
Web Configuration Manual

IoT Buddy

Senva Sensors
1825 NW 167th Place
Beaverton, OR 97006

154-xxxx-xx

Rev.	Release Date	By	Description of Change	ECR
0A			Initial Release	---

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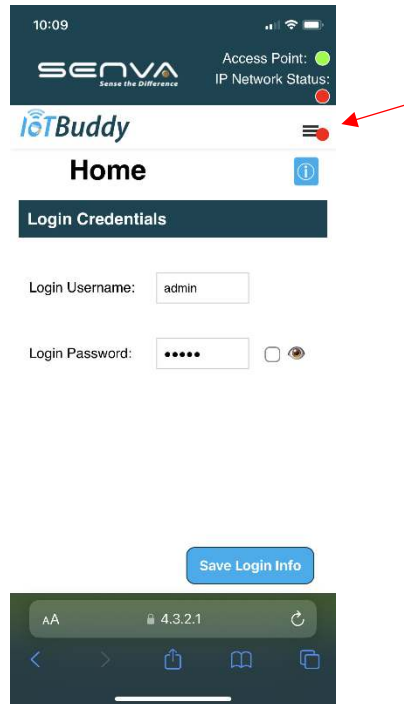
Wi-Fi Connection

Follow installation instructions to wire IoTBuddy to desired Modbus or analog device.

Once powered, IoTBuddy will host an access point for 5 minutes. To re-enable the access point, press the button on the IoTBuddy.

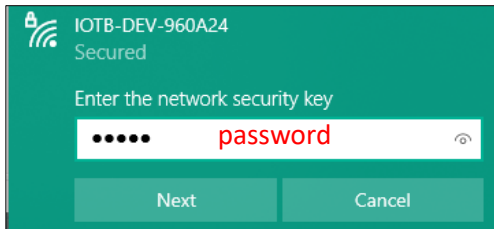
QR Code Connection

1. Scan the QR code on the label of the IoTBuddy device. Join the network.
2. Open a browser; go to <https://4.3.2.1>
3. A non-private connection status may appear, please approve and “visit website”
 - a. You may need to hit “refresh” after clicking the “visit website” link.
4. Log in using the default credentials:
 - username: admin
 - password: admin
5. Navigate using the 3-line “hamburger” menu on the top right. See following sections for explanation of each setup screen.

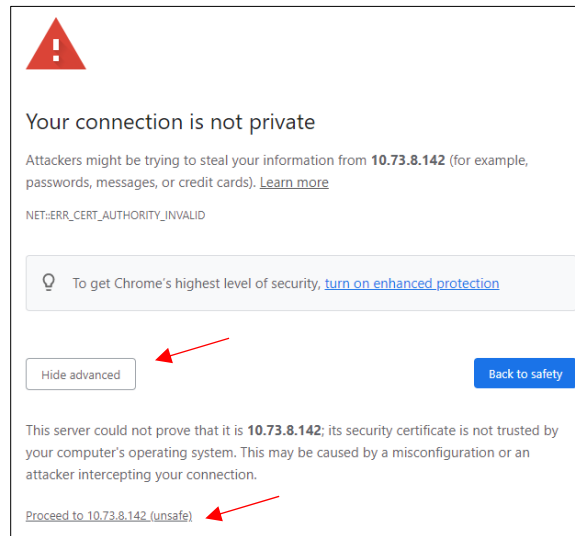


Manual Connection

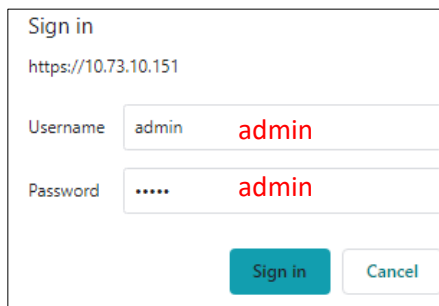
1. Open your Wi-Fi network page and find the IOTB that matches the serial number printed on your IoTBuddy label.
2. Enter the network security key: password



3. Go to <https://4.3.2.1>
4. Your browser may indicate a non-private connection. Find the “proceed” button near the bottom of the warnings; you may need to click the subtle link labeled “advanced” or “show more” first.



5. Log in using the default credentials:
 - username: admin
 - password: admin



6. You may change your username and password on the first screen. Once you click “save,” you will be logged out and prompted to log in again with the new credentials.

Network Configuration

1. Enter the credentials for the existing Wi-Fi network you wish to connect to the IoT Buddy.
2. You may change your access point password on this page, if desired. If you chose a static IP assignment, please enter it in the “security and addressing” section.

3. When you hit “save changes & connect” button, you will need to disconnect and reconnect to the access point IOTB-xxxxxx. Click the “reload” button on your web browser.
4. **For Static**, enter your assigned IP address into your browser. You will be prompted with another non-private connection, please proceed. Log in again using your new login credentials.

For DHCP, navigate to the network tab and copy your new IP address. Paste the new IP address into your browser. You will be prompted with another non-private connection; please proceed. Log in again using your new login credentials.

The screenshot shows the IoT Buddy web interface. On the left is a navigation menu with the following items: Home, Network (highlighted), Remote Output Connection, Locally-Connected Device, and IoT Message Configuration. The main content area is titled "Network" and has a sub-header "Wi-Fi Station". Below this, the "Network Status" is shown as "Connected" with a green dot, indicating it is available at the IP address <https://10.73.9.143> on the "SENV" network. A blue "Copy IP" button is positioned to the right of the IP address, with a red arrow pointing to it. Below the status, the "Wifi Station SSID" is set to "SENV" in a text input field. The "Wifi Station Password" is masked with dots in another text input field, which includes a toggle icon for visibility.

5. You may now connect to your designated Wi-Fi network.

Ethernet or Power over Ethernet Connection

Follow installation instructions to wire IoT Buddy to desired Modbus or analog device.

1. **For static IP addressing**, connect RJ45 Ethernet plug to the IoT Buddy and directly to your computer. Press the button on the IoT Buddy once. Using a web browser, go to <https://3.2.1.1>; it may take a few seconds before this address is accessible. You may then set up your desired static IP address using the web interface (see step 5).

Note: If a static IP address has already been assigned, the above process will not work.

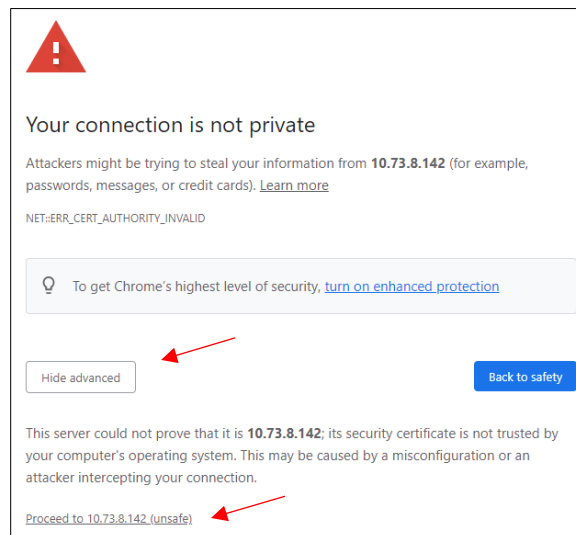
The designated IP address can be easily retrieved [Senva Sync app](#).

For DHCP, connect RJ45 Ethernet plug to IoT Buddy and to your network. Determine your automatically assigned IP address and enter it into your web browser using “https://”.

Note: The assigned IP address can be easily retrieved [Senva Sync app](#).

Your browser may indicate a non-private connection. Click “Advanced” and then “Proceed to xx.xx.x.xxx (unsafe).” Once signed in, you will be able to update security settings to enhance privacy.

2. Your browser may indicate a non-private connection. Click “Advanced” and then “Proceed to xx.xx.x.xxx (unsafe).”



3. Log in using the default credentials:

- username: admin
- password: admin

Sign in

https://10.73.10.151

Username: admin

Password: admin

4. You may change your username and password on the first screen. Once you click “save” you will be logged out and prompted to log in again with the new credentials.
5. **For static IP addressing**, navigate to the “network” tab. Select “static” address assignment and enter the rest of your credentials in the associated boxes. Once you click “Save Changes and Connect” you will be logged out and prompted to log in again, with the new IP address and credentials.

Note: The ethernet connection or the power to the IOTBuddy will need to be disconnected then reconnected for the new address to take effect.

iOTBuddy

Home

Network

Remote Output Connection

Locally-Connected Device

IoT Message Configuration

Advanced

System Info

Error Log

Network

Security & Addressing

Address Assignment:

IPv4 Address:

DNS Preferred:

Static Gateway:

Static Netmask:

6. Once connected, you will see the “network status” icon at the top of the page turn green.



Cloud Service Setup (Remote Output Connection)

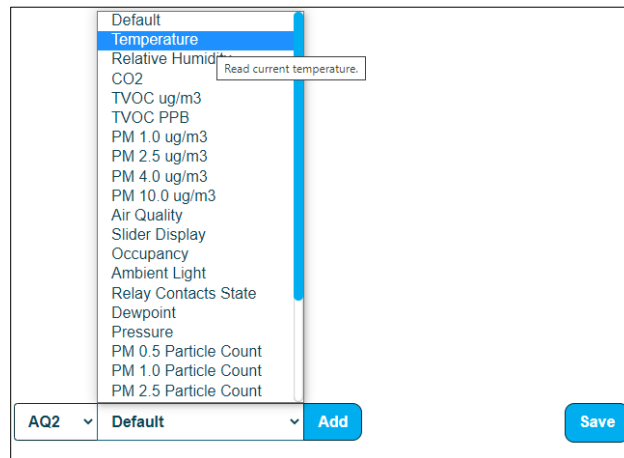
1. Choose your MQTT protocol from AWS IoT Core over MQTT, Azure IoT Hub over MQTT, or plain MQTT. Enter your cloud service or broker information.
2. Enter client certificates in the Security section if applicable.

3. When you hit “save changes and connect,” you should see the IOT Connection Status icon at the top turn green.

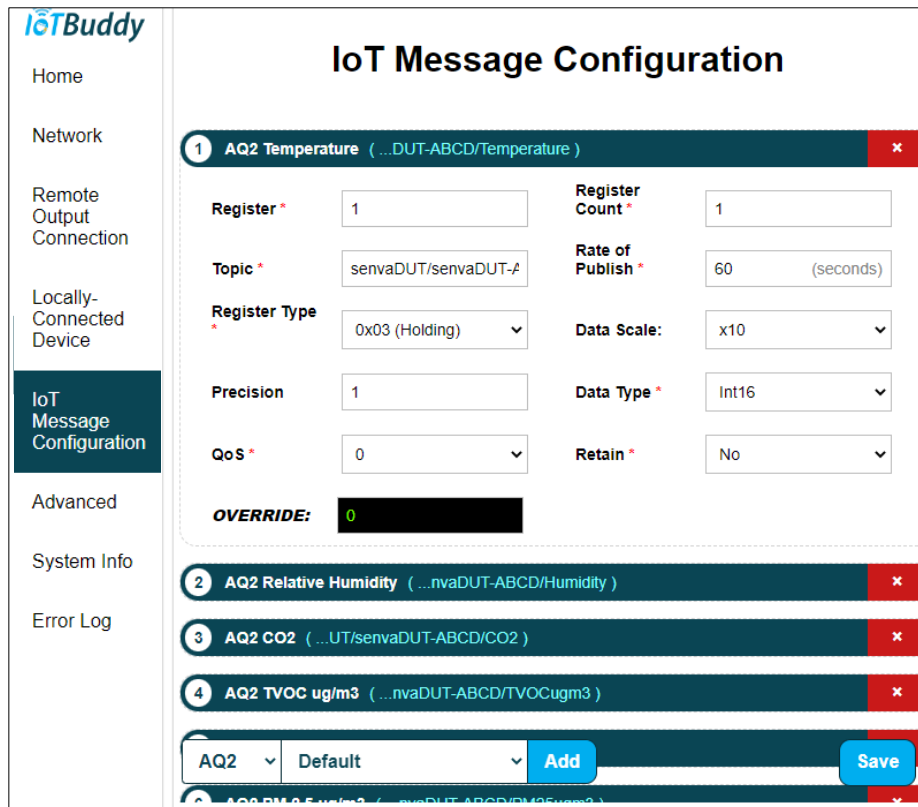
Datapoint Settings

Modbus Settings (Locally-Connected Device)

1. Navigate to the “Locally-Connected Device” tab and enter Modbus settings to match the settings on the device you wish to monitor.
2. Navigate to “IoT Message Configuration” tab. You may choose one of the pre-configured Senva devices from the dropdown or choose “basic” to manually enter the points you wish to monitor. Select the pre-configured points you wish to monitor or add basic points manually.



3. Adjust the settings for each point you wish to monitor. The right sidebar provides a detailed description of each field as it is selected.



Analog Settings

1. Navigate to the “Locally-Connected Device” tab and enter the voltage or current range of the analog signal to be monitored on the two channels. Channel A should correspond to your IoT Buddy’s blue wire and Channel B should be grey.
2. Navigate to the “IoT Message Configuration” tab. You may choose one of the pre-configured Senva devices from the dropdown or choose “basic” to manually enter the points you wish to monitor. Make sure to assign readings to either Channel A or Channel B.

The screenshot displays the IoT Buddy web interface for IoT Message Configuration. The left sidebar contains navigation options: Home, Network, Remote Output Connection, Locally-Connected Device (highlighted), IoT Message Configuration (active), Advanced, System Info, and Error Log. The main content area is titled 'IoT Message Configuration' and shows two configuration tabs. The first tab, '1 Custom (...DUT/senvaDUT-ABCD/CO)', has the following settings: Channel A, Reading Min 0, Reading Max 200, Precision 0, QoS 0, Topic senvaDUT/senvaDUT-A, Rate of Publish 3600 (seconds), and Retain No. The second tab, '2 Custom (...UT/senvaDUT-ABCD/NO2)', has: Channel B, Reading Min 0, Reading Max 10, Precision 0, QoS 0, Topic senvaDUT/senvaDUT-A, Rate of Publish 3600 (seconds), and Retain No. At the bottom, there are dropdowns for 'Basic' and 'Default', an 'Add' button, and a 'Save' button.

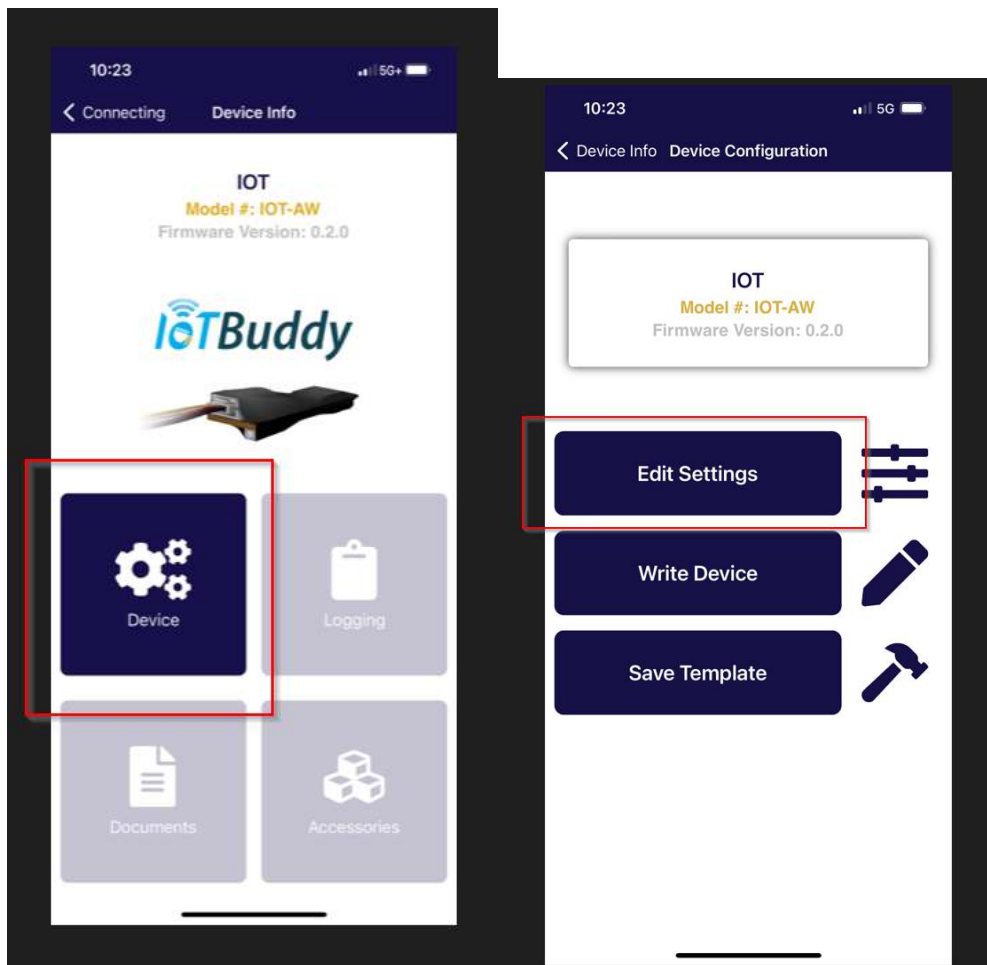
App Provisioning

Setup

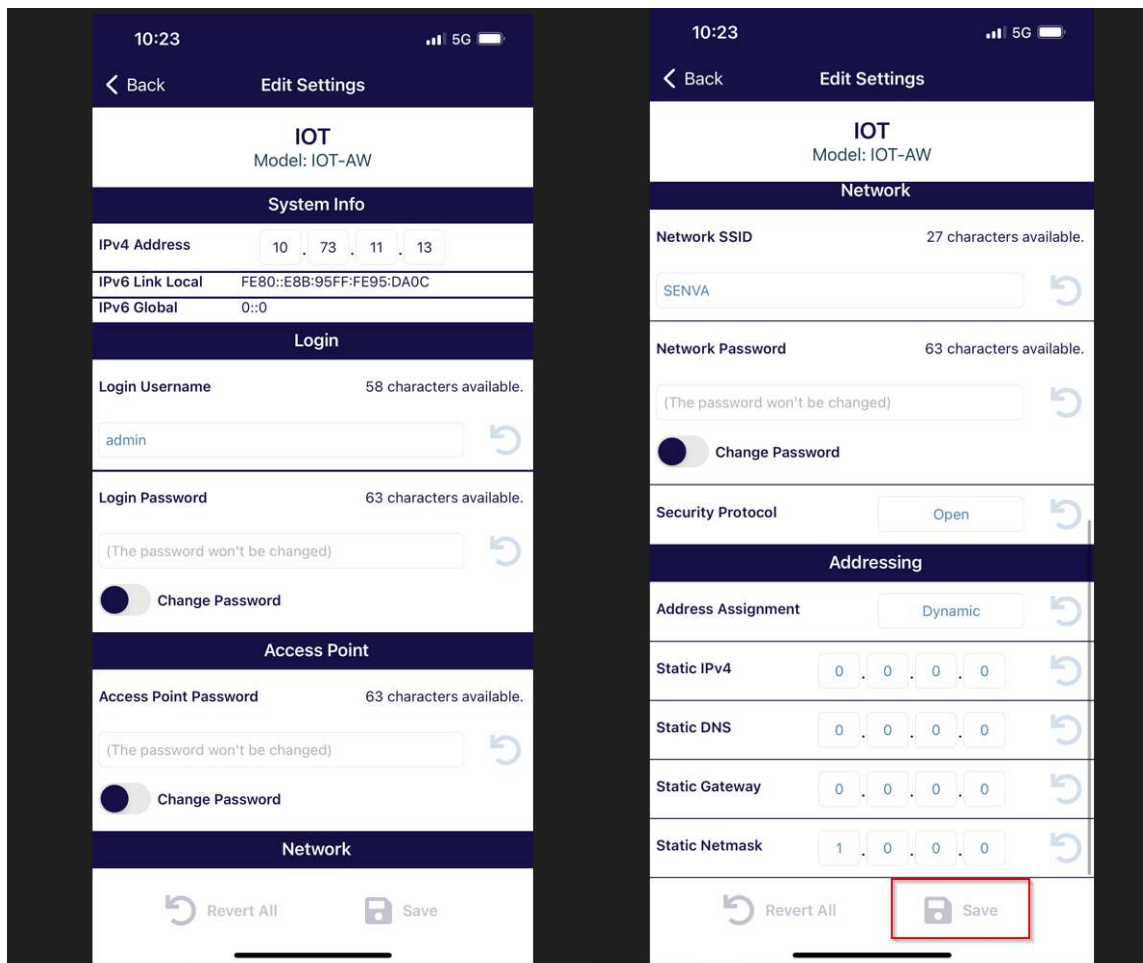
1. Open the Senva Sync app available on the [Google Play Store](#) for Android or the [Apple App Store](#) for iOS.
2. Tap ‘Scan Device’ and place your phone’s NFC adapter over IoT Buddy until a successful connection occurs and a green checkmark is displayed.



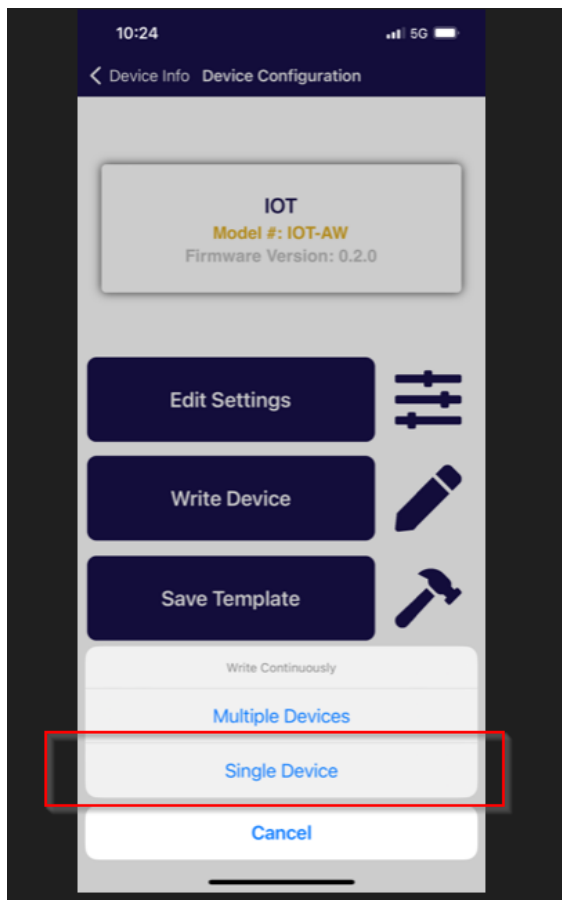
3. Tap 'Device', then tap 'Edit Settings'.



4. Update available settings as needed.
 - a. For WIFI devices, available settings are:
 - i. Currently assigned IP addresses
 - ii. Login credentials for the web interface
 - iii. The Access Point password
 - iv. WIFI Network settings
 - v. Addressing method and static IP assignment
 - b. For ethernet and POE devices, available settings are:
 - i. Currently assigned IP addresses
 - ii. Login credentials for the web interface
 - iii. Addressing method and static IP assignment



5. After changing the settings as needed, tap 'Save'. When prompted to write a device, tap 'yes', then tap 'single device'.



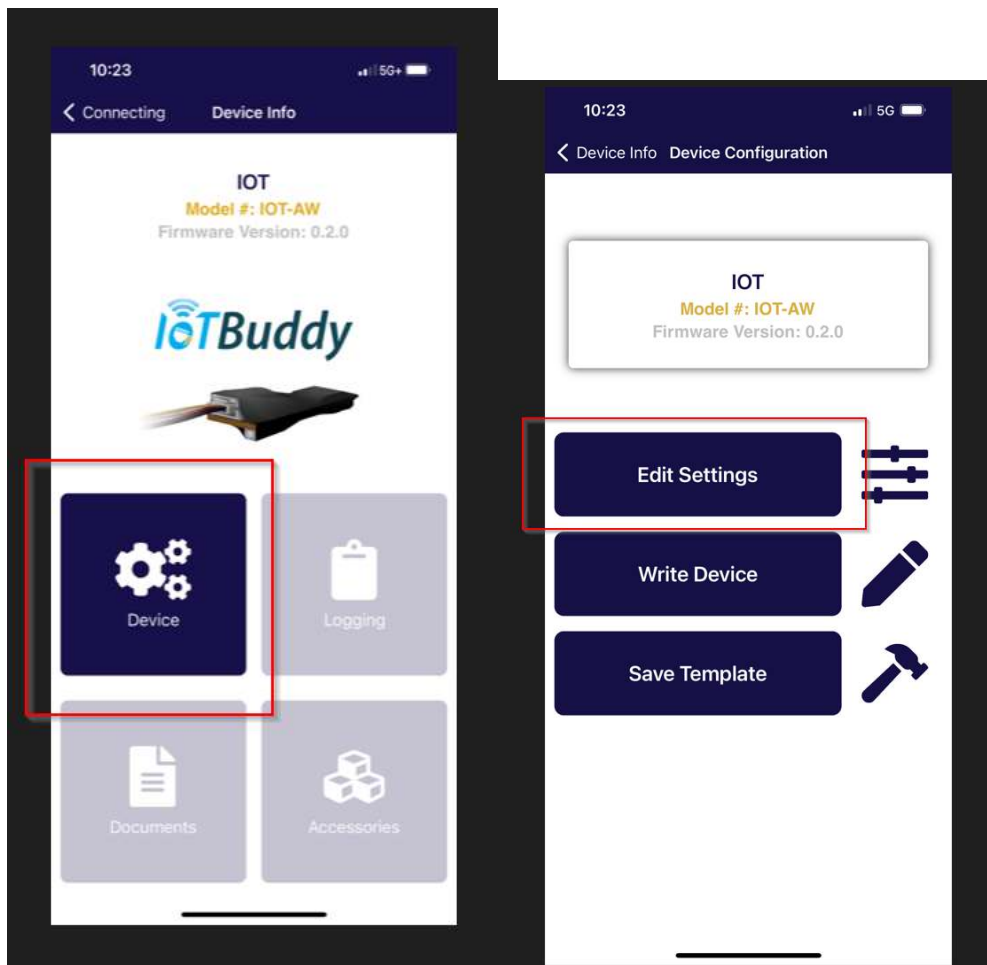
6. Place your phone's NFC adapter over IoT Buddy to write out the new settings until a successful connection occurs and a green checkmark is displayed.

IP Address Retrieval

7. Wait at least 5 seconds for IoT Buddy to reboot after a write, then from the app's home page, tap 'Scan device'. Place your phone's NFC adapter over IoT Buddy until a successful connection occurs and a green checkmark is displayed.



8. Tap 'Device', then tap 'Edit Settings'.



9. The currently assigned IP addresses will be displayed at the top under 'System Info'.

