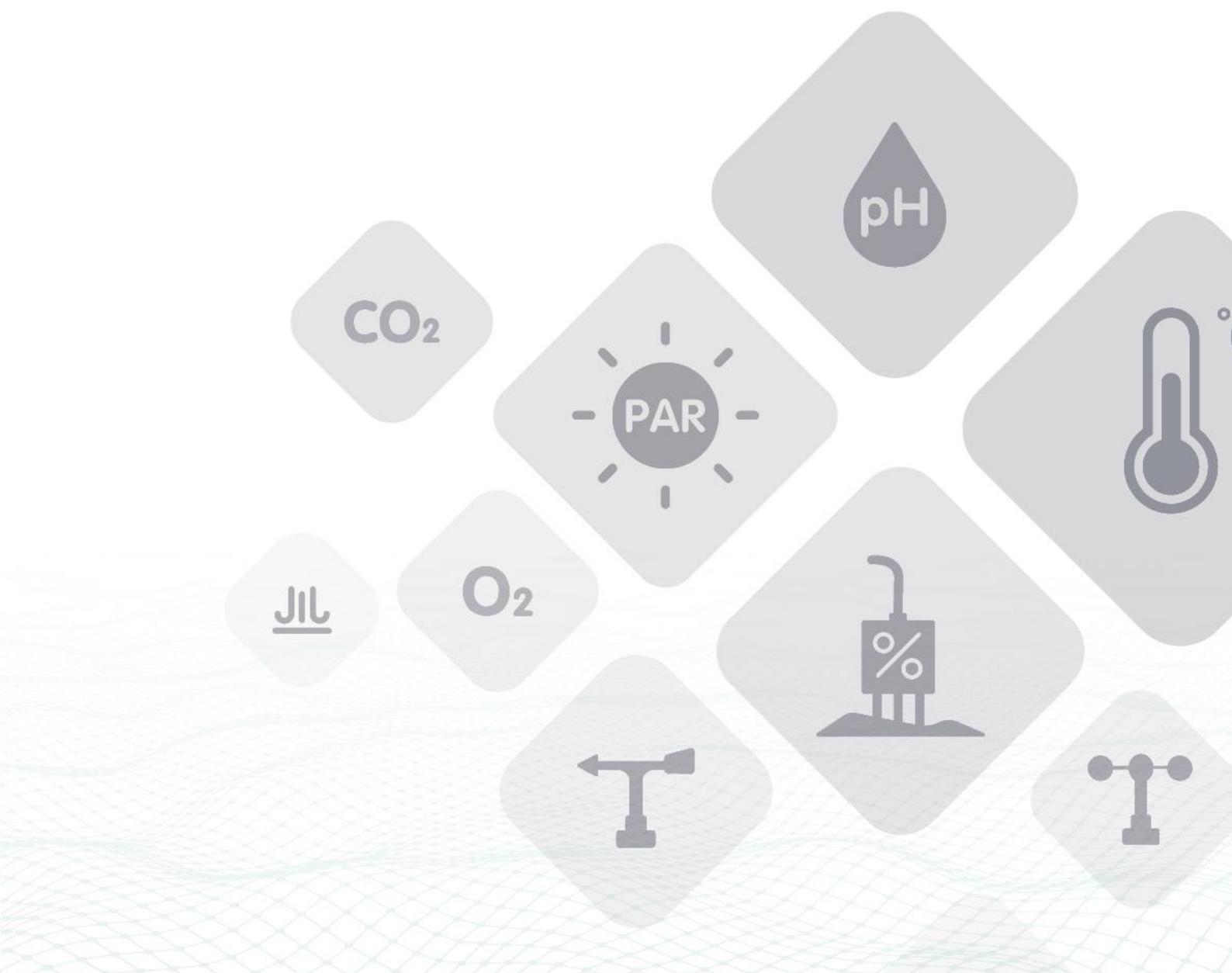




SENSECAP

SenseCAP Watcher

Version: V1.0



1. Introduction



SenseCAP Watcher is an AI watcher to help you monitor anomalies within a space and then take actions. Simply speak to Watcher to give commands, and it will execute your desired tasks when the event occurs.

As a new comer for smart building / smart home system, SenseCAP Watcher is far more intelligent compared to current sensors and actuators. It understands what is happening within the space and then takes actions accordingly.

Features

- High efficiency architecture with on-device + server AI processing
- Extensive with Infinite Modal
- Ensuring Privacy with Open Source and On-Premise Deployment
- Customizable Emotional Responses

2. Specification

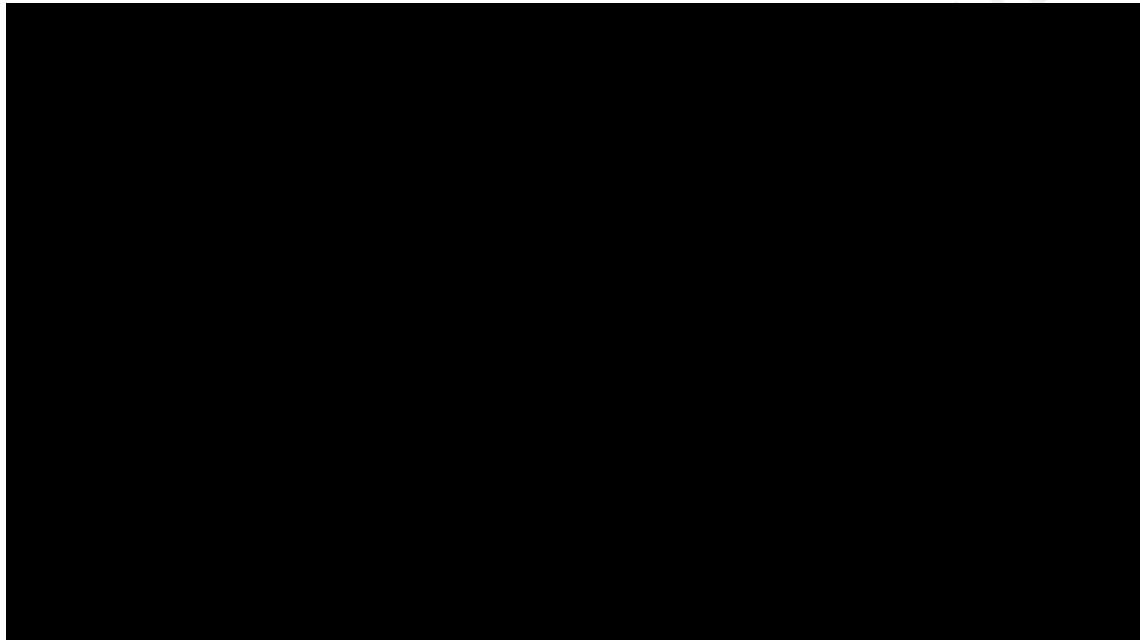
MCU	ESP32-S3 @240MHz 8MB PSRAM
Built-in AI Processor	Himax HX6538(Cortex M55 + Ethos-U55)
Camera	OV5647 120° FOV Fixed Focal 3 meters
Wi-Fi	IEEE 802.11b/g/n-compliant; 2.4GHz Band; Wireless Range: Up to 100 meters (open space test);
Bluetooth LE	Bluetooth 5
Antenna	Built-in Wi-Fi and BLE antenna
Display	Touchscreen with 1.45-inch, 412×412 resolution
Microphone	Single microphone
Speaker	1W speaker output
Wheel	Supports scrolling up&down and button
LED	1xRGB light for indication
microSD Card Slot	Supports up to 32GB FAT32 microSD card
Flash	32MB Flash for ESP32-S3; 16MB Flash for Himax HX6538;
Extension Interface	1xGrove IIC interface, 2x4 Female header(1xIIC, 2xGPIO, 2xGND, 1x3.3V_OUT, 1x5V_IN)
USB-C	1x USB-C on the back(power supply only) 1x USB-C on the bottom(power supply and programming)
Reset Button	1xRST button in the bottom hole
Power Supply	5V DC power
Battery	3.7V 400mAh Li-ion battery as backup power
Operating Temperature	0 ~ 45°C
Mounting Bracket	Supports wall, desktop and bracket installation 1 x Universal wheel and base plate with adhesive ; 1 x 1/4" Female adapter set

3. Operation Guidelines

This section of the Wiki provides a comprehensive guide on how to power on the Watcher, navigate through its menu pages, and understand its operational logic. By following these instructions, you will be able to effectively utilize the Watcher's features and functionalities.

Power On

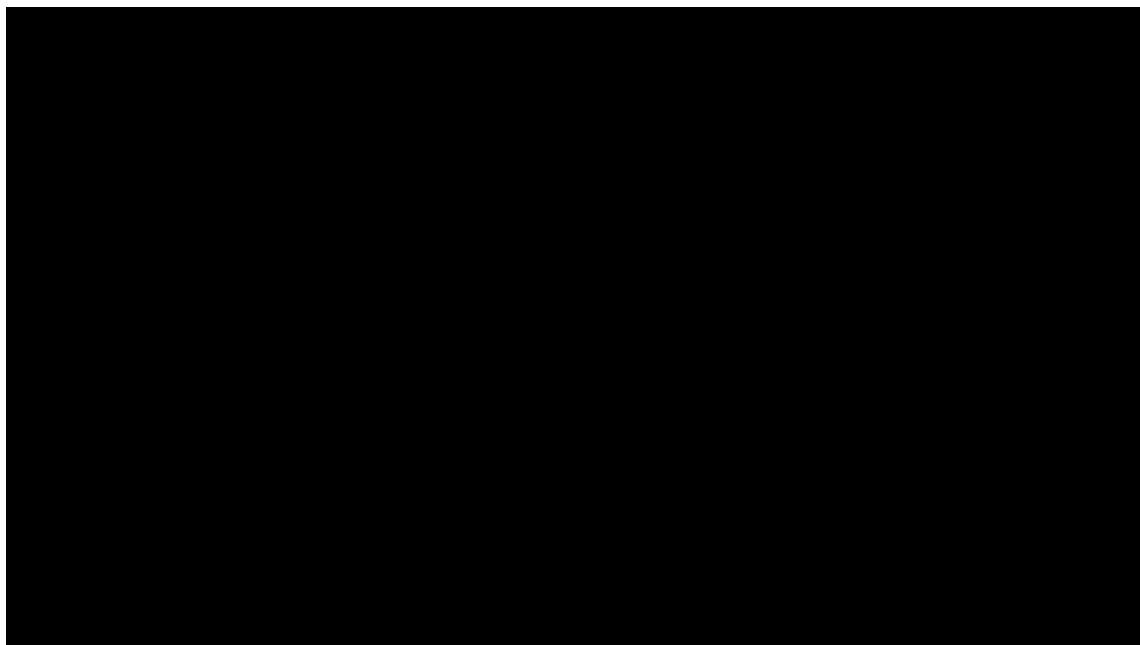
To power on your Watcher device, press and hold the wheel button located on the upper right corner for approximately 3 seconds until the Seeed Studio logo appears on the screen.



Once the logo is displayed, release the button and allow the device to complete its initialization process. After a few moments, the Watcher will display its main menu, indicating that it is ready for use. If the device won't turn on with a long press, the device may be low on power and you may need to connect a cable to power it up before you can wake up the Watcher.

Power Off

To power off the Watcher, you need to access the Setting menu. Using the wheel button, navigate to the Setting option and press the button to enter the menu. Once inside, scroll down to the Shutdown option and press the wheel button to select it. Finally, swipe the slider from left to right to confirm the shutdown process, and the Watcher will power off.



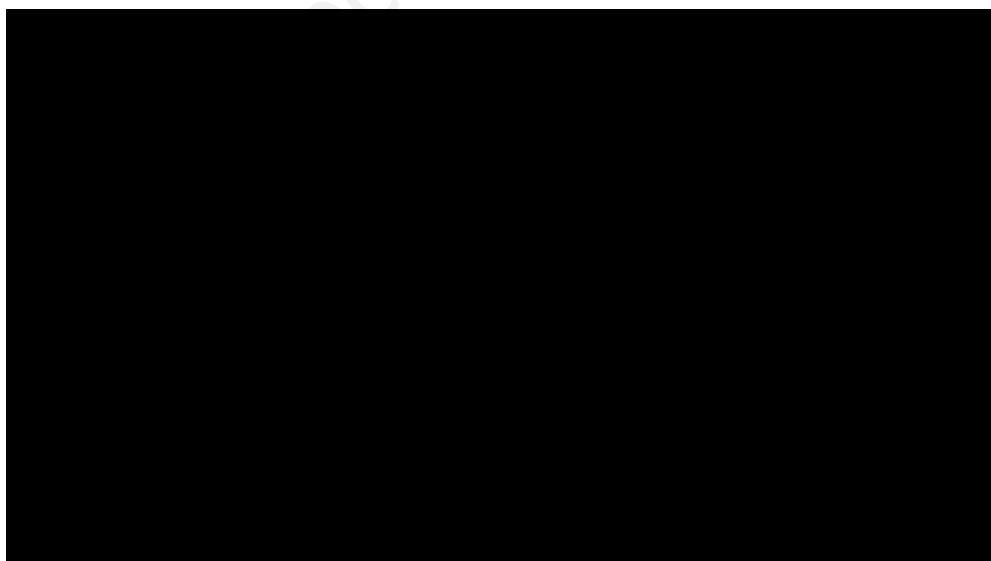
Hardware Reset

Hardware Reset Button on Watcher

At the bottom of your Watcher device, you will find a small hole. This hole provides access to the hardware reset button, which allows you to reset the device if needed.

To perform a hardware reset, follow these steps:

- 1 Locate a thin, pointed object, such as a paperclip or a small needle.
- 2 Carefully insert the pointed object into the small hole at the bottom of your Watcher.
- 3 Gently press and hold the reset button inside the hole for a few seconds.
- 4 Release the button and wait for the Watcher to restart.



Device Binding and OTA Upgrade

After powering on your Watcher, if it has not been previously bound to a device, it will prompt you to connect to the SenseCraft app. Alternatively, you can find the "Connect to APP" option in the Settings menu. The Watcher will then display a QR code to download the SenseCraft app.

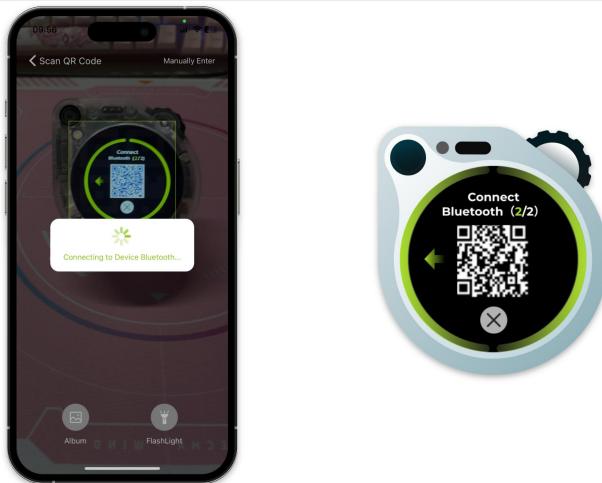
You can either scan the QR code or use the provided link to download the app.

To proceed with binding your Watcher to the SenseCraft app, follow these steps:

Step 1. On your Watcher, rotate the wheel button clockwise to enter the QR code interface for binding the device.



Step 2. Open the SenseCraft app on your mobile device and tap the plus sign (+) in the top right corner to add your Watcher by scanning the QR code.

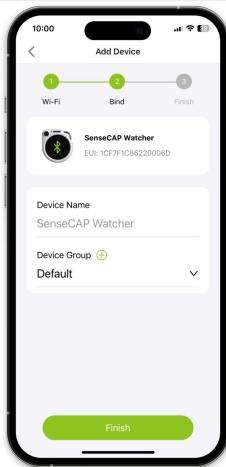


Step 3. After successfully scanning the QR code, the app will navigate to the network configuration page. Select a 2.4GHz Wi-Fi network to connect your Watcher to the internet.

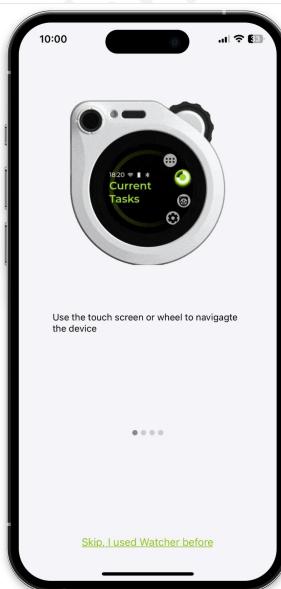


Tap the "Next" button to proceed.

Step 4. Choose a name for your Watcher and select an appropriate group for it.



Step 5. The SenseCraft app will display a tutorial page, providing guidance on how to use your Watcher. Take a moment to familiarize yourself with the instructions.



Once the setup is complete, the app will open a chat window to communicate with your Watcher, while the

Watcher will return to its main menu.

With the binding process finished, your Watcher is now connected to the SenseCraft app, and you can start exploring its features and capabilities. The app serves as a convenient way to interact with your Watcher, adjust settings, and receive notifications remotely.

Setting

This guide will walk you through the various settings options available on your Watcher device and explain their functions.

Connect App:

- The Connect App setting allows you to establish a connection between your Watcher and a companion mobile application.
- By connecting your Watcher to the app, you can access additional features, remote control capabilities, and receive notifications on your mobile device.

Wi-Fi:

- The Wi-Fi setting on the Watcher device displays information about the currently connected wireless network.
- If no network has been configured, the Wi-Fi setting will not display any information.
- Please note that configuring Wi-Fi networks can only be done through the companion mobile app and is not supported on the Watcher device itself.

Bluetooth:

The Bluetooth setting allows you to toggle the Bluetooth functionality on or off.

Sound:

- The Sound setting lets you adjust the volume of your Watcher's audio output.
- You can increase or decrease the volume to suit your preferences or environment.

Brightness:

- The Brightness setting allows you to control the brightness level of your Watcher's display.
- Adjusting the brightness can help improve visibility in different lighting conditions and conserve battery life.

RGB Light:

The RGB Light setting is a toggle switch that allows you to turn the LED indicator light on or off.

About Device:

- The About Device section provides important information about your Watcher, such as the model number, firmware version, and serial number.
- This information can be helpful when troubleshooting issues or checking for available updates.

Shutdown/Reboot:

- The Shutdown/Reboot setting allows you to restart or power off your Watcher device, depending on the power source.
- When the Watcher is connected to a power source, the "Reboot" option will be displayed, allowing you to restart the device. Shutting down is not allowed while connected to power.
- When the Watcher is running on battery power, the "Shutdown" option will be available, enabling you to power off the device.

Factory Reset:

- The Factory Reset option restores your Watcher to its original factory settings.
- This action will erase all user data, preferences, and configurations, returning the device to its default state.
- Use this option with caution, as it cannot be undone, and you will need to set up your Watcher again after a factory reset.

By familiarizing yourself with these settings options, you can customize and optimize your Watcher experience to best suit your needs. Keep in mind that certain settings, such as Wi-Fi and Bluetooth configuration, can only be accessed and modified through the companion mobile app.

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: 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 try to correct the interference by one or more 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 that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.