

# AIRU SENSOR NETWORK



**AirU Sensor Network**  
Installation Guide

# Thank you for selecting an AirU Sensor. Let's get started.

The complete setup of your sensor should take less than 10 minutes.

If you have questions about the process, please reach out to your local city team first. If your city team is unable to resolve your problem, please contact us at [contact@tetradsensors.com](mailto:contact@tetradsensors.com). Please provide your name, phone number, and a window of time we may call you. We will attempt to get in touch with you within 48 hours.

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# Compatability

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The AirU Sensor is compatible with almost all Wi-Fi routers, but is limited to 2.4GHz.

You do not need to have your AirU device housed in it's final outdoor location while setting up, though it is recommended if you are unsure whether the WiFi signal in the final location will be strong enough to reach the AirU device.

**A Wi-Fi connection is required to control your AirU and to recieve software updates.**

# In the box

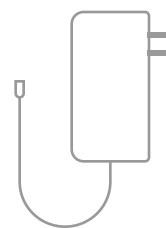
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**Your box should contain the following items:**

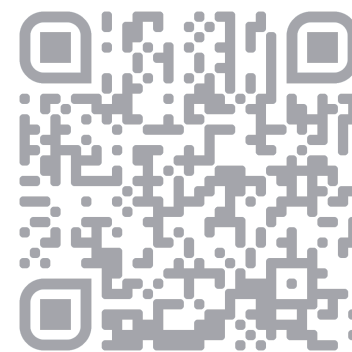
- An AirU sensor
- An AC-DC power supply
- A card with a QR code and link to the Tetrad Connect App and instructions



**AirU**



**Power Adapter**



**QR Code**

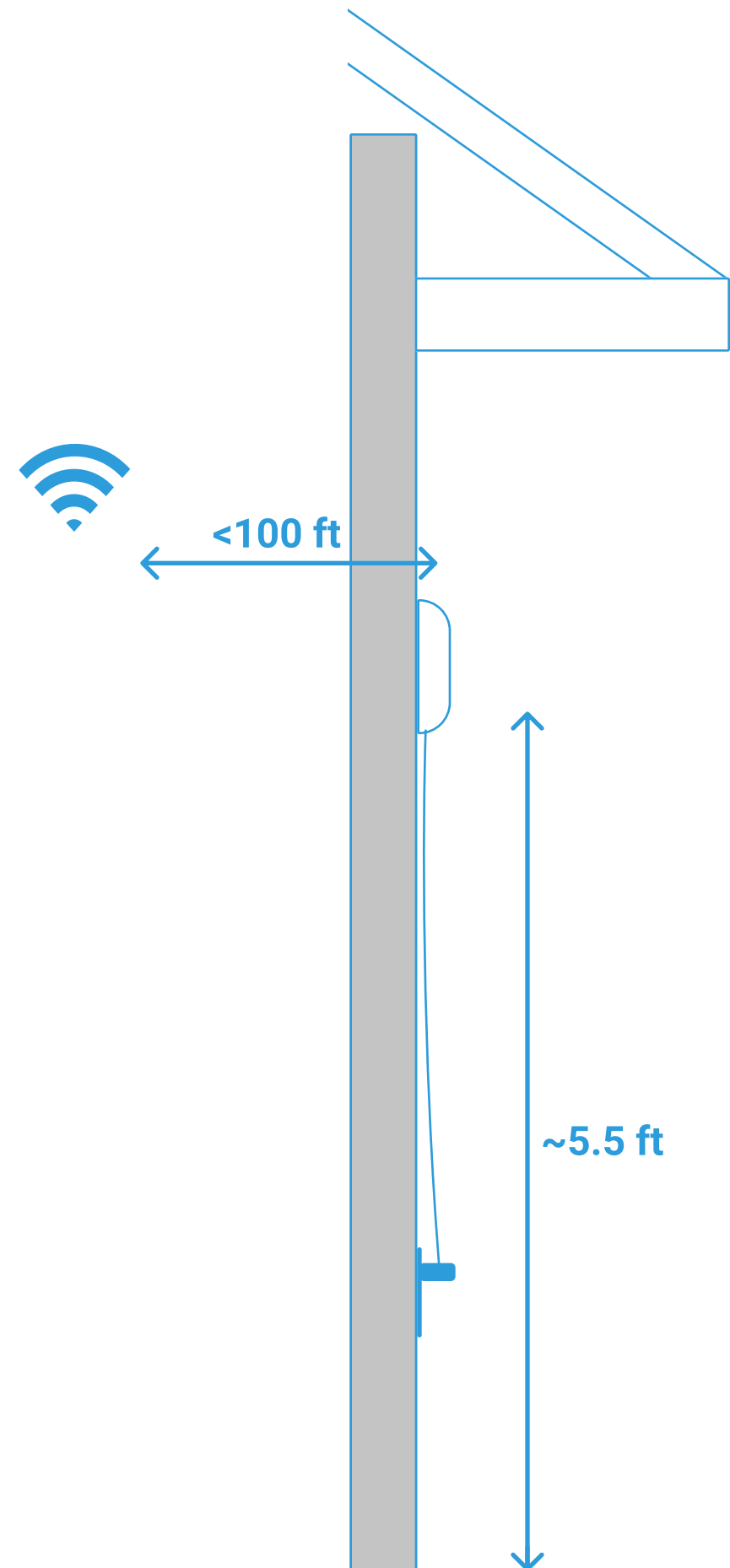
# Before you start

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## Where should you install it?

- Place it near an outlet and within 100 feet of your Wi-Fi router. Closer is generally better. Walls and large objects between them can affect their communication range. A good rule of thumb is to ensure that your mobile device has at least 2 bars of service.
- The AirU sensor should be located in an area that's unobstructed and at normal breathing height or higher.
- Make sure that it's away from exhaust vents and cooking sources.
- For outdoor use, install the AirU in a protected location, like under an eave.

**IMPORTANT:** The AirU and power adapter are not waterproof.



# Installation

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## Install the AirU

We recommend placing the sensor at breathing height or above.

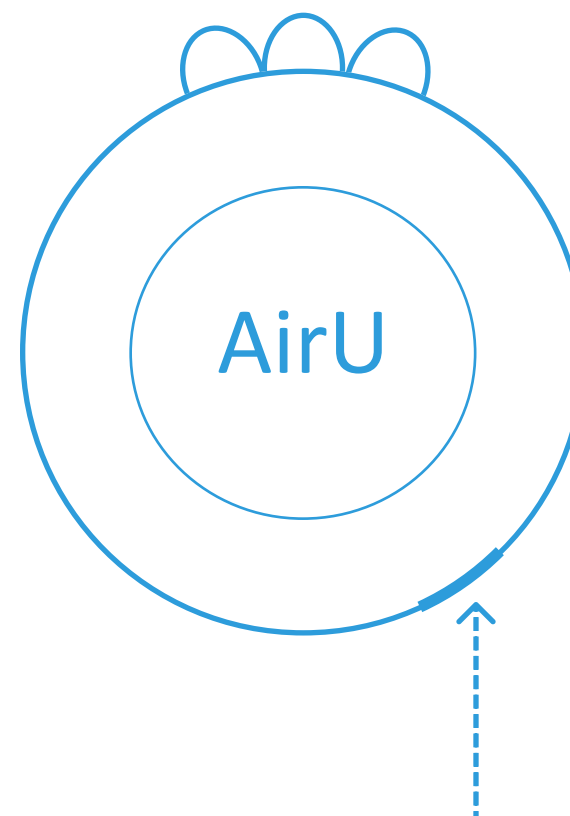
You can hang your sensor, mount it directly to a wall, or you can place your sensor on a flat surface, wide side down.

If you place it on a flat surface, you might want to strap it down. It weighs ¼ lb and can easily be knocked over.

We recommend a sheltered location, like under an eave for the AirU sensor. Its housing is not waterproof.

## Connect power adapter

Connect the power cable to the bottom of the AirU and plug it into a wall socket. A yellow light will turn on inside the AirU housing, confirming that the device has power.



**NOTE:** The opening for the USB power supply should be facing down.

# Connecting to Wi-Fi

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## Download Tetrad Connect

To connect your AirU device to your desired Wi-Fi network, please download the Tetrad Connect App, available on the Apple Store and Google Play Store. You may scan the QR code directly using your smartphone's camera to be directed to the app.



## Open Tetrad Connect

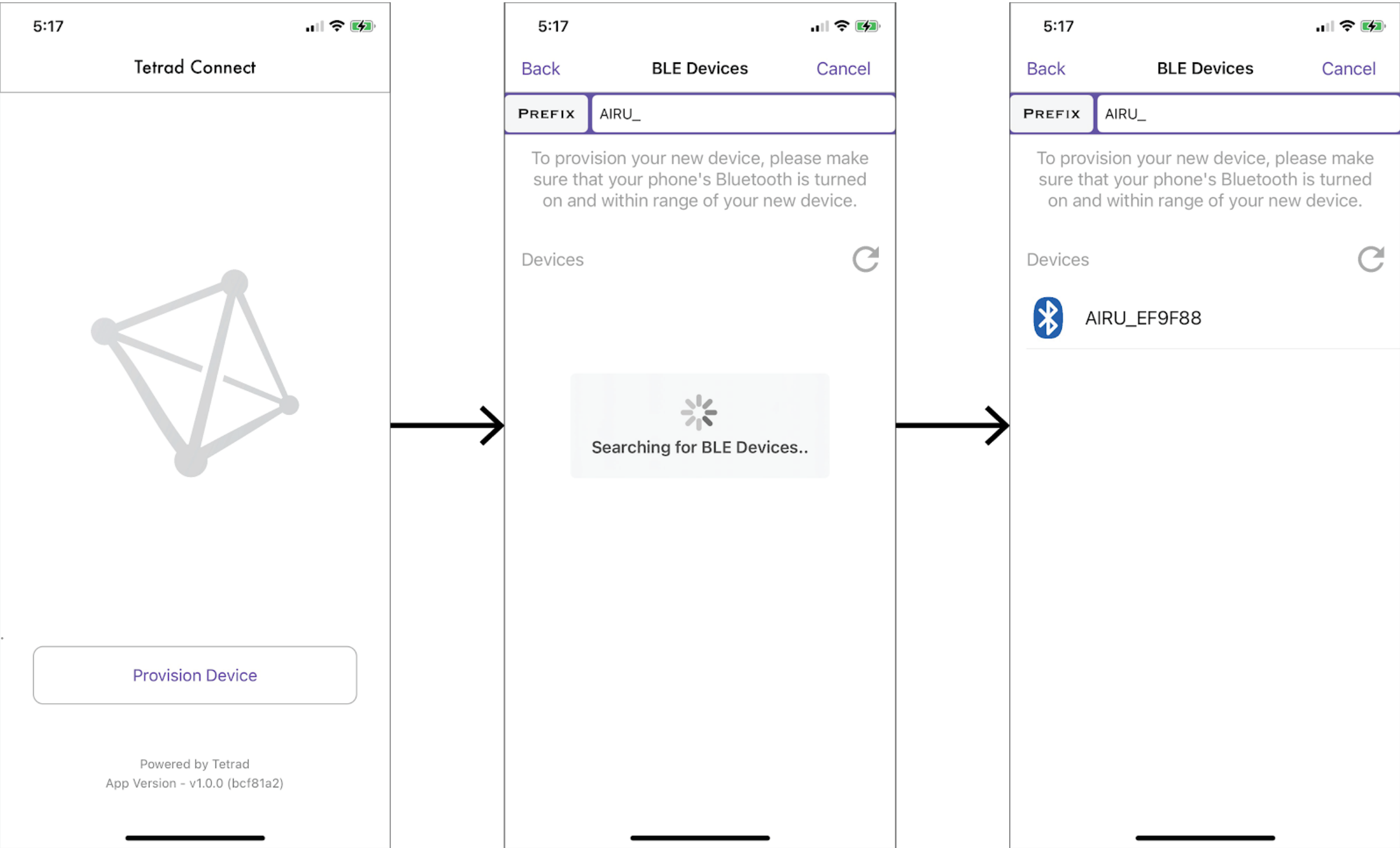
Once you download and open the Tetrad Connect App, you will be asked to enable Bluetooth and allow access to the app. On Android devices you will also be asked to enable location services. Android requires location services to run Bluetooth scans from your smartphone, which is necessary for our app to find your AirU device.





# Connecting to Wi-Fi

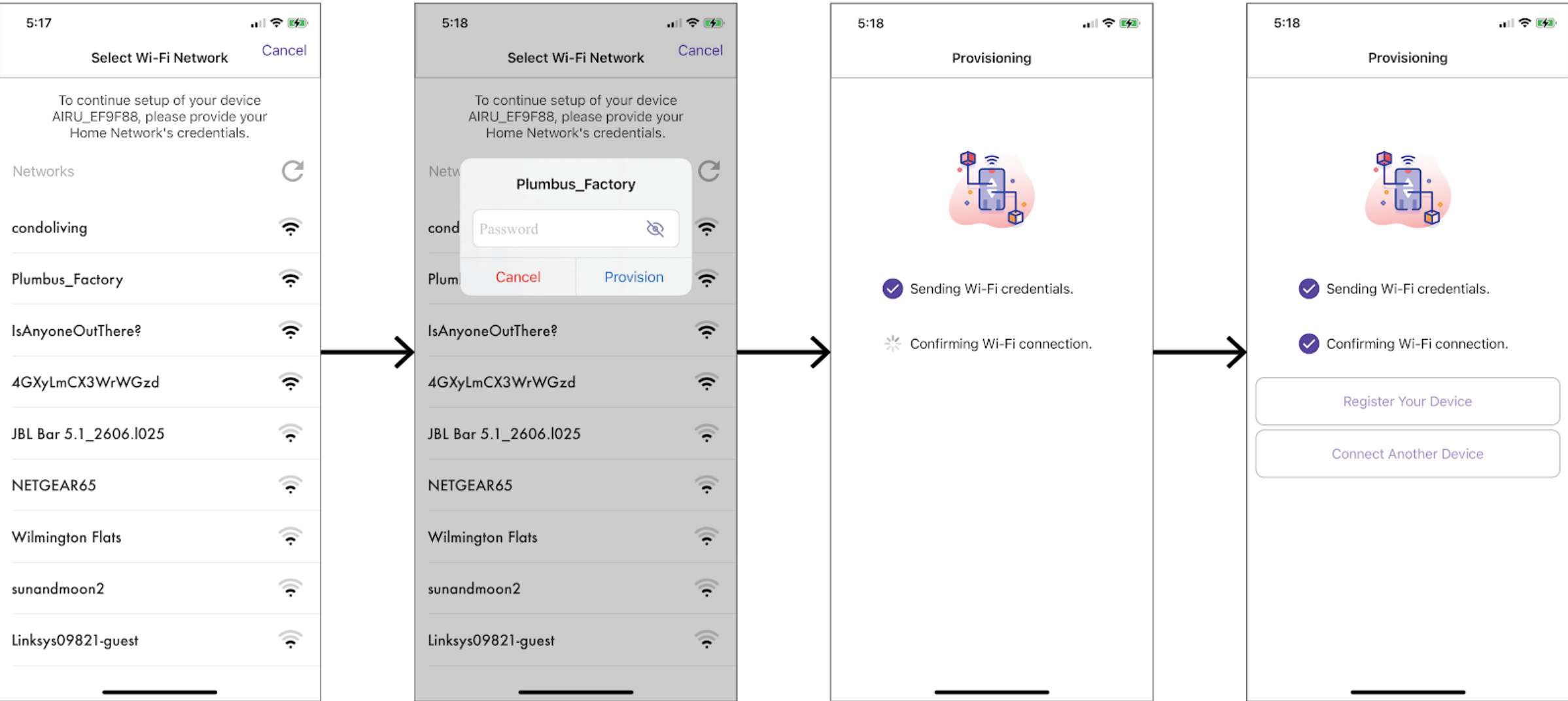
You may now begin the process of connecting your AirU device to your desired Wi-Fi network using the Tetrad Connect app. First, the app uses Bluetooth to scan for nearby AirU devices. All found AirU devices will appear as “AirU\_XXXXXX” on the app after a short delay. Click on the device you would like to connect to your desired Wi-Fi network.



**NOTE:**Must be in close proximity (within 5 feet) to your AirU device.

# Connecting to Wi-Fi

The app will then perform a Wi-Fi scan to find all available Wi-Fi networks in the vicinity. Choose the Wi-Fi network from the list. The app will then prompt you to input your Wi-Fi password. Enter the password and tap Okay. Your Wi-Fi credentials will be securely transferred over an encrypted Bluetooth communication to the AirU device. The AirU device will then attempt to connect to the WiFi network. After 5-15 seconds, the app will display whether the Wi-Fi connection was successful. The red LED on the AirU device will also turn off when the AirU has a Wi-Fi connection.



**NOTE:** The AirU will only work with 2.4GHz Wi-Fi networks.

# What do the lights indicate?

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## **Your AirU has three colored lights:**

- The yellow light indicates that you have power.
- The red light indicates that your Wi-Fi is not connected.
- The blue light indicates that you do not have a GPS signal.

# Troubleshooting

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## Helpful Tips:

If your Wi-Fi network does not appear, ensure that your AirU device is close to the router and that the desired network is 2.4 GHz (not 5 GHz).

The AirU performs the actual Wi-Fi scan and sends the results to your smartphone. You can view the signal strength of each WiFi network to gauge the feasibility of the AirU device's current location.

If the app shows that an error occurred, it is likely due to an incorrect Wi-Fi password. Please try again and ensure the password is correct.

If the app "hangs" while loading and you do not see a response after 15 seconds, it is likely because your smartphone is too far from the AirU device, or the AirU device is too far from the router, and a full communication was not completed. Check whether the red LED on the AirU device has turned off. If so, the AirU has connected to the WiFi network and no further configuration is needed. If the red LED is still illuminated, please retry the connection process while ensuring that the AirU device and router are nearby (in the same room).

## Connecting to WiFi Networks with a Captive Portal

The AirU devices will not work on any network that uses a captive portal. A captive portal is the HTML popup you see on your phone or laptop when you connect to a public network (such as in a hotel, airport, or coffee shop). The AirU device does not work with captive portals because they require manual confirmation to proceed. If you are in contact with the system administrator for a Wi-Fi network that uses a captive portal to join the network, it is likely that the system administrator can set special permissions to allow the device to connect. They will need the AirU's MAC address, which can be found by scanning the QR code on the back of the AirU's housing, or the QR code on the backside of the physical PCB, inside the housing.

## Connecting to an iPhone Hotspot

If you are attempting to connect to an iPhone hotspot, please note that the default Wi-Fi network name is "User's iPhone". The apostrophe is not parsable by the AirU, and you will not be able to connect. You will need to rename the network by navigating to Settings->General->About->Name and remove the apostrophe from the name. As an example I changed my iPhone name from "Tom's iPhone" to "Toms iPhone". When renaming, please only use alphanumeric characters (0-9,a-z,A-Z) and spaces. Also do not exceed 32 characters.

# FCC Caution

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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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# Congratulations!

Your AirU device is now connected to the Internet! The Wi-Fi credentials are safely and securely stored on the AirU device, and will be retained even if your AirU is unplugged or unintentionally loses power. When the AirU regains power, it will automatically connect to the stored Wi-Fi network. If you have not already, you may now mount your sensor in the desired protected, outdoor location.