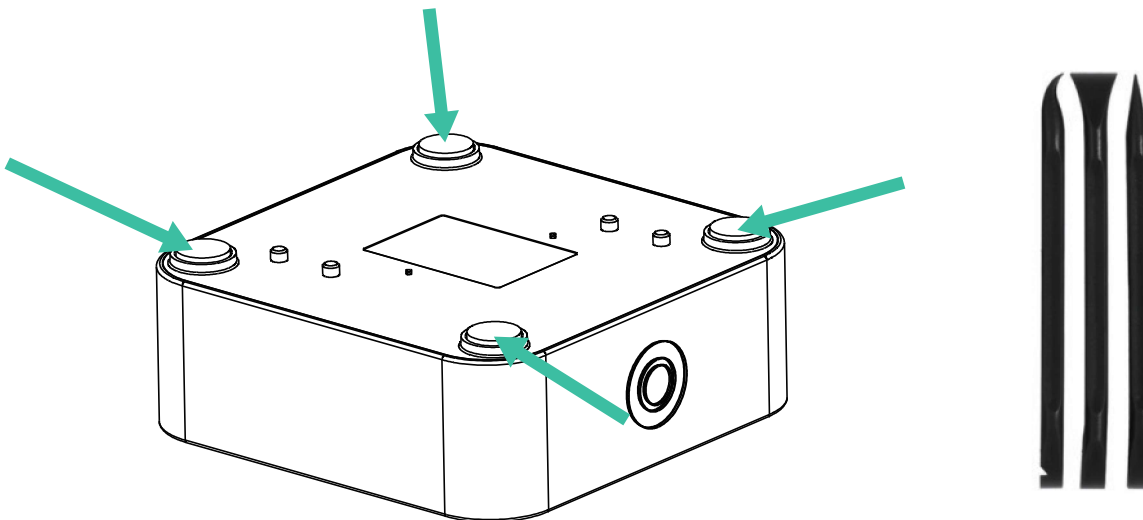
Chapter 7 - Battery Replacement

MerryloT Leak Detection(WL10)

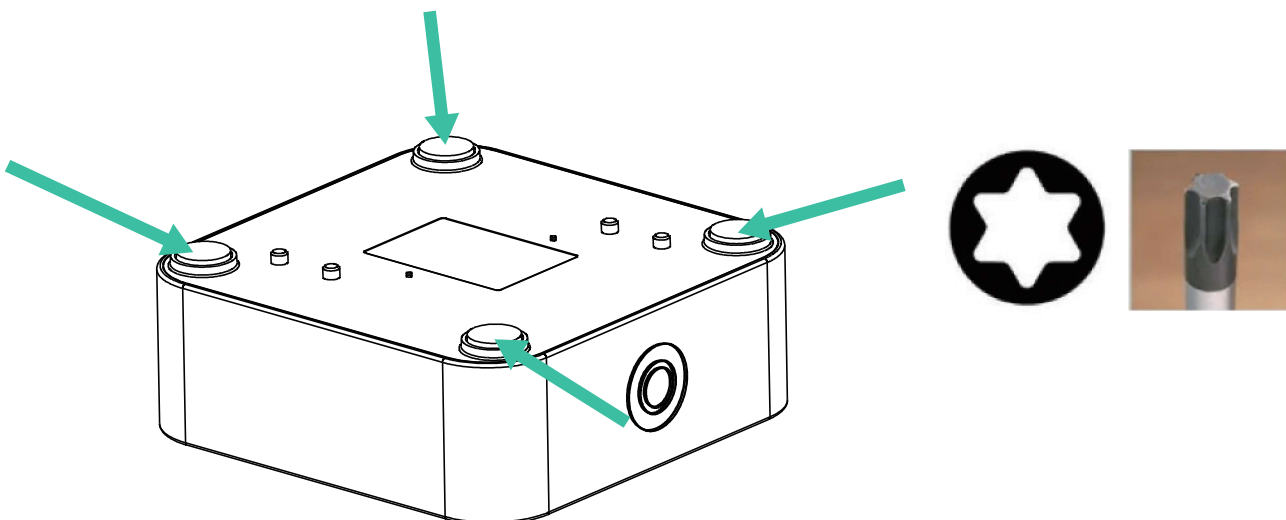
- 1 Tools: Cross-type screw driver x 1(PH1), Star-type screw driver x 1(T8H), Plastic disassembly stick(recommended).



- 2 Remove 4 rubber stands of the sensor with disassembly stick.



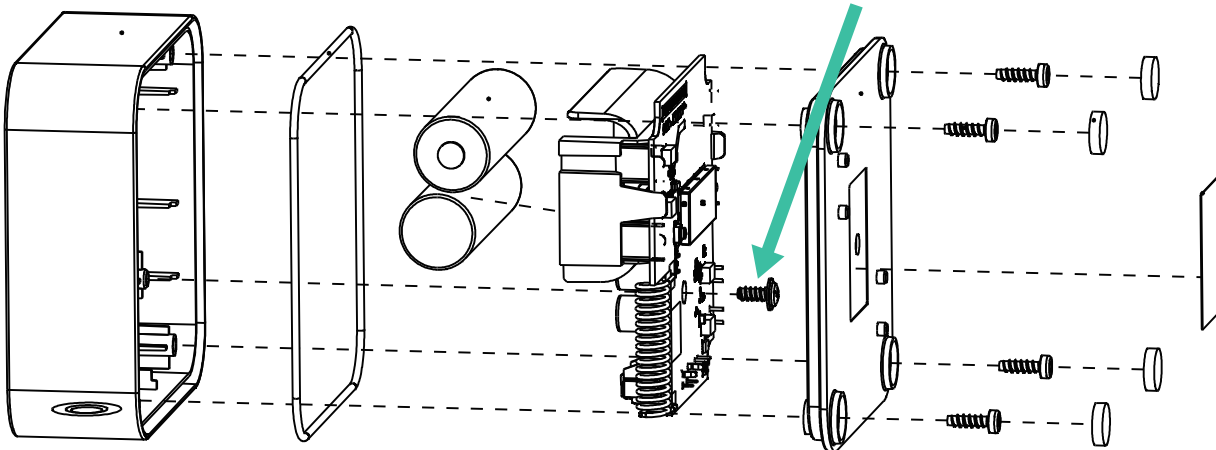
- 3 Remove the bottom cover of the sensor with a star-type screwdriver(T8H size).
*Caution: Removing the bottom cover may affect the water-tightness. Please get help from Browan team before you do so.



Chapter 7 - Battery Replacement

- 4 Remove the circuit board of the sensor with a cross-type screw driver x 1(PH1)

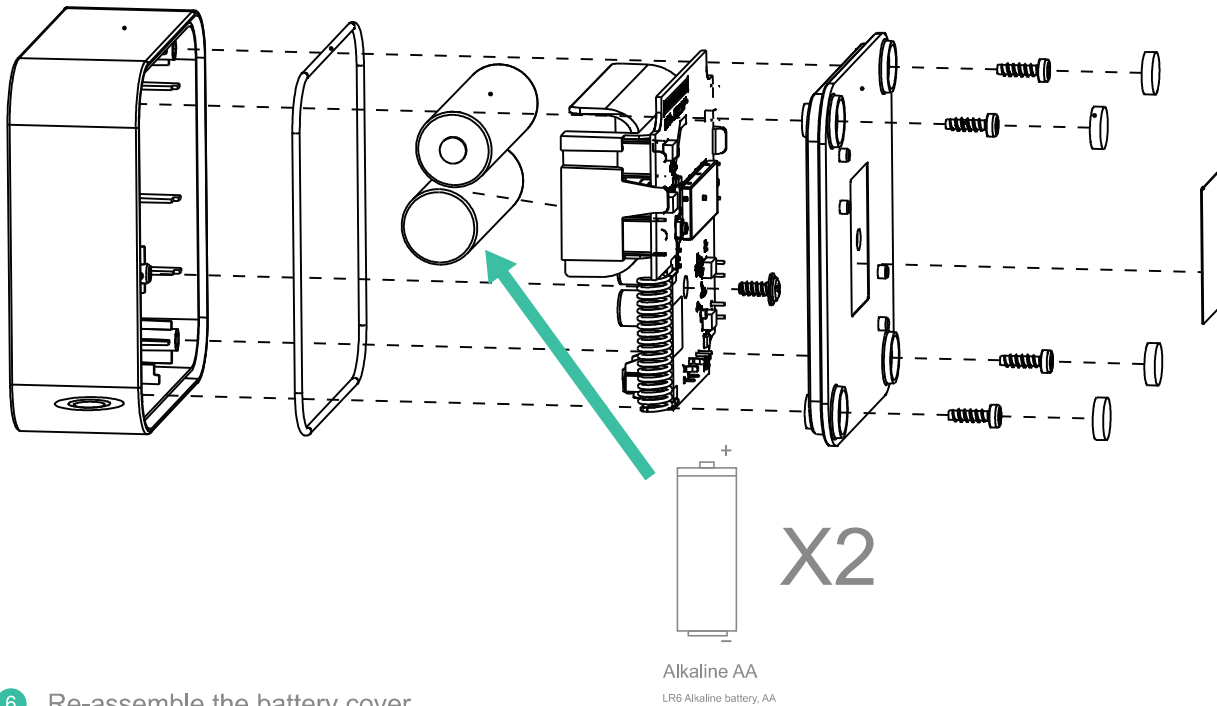
*Caution: Avoid touching the circuit board with bare hand. Touching boards can release static discharge. Please wear a plastic/rubber glove.



- 5 Replace the battery with new ones(Alkaline Battery,"LR6", AA x 2 pcs)

*Caution: DO NOT remove the battery holder.

*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.

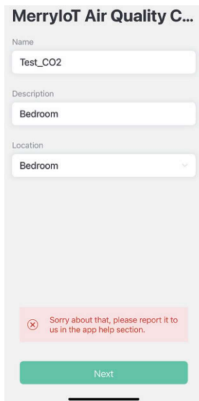


- 6 Re-assemble the battery cover.

Chapter 8 - FAQ

1.

Why do I get the error message "Sorry about that, please report it to us in the app help section" while binding the MerryloT sensor through the MerryloT sensor APP?



MerryloT Air Quality C...

Name
Test_CO2

Description
Bedroom

Location
Bedroom

Sorry about that, please report it to us in the app help section.

Next

Answer:

Since the MerryloT sensor APP is only for a specific batch number of MerryloT sensors, kindly check with your supplier whether the one you purchase is for using with the MerryloT sensor APP.

2.

How long will it take to get the CO2 value?

Answer:

It takes more than 20 minutes at least to get the CO2 value by manually activation, or 1 hour automatically.

3.

Why do I have to "sign in" via Google/Apple ID/Facebook twice?

Answer:

The first "sign in" is identified as a presign-up process in AWS Cognito which the MerryloT Sensor uses to manage third-party social media registration. Once the presign-up is complete, the mobile app page will redirect you to the "sign in" page again, then, you can sign in to the mobile app successfully.

For more FAQs please visit <https://www.merryiot.com/FAQ>

Chapter 9 - Copyright Notice

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