



# OPERATION MANUAL FOR AIRVEDA MONITOR WITH ANDROID

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## TECHNICAL MANUAL

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## Overview

This manual walks through the steps required to set up your Airveda monitor with Wi-Fi so that it can send data to the server which can be viewed on your app.

- One monitor can be configured with **up-to 5 Wi-Fi credentials** and will automatically switch between these Wi-Fi's as and when it is able to connect with them.
- You can **configure as many phones** with a particular Airveda Monitor, allowing everyone in your family to view data from your monitor in their apps.

**Note:** You must **configure the monitor at least once** via the full configuration process to add Wi-Fi SSID and PASSWORD details so that the monitor can communicate with the server. However you can add the device to any app by simply going to the settings on the homepage and adding by monitor ID via the “Add monitor by ID” option.

## Wi-Fi Configuration Steps

### Step 1: Download the Airveda App

Download and install the mobile app named '**Airveda**' from Apple App store or Google Play store.



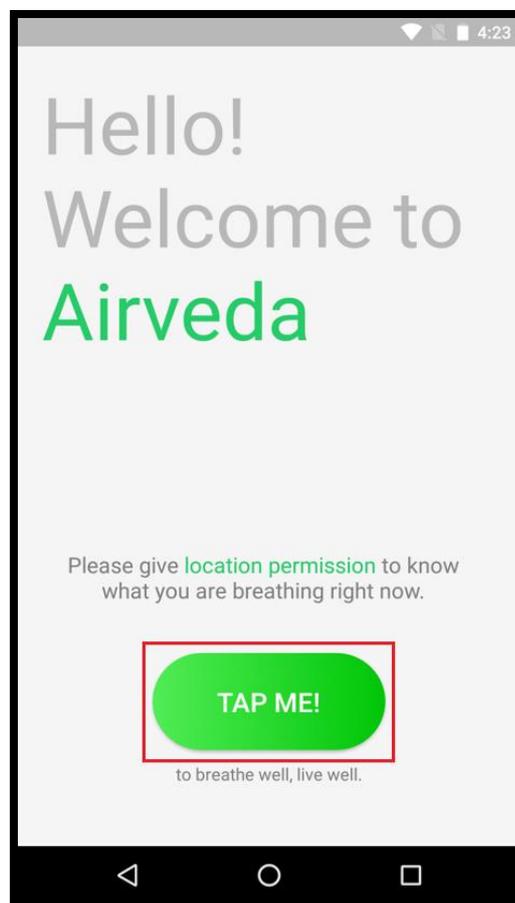
Google Play: <https://play.google.com/store/apps/details?id=in.airveda>

iPhone App store: <https://itunes.apple.com/us/app/airveda/id1101687462>

### Step 2: Open the Airveda app and go through the New User Experience

A). The first time you open the app, you will see a welcome screen with the message - *'Please give location permission to know what you are breathing right now'*.

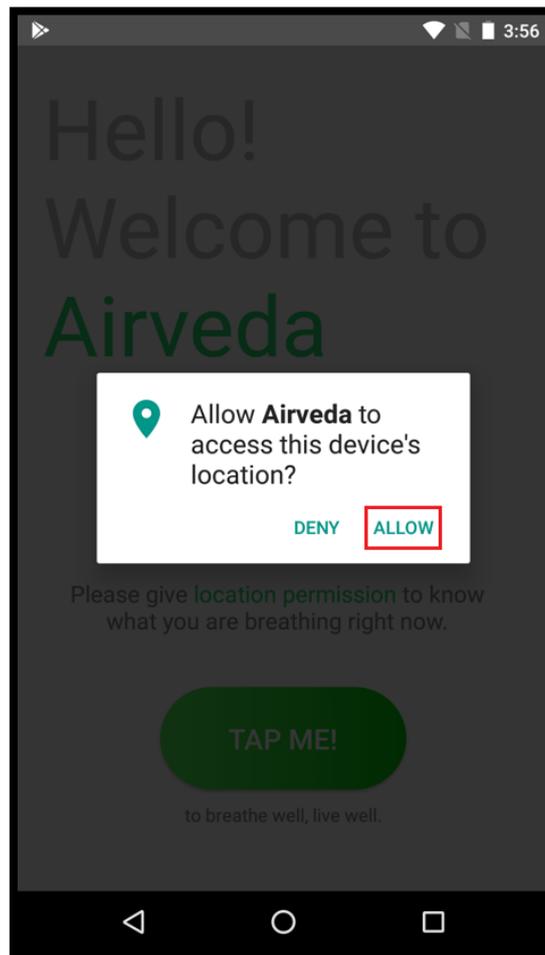
Click '**TAP ME!**'



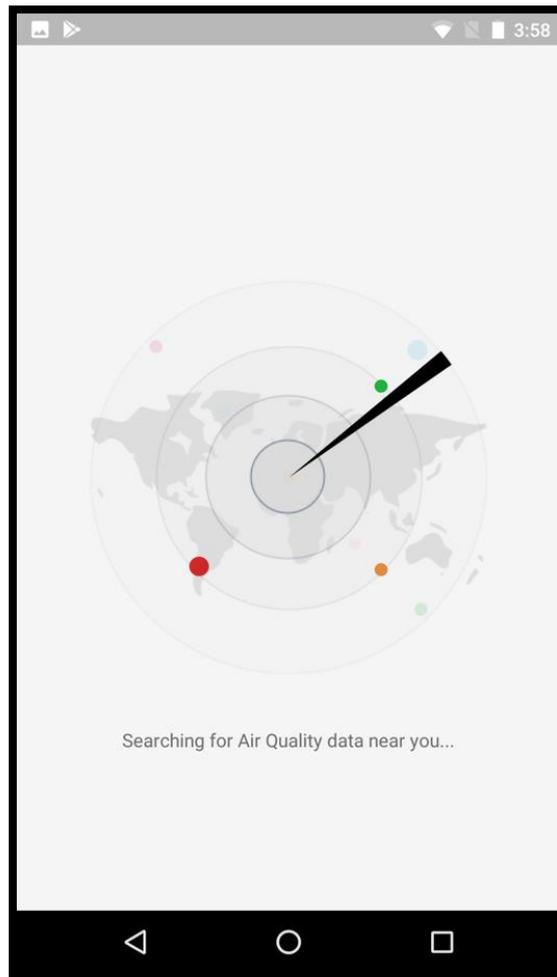
B). A subsequent pop up will display the message - *'Allow Airveda to access this device's location'*.

Click on **'ALLOW'**.

*Note:* The app needs location permission to be able to access location information and Wi-Fi list on your device which will be required during configuration flow.



C). Once you allow location access, the next screen will show you a message - *'Searching for Air Quality data near you...'* This screen will stay for a few seconds.



D). Once location is detected, you will see a screen with your location name, along with 2 options –

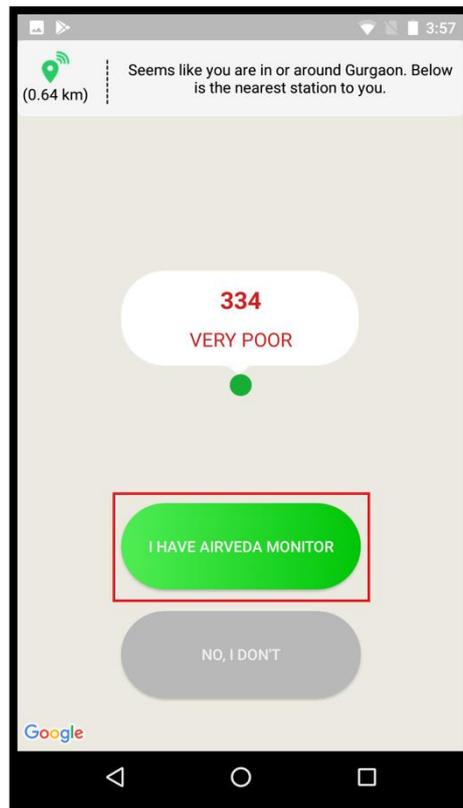
- i) *I HAVE AIRVEDA MONITOR*
- ii) *NO, I DON'T*

Tap on '*I HAVE AIRVEDA MONITOR*'.

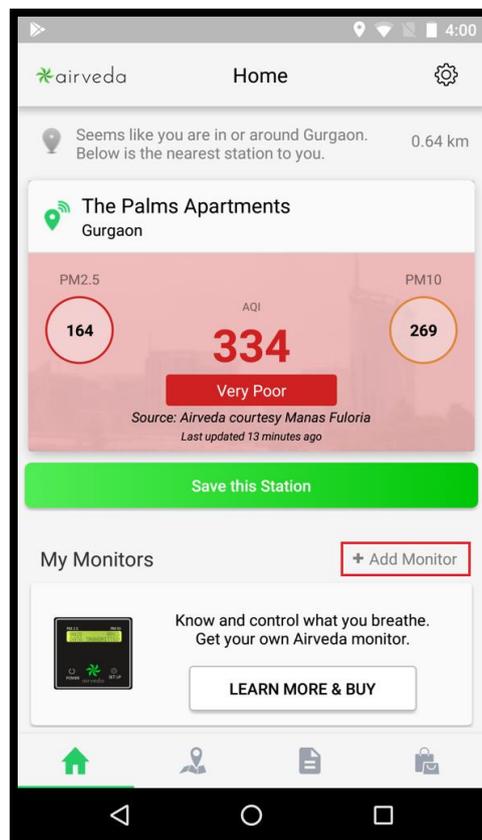
### Step 3: Start the Add monitor flow.

There are 3 ways to start the Add monitor flow. The first 2 will take you through the configuration steps to configure Wi-Fi information in your monitor and need your monitor to be close by. The third will allow you to add the monitor directly (which can be done without having your monitor close by). However this requires that the monitor has been configured with Wi-Fi settings already so that it is already able to transmit data to the server.

A). Clicking '*I have Airveda monitor*' in the first app experience



B). '*Add monitor*' on the home tab of app : You can also start the flow by clicking on '*Add Monitor*' link available in the '*My Monitors*' section on your Home tab.

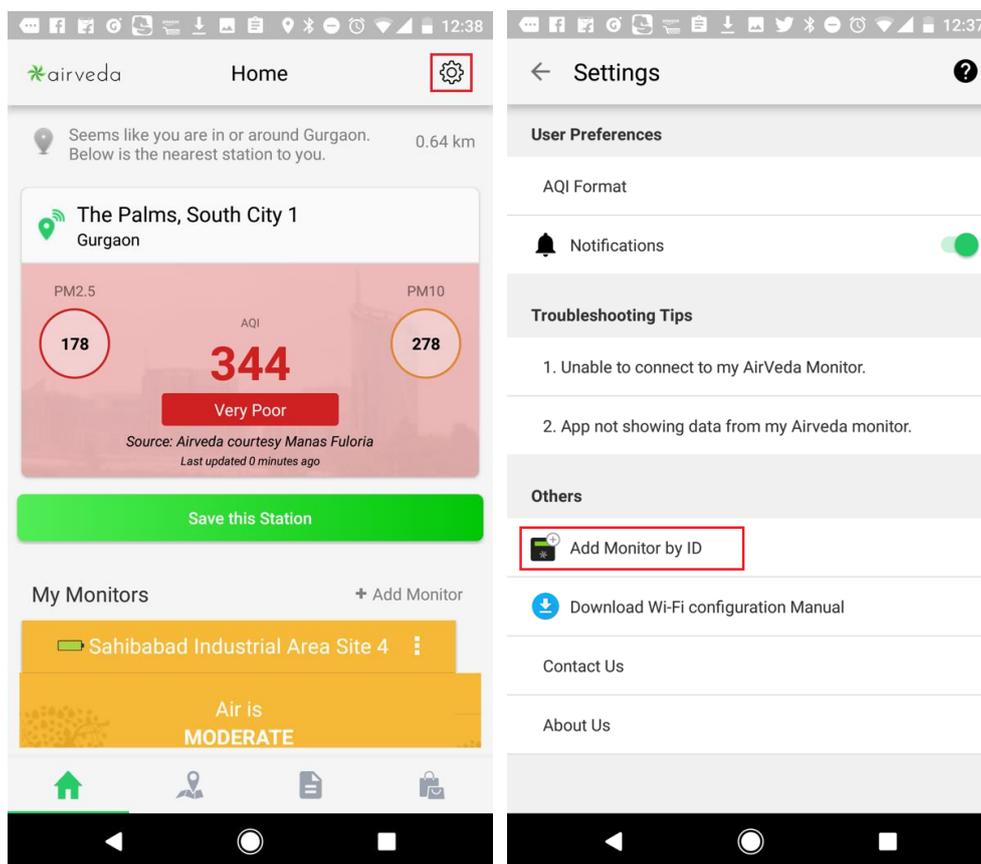


C). 'Add monitor by ID' on the settings tab of the app:

**Note:** You can add a monitor by ID only if you have configured it in the past with a Wi-Fi username and password through one of the entry points mentioned above. Once a monitor has been configured with Wi-Fi and password and is sending data to the server, then it can be added to new devices using 'Add Monitor by ID' and does not need to be configured again and again.

To add monitor by ID

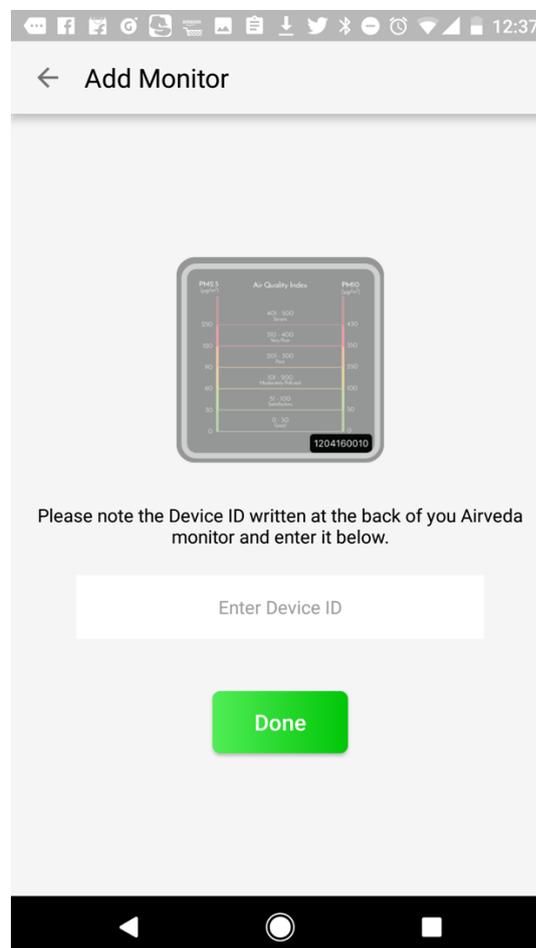
**Step i:** Go to Settings on the top right corner of your home tab, and then click on 'Add Monitor by ID'.



**Step ii :** Note the ID of the monitor on the bottom right of your monitor.



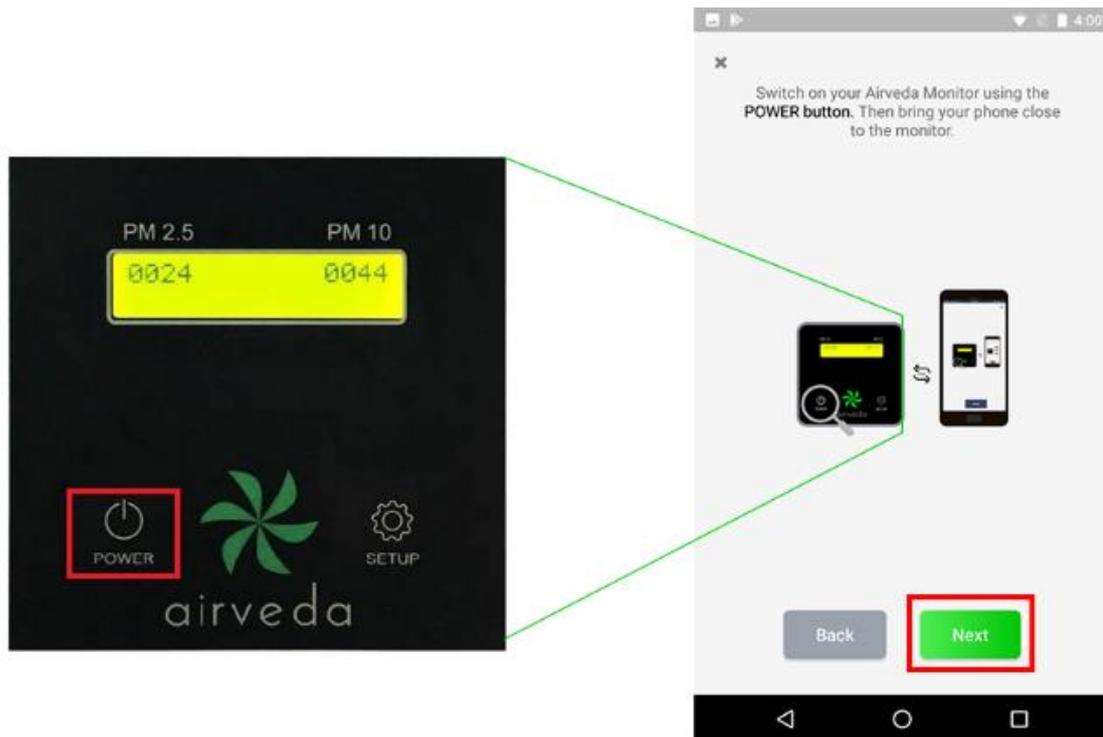
**Step iii:** Enter it in the textbox 'Enter Device ID'. This will add the monitor to your app. And you are done! The rest of the steps are if you are configuring the monitor for Wi-Fi.



### Step 4. Configuration Flow

#### a) Turn on the Airveda air quality monitor

Power on your Airveda Monitor, by pressing the **'Power'** button. Bring your Airveda Monitor close to your phone. Then press **'Next'** in your app.



#### b) Setup mode

Press **'Setup'** button on your Airveda Monitor. Your monitor display will now say **'SETUP MODE WAITING FOR APP'**. Then press **'Next'** in your app.

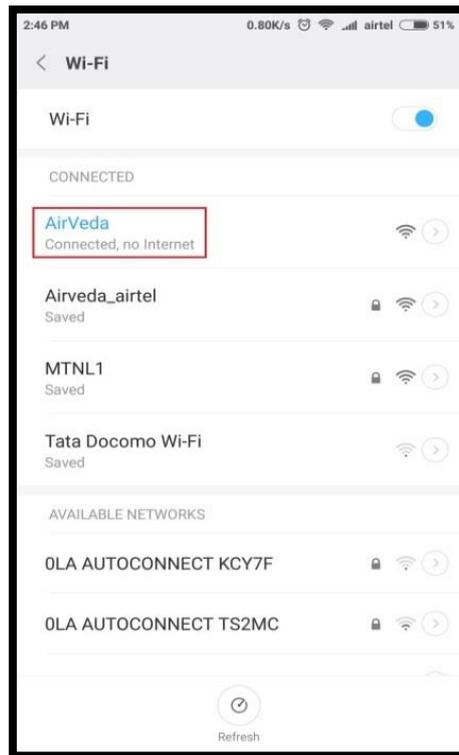


### c) Connect to Wi-Fi AirVeda

The app will then ask you to go to Settings on your phone and connect to Airveda Wi-Fi.

- Go to **'Phone Settings'** on your phone. Click on **'Wi-Fi Settings'** and connect to Wi-Fi named **'AirVeda'**. Make sure that your phone is connected properly to **'AirVeda'** Wi-Fi before proceeding.
- Then go to your app and press **'Next'**.

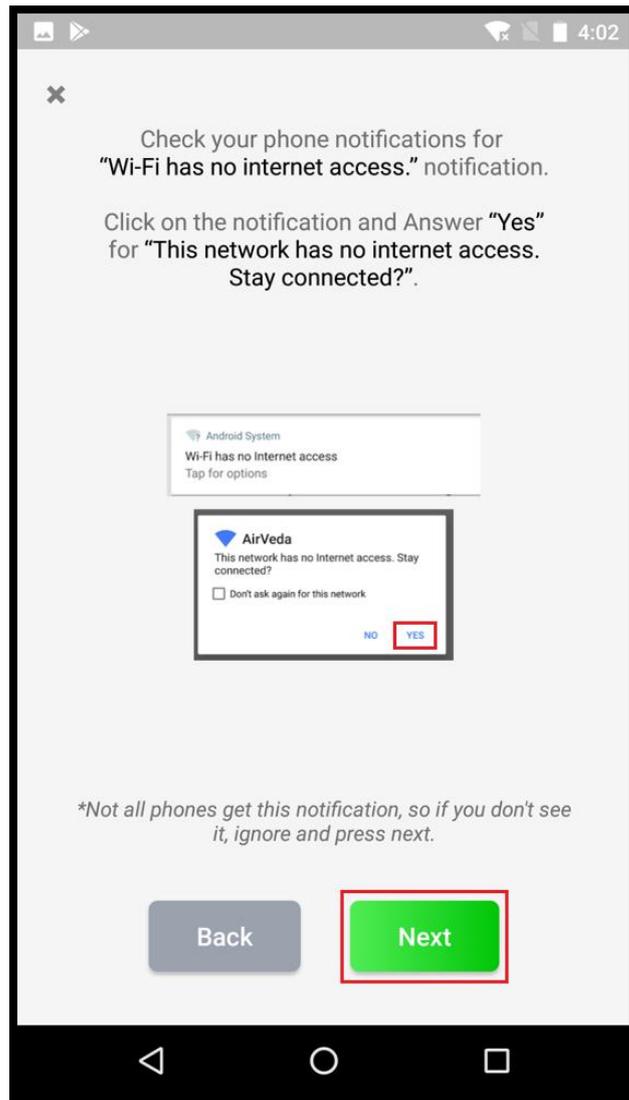
**Note:** If you are not seeing **'AirVeda'** Wi-Fi in your phone, or your app is not able to connect to your Airveda Monitor then please check out **troubleshooting [Tip #1](#)** below.



#### d) Checking for notification (Only in some phones)

After you have connected to 'Airveda' in your phone Wi-Fi settings, in some Android phones with Android 6.0 and above you will get a notification saying **“Wi-Fi has no internet access”**. If you get this alert then click on it and answer **“Yes”** for **“The network has no internet access. Stay connected?”**

If you don't get this notification then please ignore this step and simply press next.



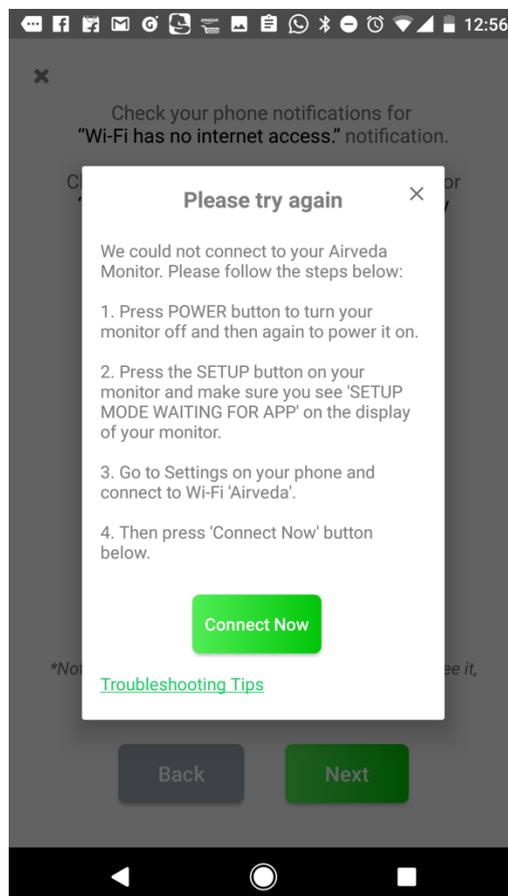
**e) Connecting to Airveda**

Now your app will try to connect to your Airveda monitor.

Once it is connected you will see **“SETUP MODE: CONNECTED TO APP”** on your monitor.



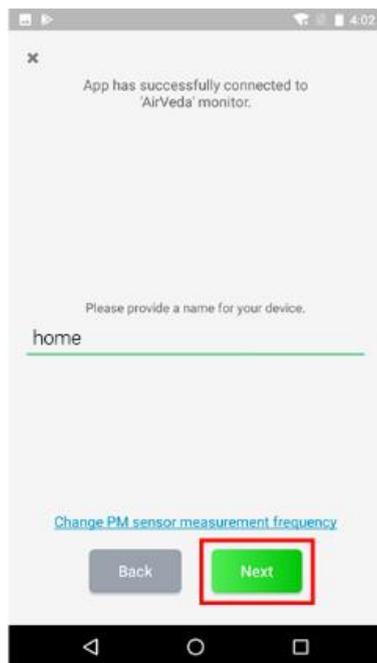
If you **do not** see **‘SETUP MODE: CONNECTED TO APP’** on your monitor and your app shows the screen below instead then please follow Troubleshooting [Tip #2](#) .



### f) Enter monitor name

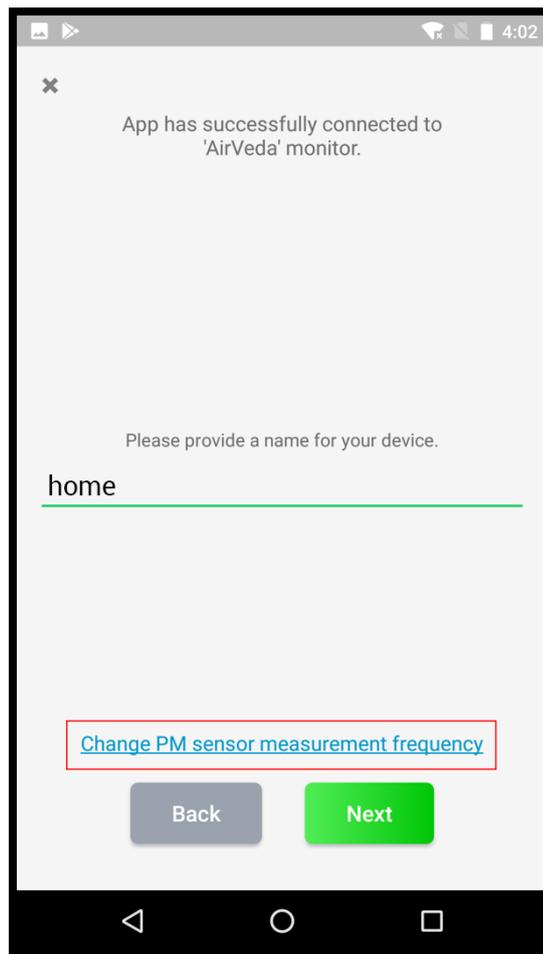
Your app will ask you to **enter a name** for your monitor. Give your monitor a name you will remember it by for example - '**home**' if you keep it at home or '**<your name>**' if you it is for personal use. Then press '**Next**'.

You should now see '**PAIRING DONE - NAME: <name of the device you just entered>**' on your monitor.



### Optional step to configure PM sensor measurement frequency

You can also change the PM sensor measurement frequency by clicking on '**Change PM sensor measurement frequency**' and then selecting the desired frequency.



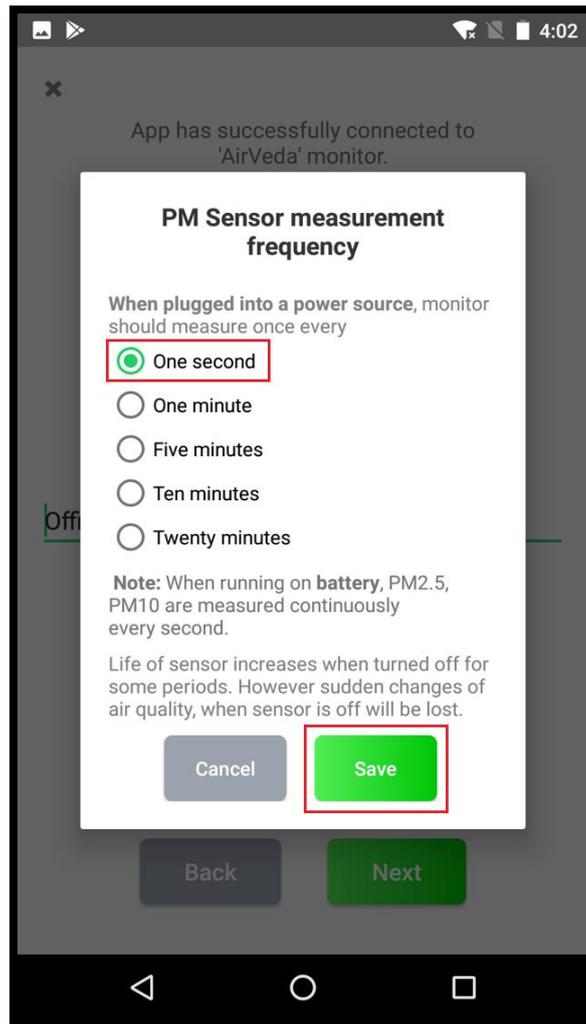
*Note:* The life of the laser in the sensor is 1 year of continuous running.

By default the monitor will measure and show real-time data measured every second, when the device is running on battery. We want to make sure that if you are carrying the monitor around, it is able to update the value immediately as the air quality changes.

However when connected to power the monitor assumes that the monitor is stationed in a single location and hence allows you to extend the life of the sensor by allowing you to configure how often it should measure the air quality. You can choose

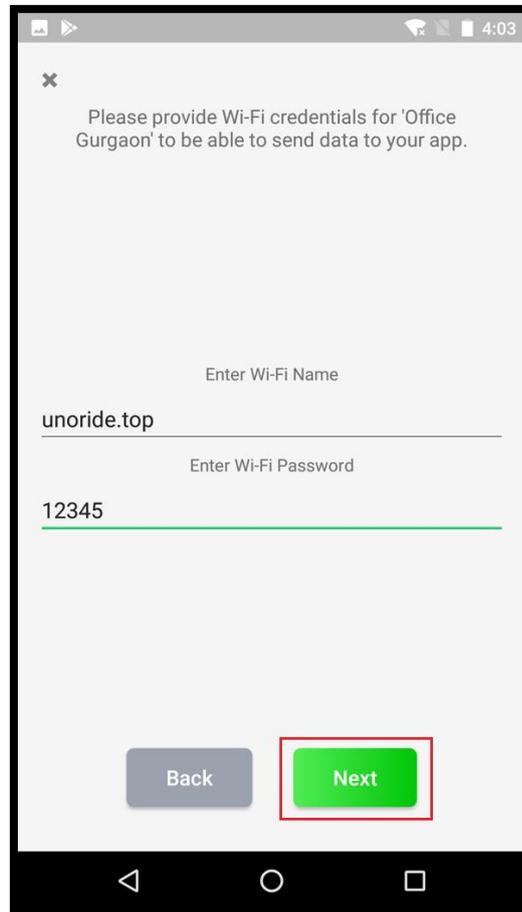
- 1 second (One year life of sensor)
- 1 minute (Runs for 30 seconds then shuts off for 30 seconds – approx. doubling life of sensor).
- 5 minutes (Runs for 30 seconds then shuts off for 4.5 minutes)
- 10 minutes (Runs for 30 seconds then shuts off for 9.5 minutes)
- 20 minutes (Runs for 30 seconds then shuts off for 19.5 minutes)

By default this interval is set at 1 minute to enable you to double the life of the sensor when on power.



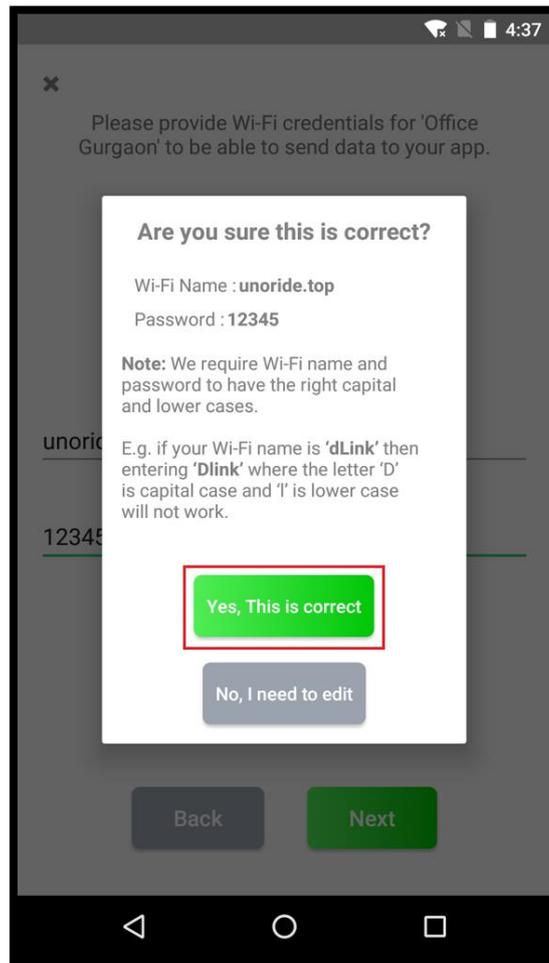
### g) Enter Wi-Fi information

The app will now ask you to enter your Wi-Fi information. Please enter Wi-Fi information and then tap on **“Next”**.



#### Notes:

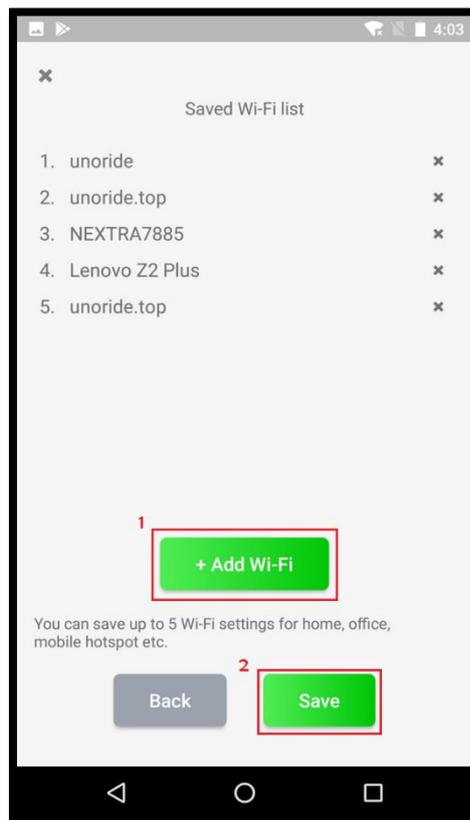
- a) You need to provide both SSID and password for your Wi-Fi. Both SSID and password are **case sensitive** so make sure that you enter capital and small letters correctly.
- b) The device can only connect to open Wi-Fi networks, which are not behind a security firewall. Closed Wi-Fi that require additional username and password to connect to a Wi-Fi are not supported with this device.
- c) In case your Wi-Fi is not open you can choose to add the monitor to your list of secure devices using its MAC ID. You can obtain MAC ID post configuration – see [Tip #5](#).



## h) Add up-to 5 Wi-Fi credentials

You can add up to 5 Wi-Fi networks. You will see a screen with **'Wi-Fi List'** listing the Wi-Fi you have just added. You can go ahead and add another Wi-Fi credential by pressing **'Add Wi-Fi'**.

If you do not wish to enter additional Wi-Fi credentials at this time, then simply press **'Save'**.



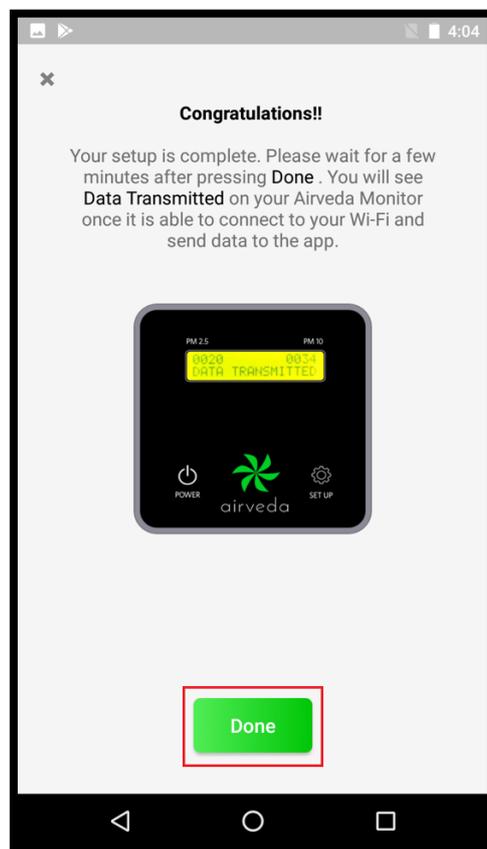
You will see the message **'WIFI SETTINGS RECEIVED'** on the monitor to inform you that the device now has the Wi-Fi settings and will automatically connect to the Wi-Fi networks you have configured once it detects them.

*Note:* You can configure your device, to work with up to 5 Wi-Fi networks at a time. Once configured the device will automatically connect to any of the 5 Wi-Fi networks it finds. You may enter Wi-Fi information for your home, office, personal hotspot, and any other Wi-Fi you want your monitor to connect to seamlessly.



**i) Complete Setup flow**

Now press '**Next**' and you will get a message saying that your Monitor has been successfully configured. Press '**Done**' and your device will automatically come out of the set up mode and start showing data.





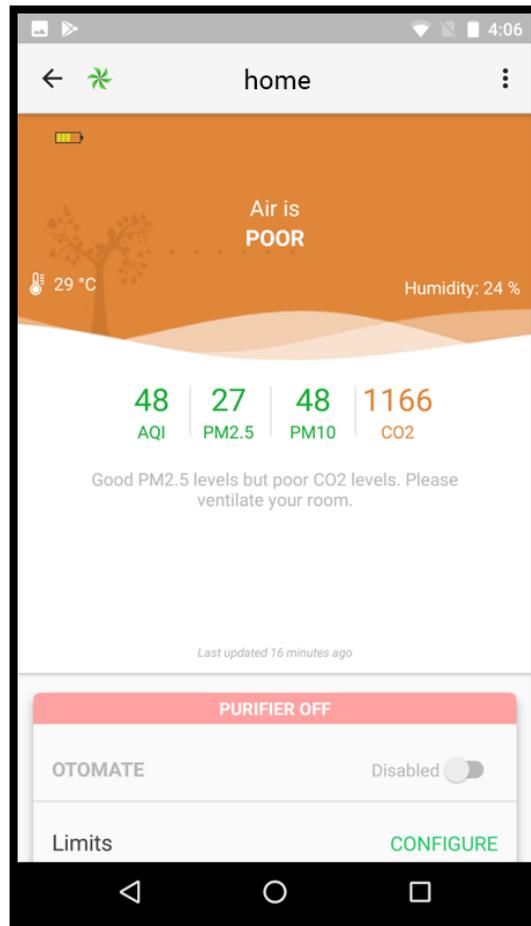
#### j) Wait to let your monitor connect to Wi-Fi

The monitor will now start looking for the configured Wi-Fi. Once it is able to connect you will see the message “**WIFI: <Name of Wi-Fi it is connected to>**”. When it is able to successfully send data it will say ‘**DATA TRANSMITTED**’.



Once you see ‘**DATA TRANSMITTED**’ message in your monitor, you should start seeing the data in your app almost immediately.

*Note:* It may take a couple of minutes for the monitor to find the Wi-Fi and start transmitting data so please wait. If you see the message ‘**Wi-Fi NOT FOUND**’ or after waiting for several minutes you are not seeing ‘**DATA TRANSMITTED**’ then check out the **troubleshooting [Tip #3](#)** below.



## Calibration of CO2 (ONLY RELEVANT FOR CO2 MONITOR – PM2510CTH)

*Note: This section is relevant only if you bought a PM2510CTH monitor which measures PM2.5, PM10, CO2, Temp and humidity.*

CO2 sensor is for indoor usage only. It is calibrated assuming a reading of 400ppm outdoors in the open air and used to measure relative CO2 levels indoors assuming 400 ppm outdoors.

*CO2 Calibration requires the user to take the Airveda monitor outdoors before entering calibration mode by long-pressing Setup button on the Airveda device.*

To calibrate your monitor follow the steps given below:

- **Step 1:** Take the monitor outside and then long press / keep the 'SETUP' button on the Airveda monitor pressed - until you see '**CO2 Calibration Mode**' on your monitor. The monitor display will then ask you to '**Place Monitor Outdoors**'.

- **Step 2:** Now keep the monitor outdoors for 2 full minutes. The monitor will start calibrating device and you will see '**CALIBRATING... 120 sec**' with a 2 minute counter which will count down to 0.
- **Step 3:** Once the counter goes down to 0, the display will indicate '**CALIBRATION COMPLETE**' and automatically start showing normal values. Now your monitor is calibrated and ready to be used. You can take it back indoors.

## Troubleshooting tips

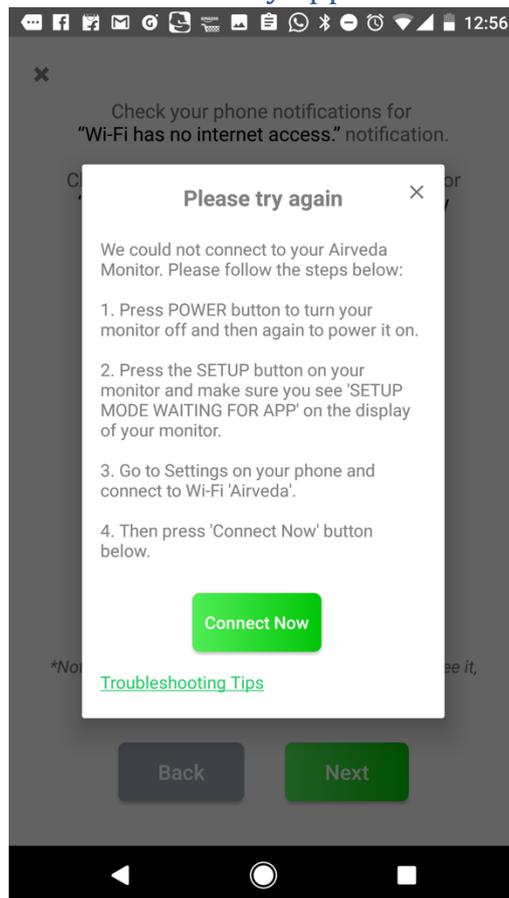
### Tip #1: I don't see 'AirVeda' network in my Wi-Fi list.

Here are a few things you can try:

1. Make sure your monitor display says **SETUP MODE WAITING FOR APP** otherwise press **SETUP** button on your device until you see it. Now check if 'AirVeda' Wi-Fi is showing up in your Wi-Fi list.
2. Try turning your Wi-Fi setting off and then on again and see if 'AirVeda' Wi-Fi now shows up in the list.
3. Press '**POWER**' button twice to turn your Airveda monitor off and then on again.
  - Press '**SETUP**' button on your monitor and ensure you are seeing '**SETUP MODE. WAITING FOR APP**' on your monitor display.
  - Please ensure your monitor is kept close to your phone.
  - Check your Wi-Fi list in Wi-Fi settings on your phone again.
4. Try restarting your phone and repeat the steps.

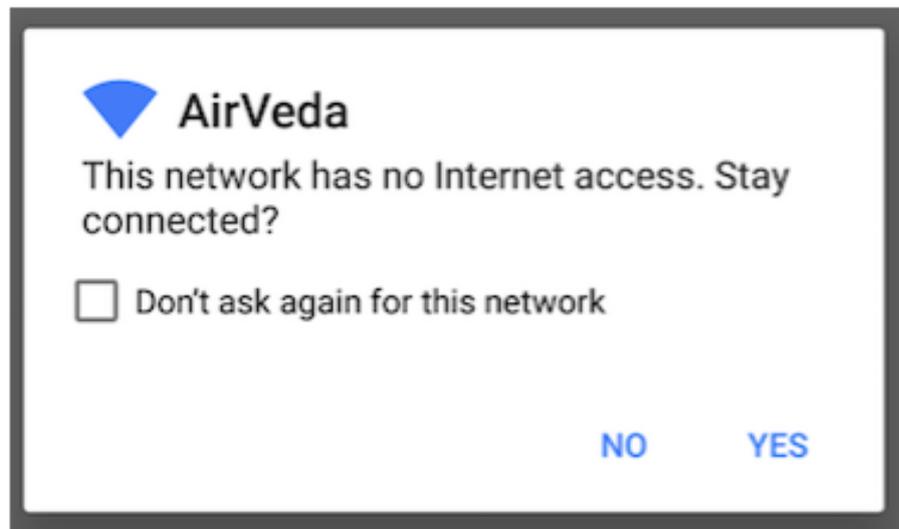
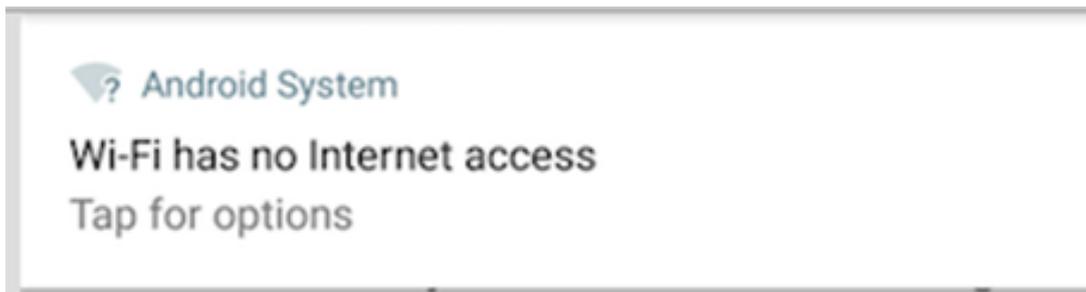
*If you still don't see 'AirVeda' Wi-Fi then please contact [info@airveda.com](mailto:info@airveda.com).*

Tip #2: I have connected to AirVeda Wi-Fi on my phone but my device still says 'SETUP MODE WAITING FOR APP' and my app shows 'Please try again' screen.



This means that your app was not able to connect with your monitor for some reason.

1. Open Wi-Fi settings on your phone and check if you are connected to '**AirVeda**' Wi-Fi. If you are not connected then please connect with '**AirVeda**' Wi-Fi.
  - If you are already connected to '**AirVeda**' Wi-Fi then right click on '**AirVeda**' Wi-Fi and press '**Forget Network**'. Then again connect to '**AirVeda**' Wi-Fi.
2. Then check your notifications tray to see if you receive a '**Wi-Fi has no internet access**' notification. If yes then click on it and say '**Yes**' and then go back to the app screen and press '**Connect Now**' on the screen above. If you don't see the notification then ignore this step and directly press '**Connect Now**' on the screen above. Not all phones get this notification.

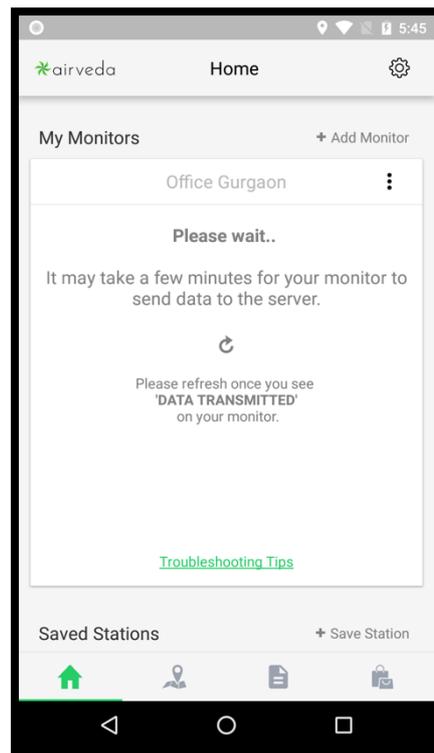


3. If this still doesn't work, then close the app, and restart it. Then follow the configuration steps again.
4. If this still doesn't work try to restart your phone and then try again.

If all fails then please contact [info@airveda.com](mailto:info@airveda.com) and we will be happy to help.

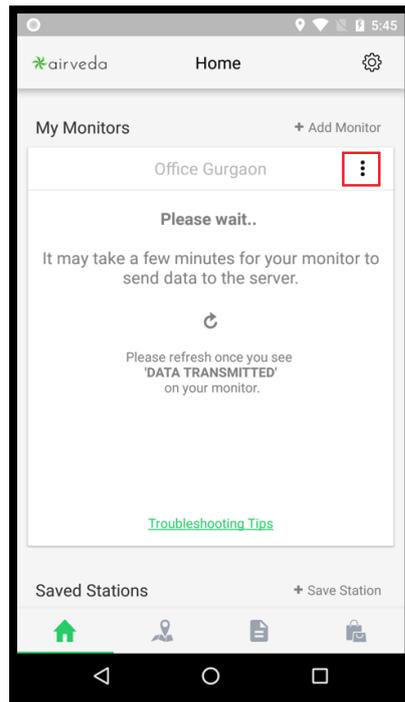
### Tip #3: App is not showing data from my Airveda monitor

I am seeing this screen on my home even after waiting for several minutes:

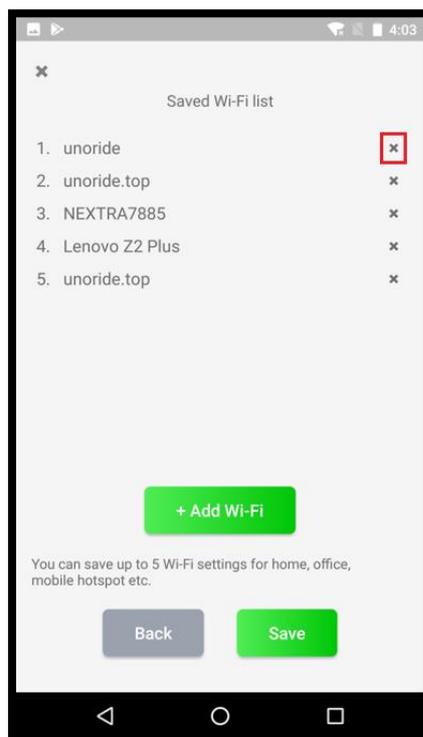


This means that the monitor does not have the right Wi-Fi name and password to connect to your Wi-Fi.

- **Make sure that the password is correct and Wi-Fi is actually working:**
  - Go to your Wi-Fi settings, and check if you are already connected to the same Wi-Fi. If yes then right click on Wi-Fi and say '**Forget Network**'.
  - Then try to connect to the Wi-Fi network and enter your password. If it connects that means that the password is correct.
  - Once connected to Wi-Fi, navigate to browser on your phone, and enter some search term. If the browser updates with the right information then it means that the Wi-Fi is working.
- **Write down the Wi-Fi name and password you just checked ensuring that the right capital and small letters for Wi-Fi name and password**
  - Make sure both SSID and password have correct capital and small letters. So '**dLink**' is different from '**Dlink**' where the letter '**d**' is small case and '**L**' is capital case.
- **Configure again:** Go to the three dots on the screen and press '**Configure**'.



- **Enter Wi-Fi name and password:** Follow steps in the configuration flow. When you reach the Wi-Fi list screen, make sure you delete any old Wi-Fi credential you had entered and enter the correct ones again.



Check if you start seeing **'DATA TRANSMITTED'** on your device.  
 If you are still not able to see **'DATA TRANSMITTED'** after several minutes then contact [info@airveda.com](mailto:info@airveda.com)

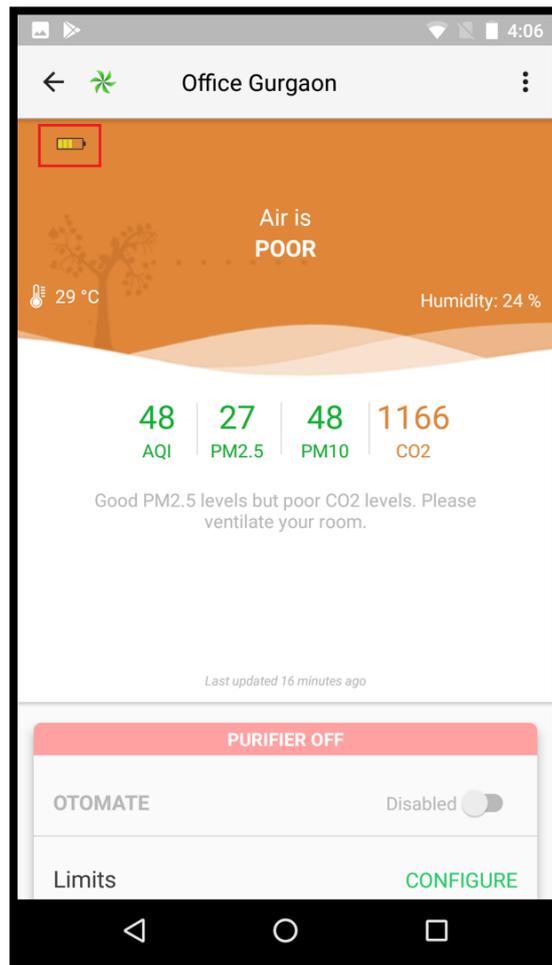
## Tip #4: What do the different Monitor display text mean?

Below are the Wi-Fi states you may see on the display of the monitor.

1. **SETUP MODE WAITING FOR APP:** Monitor is now a server and creates a Wi-Fi named 'AirVeda'.
2. **SETUP MODE CONNECTED TO APP:** Your phone has successfully connected to the 'AirVeda' Wi-Fi.
3. **PAIRING DONE NAME: <name of monitor>:** The App can communicate with your Airveda Monitor and has set specified name.
4. **WIFI SETTINGS RECEIVED:** The monitor has received the Wi-Fi settings you entered in your app.
5. **PLEASE SET WIFI :** No Wi-Fi credentials have been configured on the monitor. To set Wi-Fi credentials please follow steps detailed in Wi-Fi configuration manual<link>.
6. **WIFI NOT FOUND :** Monitor has Wi-Fi credentials, but is unable to find and connect to the specified Wi-Fi. If your Wi-Fi is available, then please follow [Tip #3](#) to resolve issue.
7. **WIFI: <name of WIFI> :** Your monitor has successfully connected to <name of Wi-Fi>.
8. **DATA SAVED :** Data is being saved locally on the monitor. If you keep seeing this without any intermittent DATA TRANSMITTED, then your monitor is unable to connect to Wi-Fi.
9. **DATA TRANSMITTED:** The monitor is able to connect to the Airveda server and has successfully transmitted data. You should be able to see data from the monitor in your app.
10. **PLEASE RESTART:** The Wi-Fi module needs a reset, so please press the 'POWER' button twice to turn the monitor off and then on again. If you are seeing 'PLEASE RESTART' often or continuously then please contact [info@airveda.com](mailto:info@airveda.com).
11. **PLEASE CONFIGURE:** This happens when there is some memory issue on the monitor. In this case please follow steps in this manual to configure your monitor with your Android app. In most cases the app will fix the issue. In case you keep seeing 'PLEASE CONFIGURE' even after following all the steps in this manual, then please contact [info@airveda.com](mailto:info@airveda.com).

**Tip #5: I want to know the battery level on my monitor.**

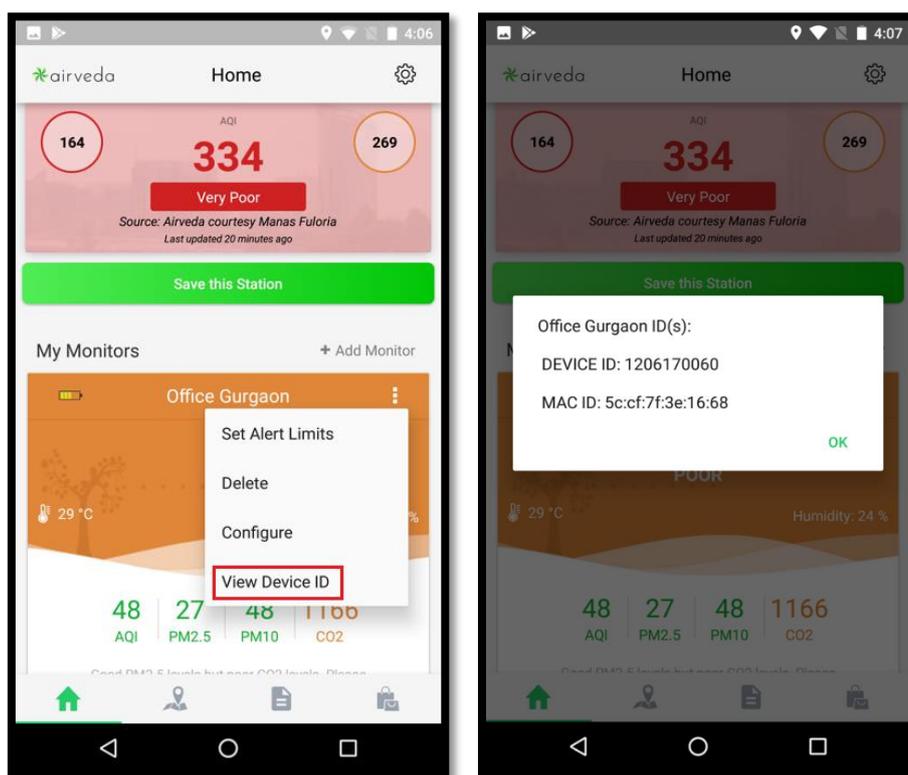
You will be able to view the remaining battery on your monitor in your app once your monitor is configured. Note the battery sign on the top left. If you see low battery like in the screenshot below where there is only 1 bar please connect to power. As a general tip please charge your Airveda Monitor for 3-4 hours after taking it out of the box to ensure sufficient battery in your monitor.



### Tip #6: How can I view my Airveda monitor's MAC ID ?

You can view your monitor's MAC ID by clicking 3 dots on top right corner of your monitor's card in Airveda app as indicated by a blue arrow below. Then click on **'View Device ID'** and both your DEVICE ID and MAC ID will be displayed in a pop up.

Note that you only see MACID if you have directly configured your monitor with your app. If you have added device by ID then you will not see the MAC ID.



### Tip #7: Are there other precautions I should take with my Airveda Monitor?

1. Please keep the unit away from strong heat, very heavy smoke and water.
2. The big hole of sensor should be left exposed to ensure that air from outside can enter the monitor for correct readings.
3. If the unit is showing incorrect readings or you see numbers on the display that don't make sense, it is advisable to re-configure the monitor using the app.
4. The monitor has been built with the ability to re-calibrate remotely, so we advise you to connect your monitor with Wi-Fi regularly to allow it to get the latest calibration based on its location.

If you have any other issues with using your Airveda monitor or the Airveda app, please contact us at [info@airveda.com](mailto:info@airveda.com) . We will be happy to help you resolve it.