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RF Solutions MINIHUB-1 Configuring a RIoT-Minihub System User Guide

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# RF Solutions MINIHUB-1 Configuring a RIoT-Minihub System

Monitor RF Sensors/Switch Inputs on your Smart Device/PC Follow this procedure to:

- Set up your Smart device to receive and display data from RIoT RF Sensors/Switch input Transmitters.
- Set up an autonomous Remote Control Receiver Operation when a Switch or Sensor level is triggered.
- Setup Alert Push notifications to your Smart device when a Switch or Sensor level is triggered.

RIoT-Minihub Setup

1. Connect the Antenna
2. Connect the USB Cable to a USB power source

Once completed you can then configure your application
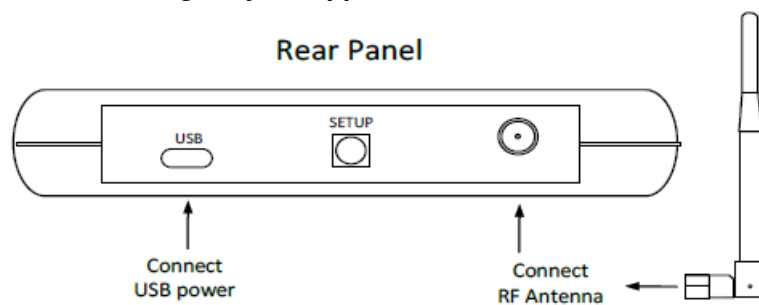
RIoT-Minihub Status

Throughout setup, the RED Data LED on the front panel provides ALL feedback and status information! Please be patient when configuring, with Wi-Fi, it can take up to 30seconds for confirmation or reset to complete!

Data LED	Operating Mode	Description
ON	Normal	RIoT-MINI HUB is connected to Wi-Fi
1x Flash	RF Receive	RIoT-MINIHUB has received a valid signal from a paired Sensor/ Transmitter
2x Flash	Setup Mode	In Setup Mode
3x Flash	Learn Mode	RIoT-MINI HUB is ready to Learn an RF Sensor/Switch or Transmitter
4x Flash	Wi-Fi Error	No Wi-Fi Connection
5x Flash	Webservice Error	Cannot connect via the Internet

Factory reset

1. Press and hold RIoT-MINIHUB Setup Switch, then apply power
2. Wait for the Data LED to flash at high speed (~5sec)
3. Release the Setup Switch
4. RIoT-MINIHUB is restored to factory default.

Setup Procedure: Before you Start

- You need a Smartphone / Tablet or Smart device connected to your local Wi-Fi

- Download & Install the following Apps from the App Store

**You now need to complete the following Tasks**

Stage	Description
1	Configure RIoT-MINIHUB to Login to your local Wi-Fi
2	Pair your Smart device with RIoT-MINIHUB
3	Pair an RF Sensor/Switch with RIoT-MINIHUB
4	Pair an RF Sensor/Switch to your Smart device App

Additional Optional User Settings

Stage	Description
5	**Configure** an RF Sensor/Switch Transmitter
6	**Direct Control** Local RF Remote Control Relay Switching
7	**Alerts!** Setup Push notifications to your Smart device

Stage 1

- Configure RIoT-MINI HUB to your local Wi-fi
- This Option uses a PC
- If no PC is available use the RIoT Wi-Fi Wizard App
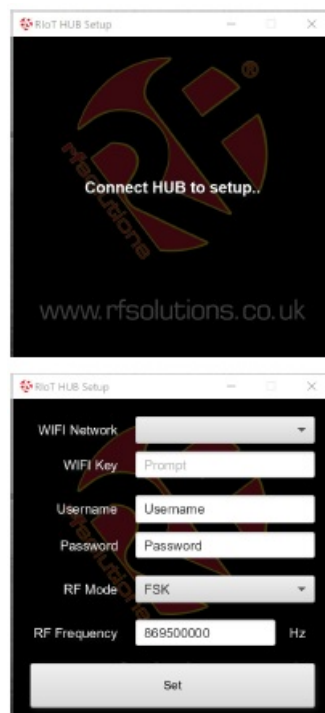
1. From RF Solutions website download the "hub_setup.exe" to your PC. (Can be found in the Information/ Downloads section)
2. Follow the instructions to Connect the RIoT-MINI HUB to the PC USB using the supplied USB cable.
3. Select your local Wi-Fi network and enter Wi-Fi Password
   1. Press "set" and "Reboot"
4. After reboot (allow 30 seconds), the RIoT-MINI HUB will login into the local Wi-Fi and the LED will illuminate
5. Check the Red Data LED is on constantly, indicating that RIoT-MINI HUB is registered on the local Wi-Fi

1. Exit from the Configuration App and proceed to Stage 2

Stage 1

- Configure RIoT-MINI HUB to your local Wi-Fi
- This Option uses the RIoT Wi-Fi Wizard App
- And a Smart device

1. Press and hold the SETUP Switch on the RIoT-MINI HUB until the DATA LED on the front panel stays ON. (takes ~5 seconds),
2. Release the SETUP Switch
3. The Data LED will now Flash 2X. RIoT-MINI HUB is now broadcasting its own Wi-Fi SSID
4. On your Smart device run the Wi-Fi Wizard App
5. RIoT-MINI HUB SSID will appear on the Smart device app,
6. Select "MHXXXX" and "Connect" to open the Wi-Fi Setup page.
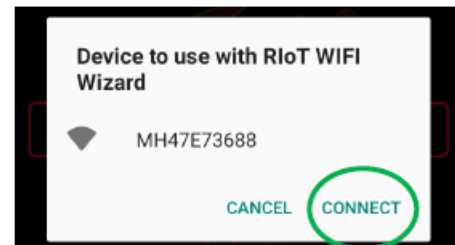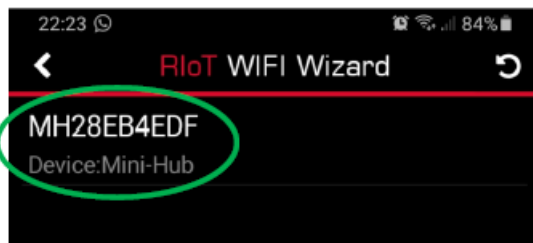

Complete the Table

1. Select your local Wi-Fi network and enter Wi-Fi Password
2. Press "set" and "Reboot"
3. After reboot (allow 30 seconds), the RIoT- MINI HUB will login to the local Wi-Fi and the LED will illuminate

4. Check the Red Data LED is on constantly, indicating that RIoT-MINI HUB is registered on the local Wi-Fi Exit from the App and proceed to Stage 2

Pair your Smart Device with RIoT-MINI HUB
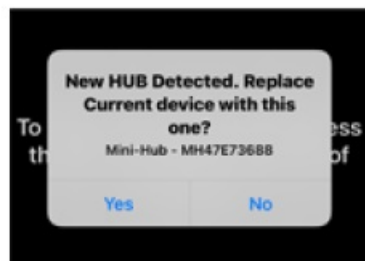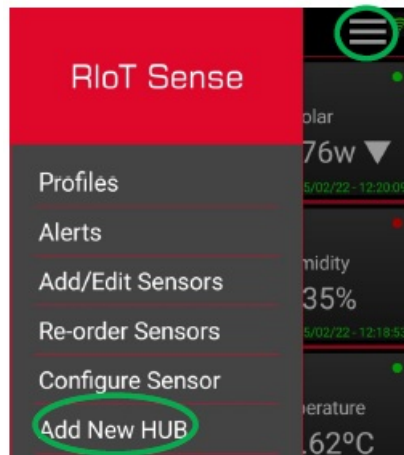
1. Run the SENSE App
2. Select Menu, Add New Hub
3. Your Smart device is now ready to pair with the RIoT-MINI HUB
4. On the RIoT-MINI HUB briefly press and release the Setup Switch, (RIoT-MINI HUB transmits a Learn Signal, the Data LED switches off briefly)
5. Sense APP will show "Hub Detected"
6. Select Yes
7. Your SMART DEVICE is now paired with the RIoT-MINI HUB.
8. Select OK to Exit the hub Setup
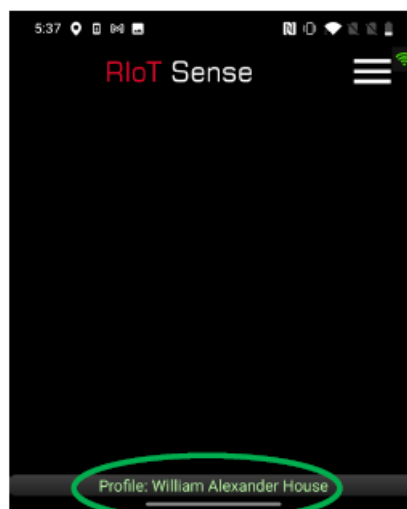
Note: PROFILES

- RIoT Sense App can operate with Multiple RIoT-MINIHUBs located in different locations. In order to differentiate these, are set as Profiles. So for example the user may have; Minihub at Home, at Work, or in a shed!
- RIoT SENSE App can communicate with each
- RIoT-MINI HUB as an individual "Profile

Stage 3; Pair an RF Sensor/Switch with RIoT-MINI HUB

1. Press the RIoT-MINI HUB Setup Switch until the Data LED starts to flash (~1sec)
2. The Red Data LED will now flash 3X to indicate RIoT-MINI HUB is ready to Learn an RF Sensor/Switch or Transmitter
3. On The RF Sensor/Switch Transmit a "LEARN Signal" (see Sensor Datasheet)
4. RIoT-MINI HUB confirms the pairing with 3X slow flashes on the Data LED
5. RIoT-MINI HUB returns to normal operation (RED Data LED illuminates constantly).

HINT: For Keyfob Sensors, briefly press the POWER switch

- Repeat this for each RF Sensor/Switch to be Paired
- RIoT-MINIHUB will briefly flash its Data LED when an RF signal is received from a LEARNT RF Sensor/Switch.
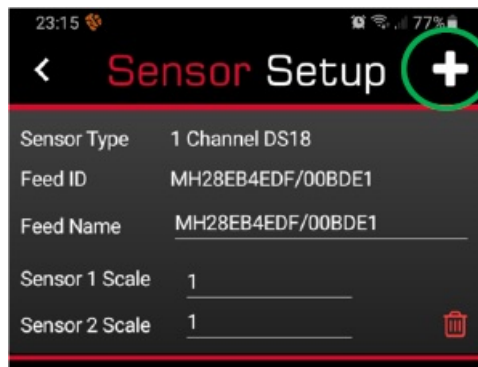- You can verify pairing with this.
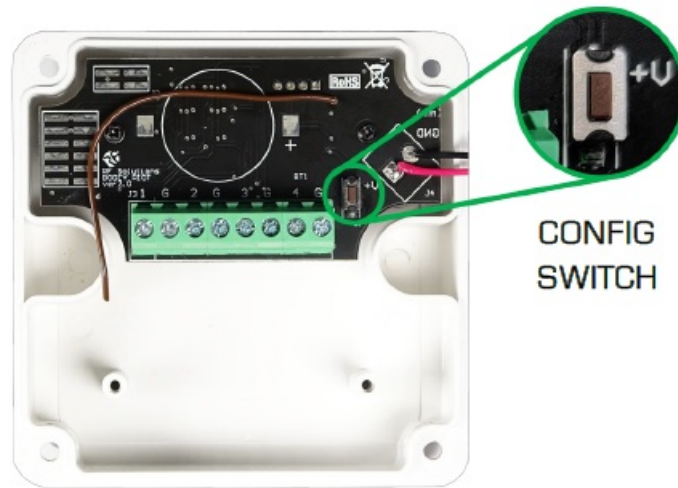
- **HINT:** For WM (Wall mount) Sensor press the config switch once

**Pair an RF Sensor/Switch to your Smart Device**
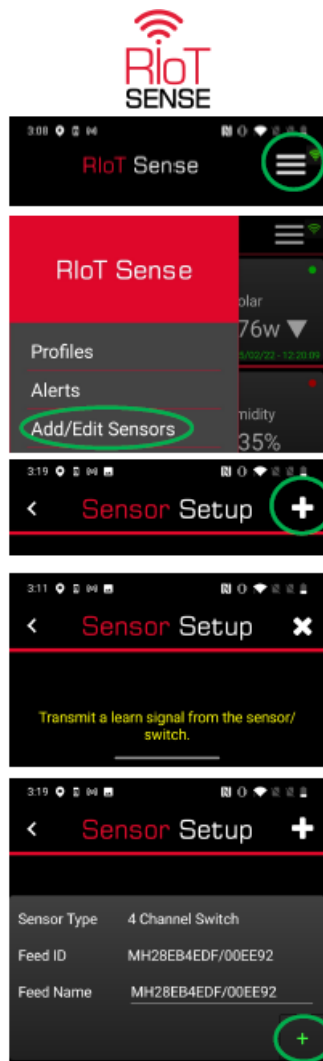
1. On your Smart device, open the SENSE App

2. In home screen, from the menu select "Add/Edit Sensors"

3. In the Sensor Setup screen select "+"

4. On the RF Sensor/Switch Transmit a "LEARN TX signal"

5. RF Sensor ID will appear on the screen.

6. Select the RF Sensor "+" to add this Sensor to the App

7. You can now update the Sensor Feed ID Name, then select '+' to confirm.

Each Sensor/Switch appears on your SMART DEVICE as below:

Updates are sent in real time (indicated by a Green Highlight) If a Sensor is lost, out of range/flat battery, the last valid reading is displayed for 2 hours, before an error message is displayed.
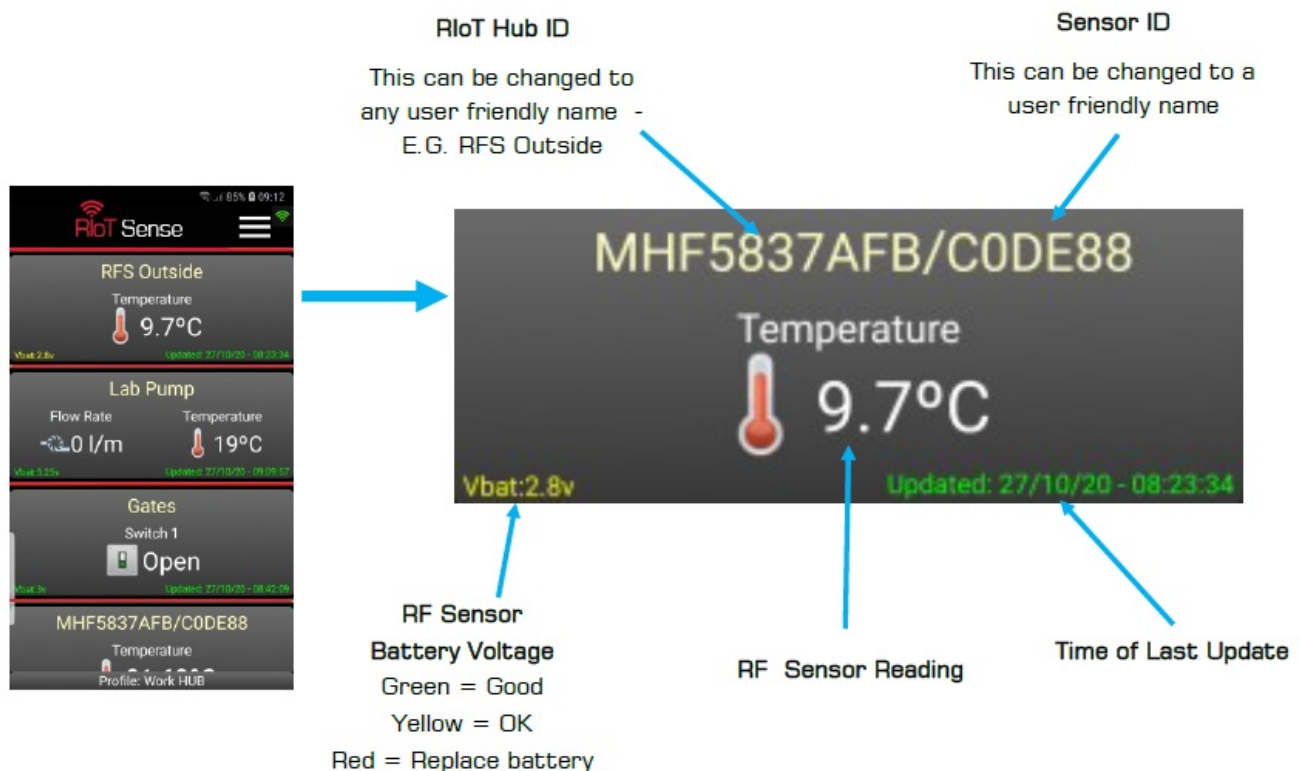

- You can now Reorder, Rename and configure each RF Sensor/Switch.

Additional Optional User Settings

Stage	Description
5	**Configure** an RF Sensor/Switch Transmitter
6	**Direct Control** Local RF Remote Control Relay Switching
7	**Alerts!** Setup Push notifications to your Smart device

Configure an RF Sensor/Switch Transmitter

1. From the home screen select the menu\ on the top RHS then select "Configure Sensor"
2. Put the RF Sensor/Switch Transmitter into Config mode.
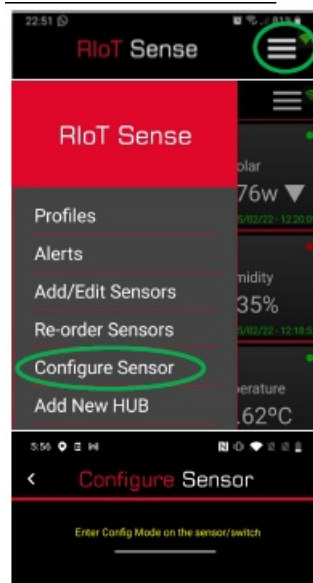
Hint: For Keyfob RF Sensors, press the CONFIG switch until The LED illuminates, For WM (Wall-mount) Sensors, press the CONFIG switch Twice.

1. RF Sensor transmits its current configuration
2. The Sensor configuration will appear on the screen
3. From here, you can configure various parameters for each Sensor/Switch.

Below is an example of the Config Options for a Temperature Sensor

Update Period: The interval time the RF Sensor measures and transmits its data.

Upper / Lower Trigger: The Direct RF Remote Control Signal is sent when the trigger level is reached

Direct Control: An RF Receiver may be deployed locally (within RF Range of the Sensor/switch) providing relay contacts changeover when the Trigger Level is reached

Control Type: Configures the Direct RF Remote Control Signal trigger to operate ON or OFF at the upper or lower level
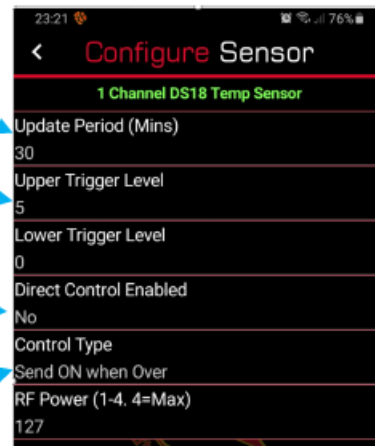
Direct Control Local RF Receiver Relay Switching

This Feature commands the RIoT Sensor/Switch to automatically send an RF Signal to local RF Receiver(s) when a Trigger Level is reached.

Example of Direct Control

SENSORS MINIHUB RECEIVERS

If measuring the temperature in a Greenhouse when the Temperature rises to the Upper trigger level, then Direct Control Signal sends an ON signal to the RF Receiver, which operates its relay (changeover contact) output. This can be used to open a window. When the temperature drops below the Lower Temperature Trigger the OFF signal is sent thus closing the window.

Notes: On Alarm trigger activation, the RF Sensor/Switch Transmitter will send an RF command to any "Paired" RF receiver which will then operate its relay (changeover contact) outputs.

Hint: The RIoT Sensor/Switch must be paired to the RF Receiver. To do this follow the standard Pairing process for the RF Receiver unit (See RF Receiver Datasheet).

Setup an Alert Push notification to your

This Feature sends a Push notification alert message When the Sensor/Switch Alert level is reached.
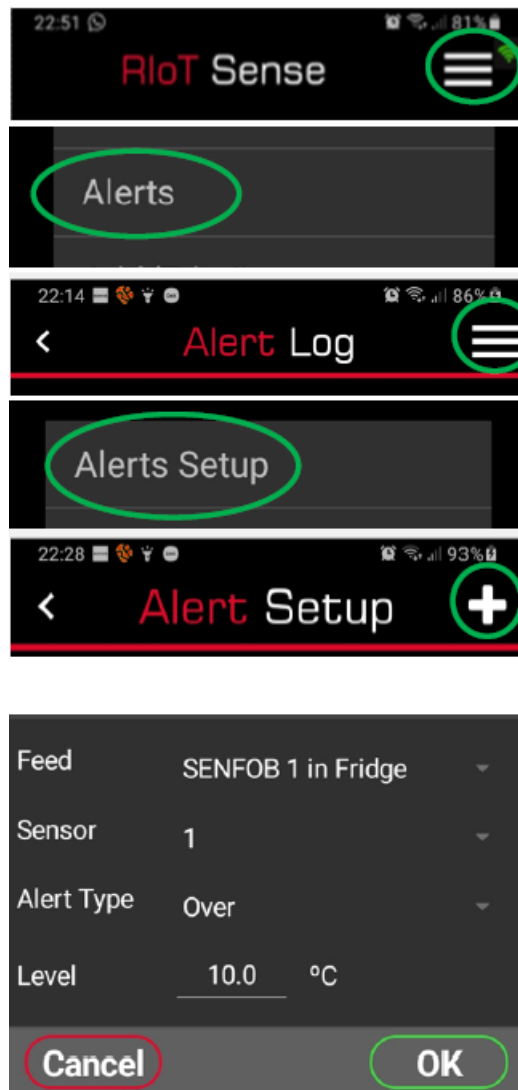
1. From the home screen select the menu on the top RHS then select "Alerts".
2. From The Alert Log Page select the menu on the top RHS then select "Alerts Setup".
3. From The Alert Setup Page select the "+" on the top RHS.
4. The Alert can be Setup according to user requirements.

Simplified Declaration of Conformity (RED)

Hereby, RF Solutions Limited declares that the radio equipment type defined within this document is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.rfsolutions.co.uk**

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Meets the following EC Directives

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- ROHS Directive 2011/65/EU and amendment 2015/863/EU
- Specifies certain limits for hazardous substances.

WEEE Directive 2012/19/EU

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

Waste Batteries and AccumulatorsDirective 2006/66/EC Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point. RF Solutions battery producer number BPRN00060

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Documents / Resources

RF Solutions MINIHUB-1 Configuring a RIoT-Minihub System [pdf] User Guide
MINIHUB-1, Configuring a RIoT-Minihub System, RIoT-Minihub System, MINIHUB-1, RIoT-Minihub

References

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- ✳ **RF Solutions | Remote control systems, RF Modules, Antennas**
- ✳ **RF Solutions | Remote control systems, RF Modules, Antennas**
- 🌐 **rtsintercom.com/**

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