Smart Edge Touchscreen Controller User Manual

In response to market demands and integrating our latest R&D achievements, we are proud to introduce the new generation cloud-edge-device integrated controller — the Smart Edge Controller. This product supports local cabinet control and remote APP control (cloud-based), enabling efficient and flexible seamless management.

The Smart Edge Controller is meticulously designed to ensure stable operation in various complex environments, while adding a modern technological aesthetic to any space.

Durable & Reliable in Harsh Environments

IP66 rating – dust-tight and protected against powerful water jets
V0 flame-retardant materials – safe and reliable for indoor and outdoor applications

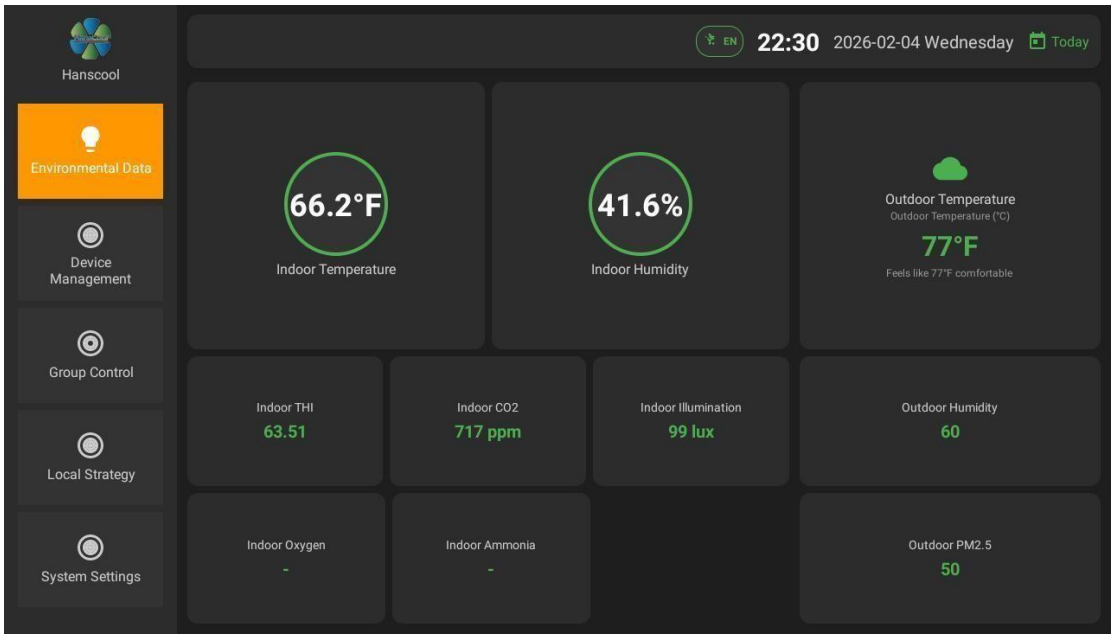
Clear Visibility with Transparent Design

The unique transparent window design, combined with the bracket middle plate, makes device operation status clearly visible — balancing functionality with modern minimalist aesthetics.

Function Modules

1. Environmental Data

The controller seamlessly connects to weather stations and continuously collects and displays key environmental indicators inside the barn, including CO_2, light, temperature, and humidity. All data is shown as intuitive data cards on the system's home page, helping you grasp the barn environment at a glance and providing real-time, accurate data for informed decision-making.



(Figure-1) Environmental Data Interface

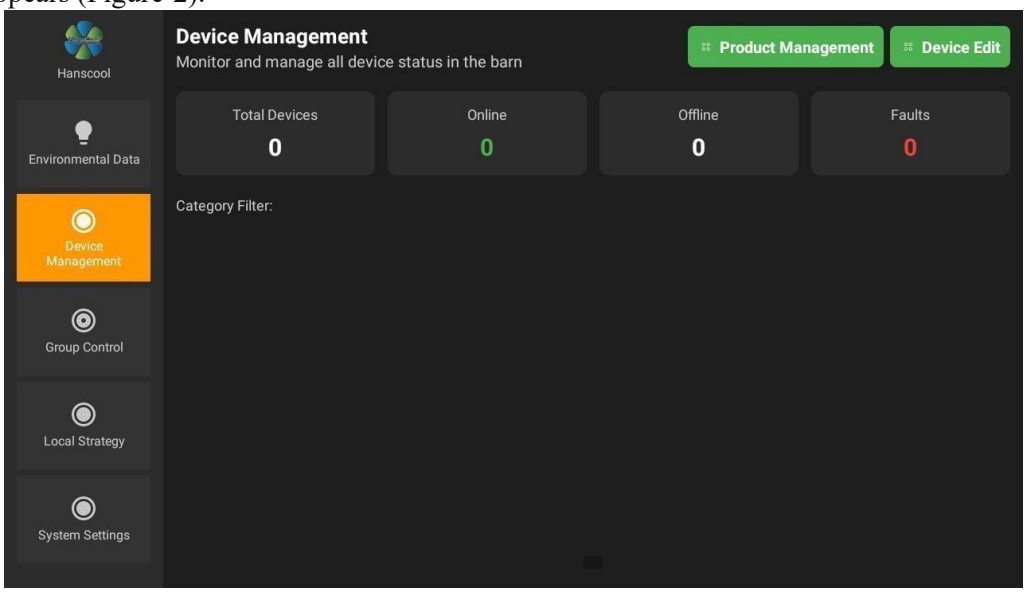
2. Device Management

This module manages all devices connected to the system (using fans as an example). It supports device status monitoring, remote control, parameter adjustment, and automated logic control. Communication is achieved via RS485 signal lines or LoRa wireless modules.

First-Time Setup Guide

2.1 Initial Status Interface

When the device is first started or no devices have been added, the following guide screen appears (Figure-2).



(Figure-2) Device Management Interface

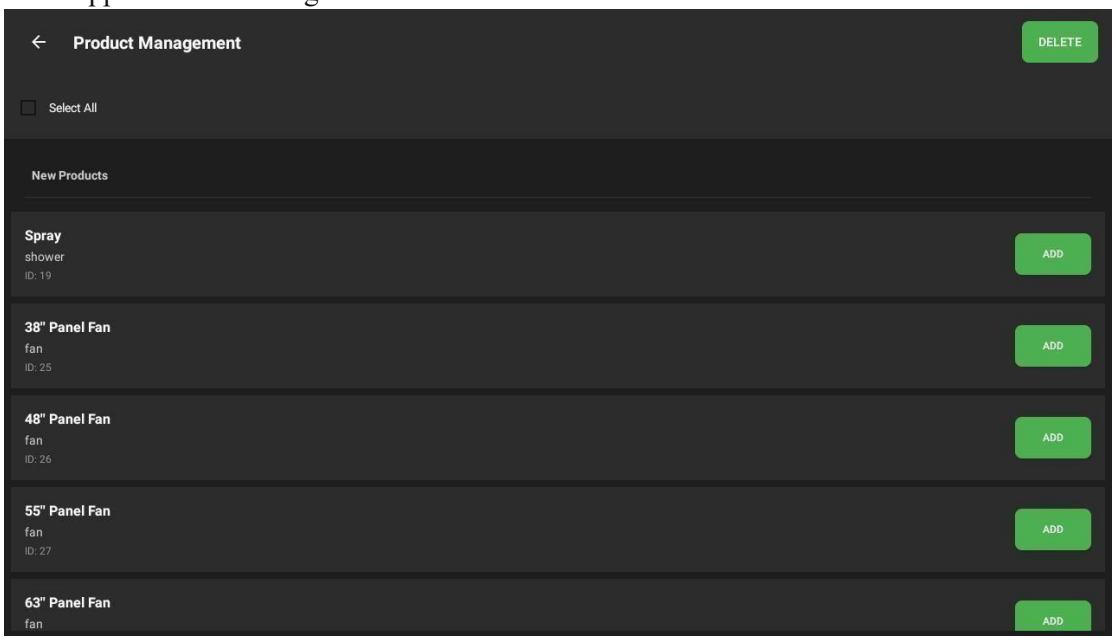
2.2 Network Configuration (Mandatory First Step)

Before adding devices, ensure the controller is connected to the internet and the product type has been successfully added. You can connect via Wi-Fi (swipe down from the top right) or via Ethernet cable inserted into the Ethernet port inside the controller box.

2.3 Add Product

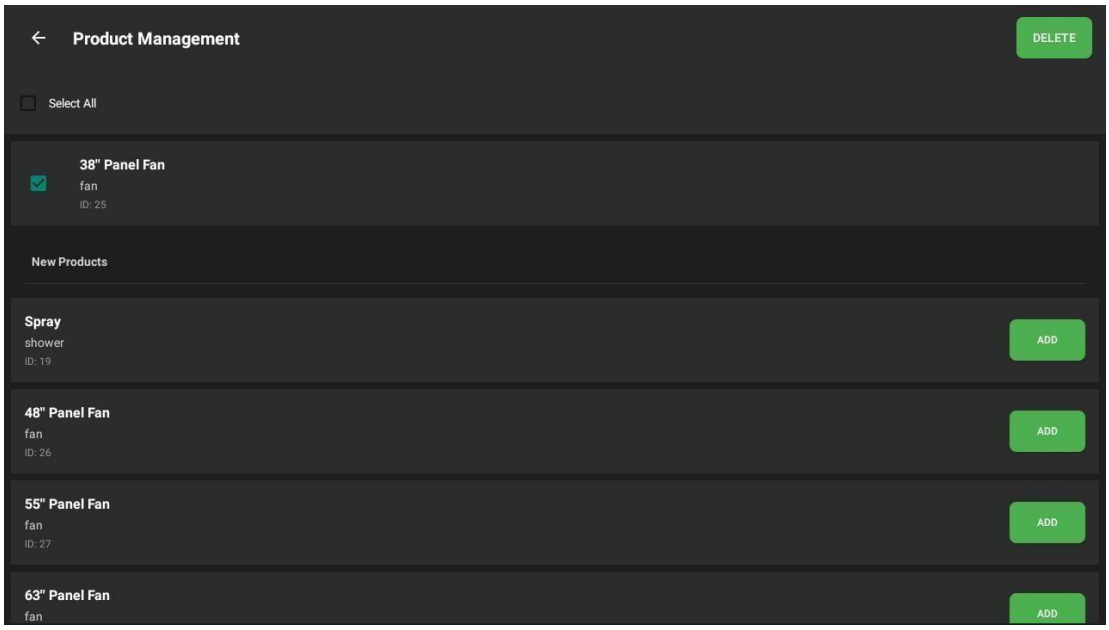
The fan model used in this manual"38" Panel Fan" isand the 7.3m(24ft) ceiling fan model is "ZQ7.3M".
Click the "Product Management" button at the top right of Figure-2 to enter the Product Management page (Figure-3).

Select the desired product from the "New Products" list 38 Panel Fan
(e.g.,) Click the green "ADD" button to add the product type The same process applies to the ceiling fan.



(Figure-3) Product Management Page

After successful addition, the product will appear above the "New Products" list.
To delete a product, select it and click the green "DELETE" button at the top right (Figure-4).



(Figure-4) Delete Added Product

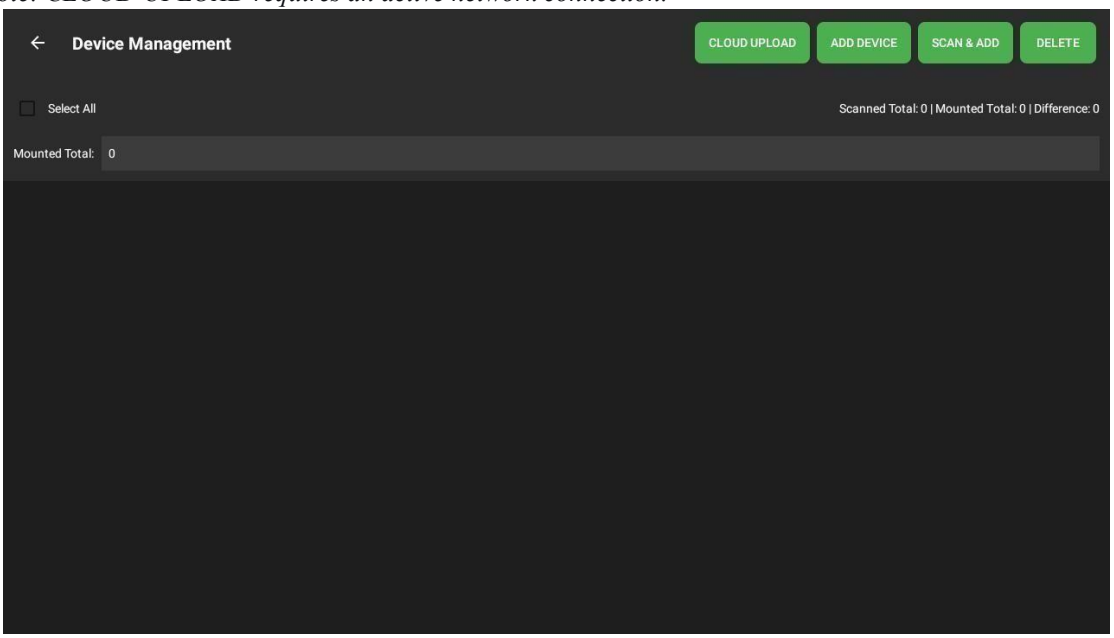
2.4 Add Device

After adding the product, return to the initial interface (Figure-2) and click "Device Edit" at the top right.

The device management page (Figure-5) contains four green buttons:

CLOUD UPLOAD
ADD DEVICE
SCAN & ADD
DELETE

Note: CLOUD UPLOAD requires an active network connection.



(Figure-5) Device Management Page

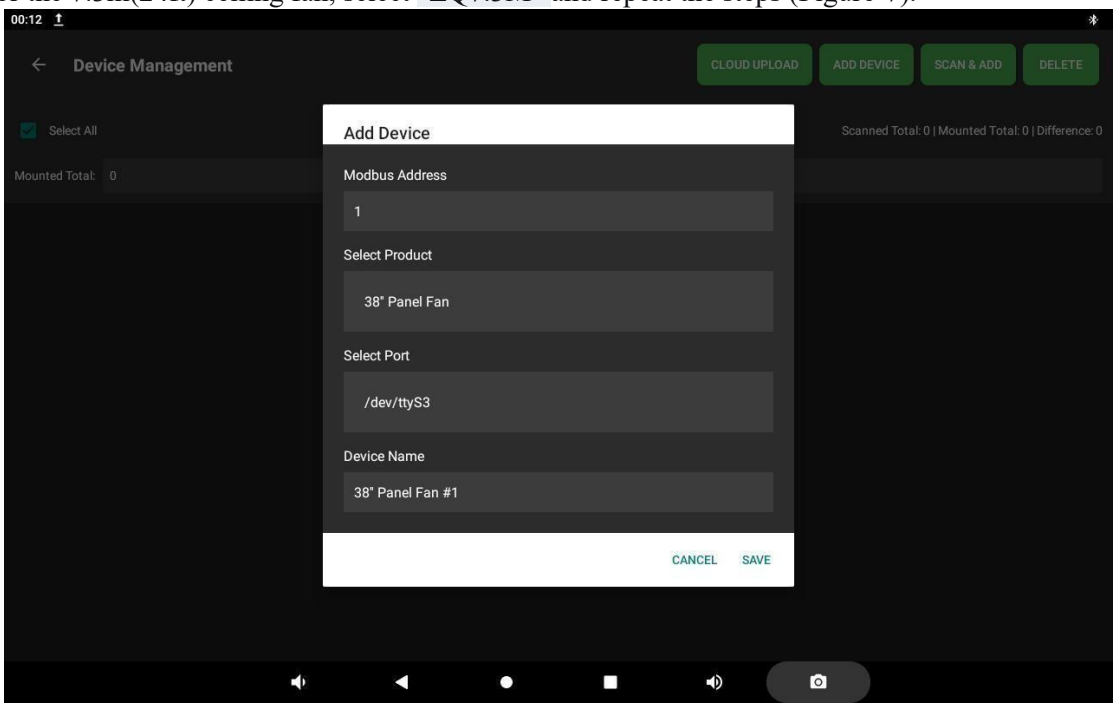
2.4.1 Manual Add

Click "ADD DEVICE" to open the device addition page (Figure-6).

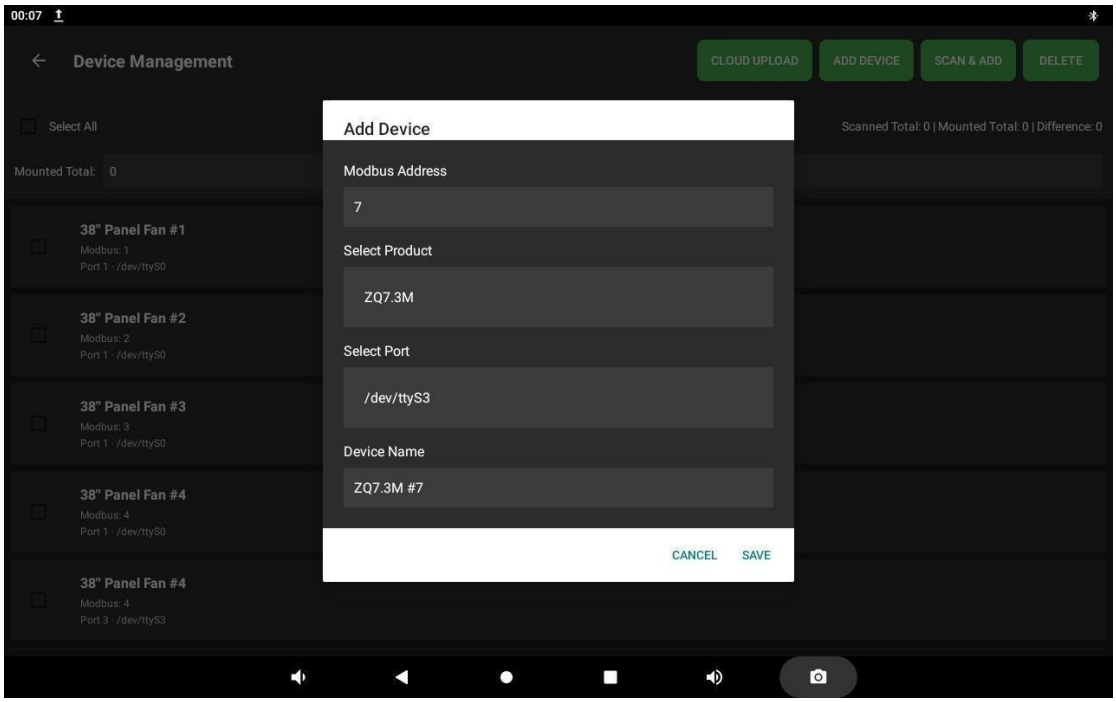
Fill in:

Modbus address
Product type (e.g.,) 38" Panel Fan"
Select Port (based on which port on the back of the screen the device is connected to)
Device name (e.g., location + Modbus address) Click "SAVE" to add the device.

For the 7.3m(24ft) ceiling fan, select "ZQ7.3M" and repeat the steps (Figure-7).

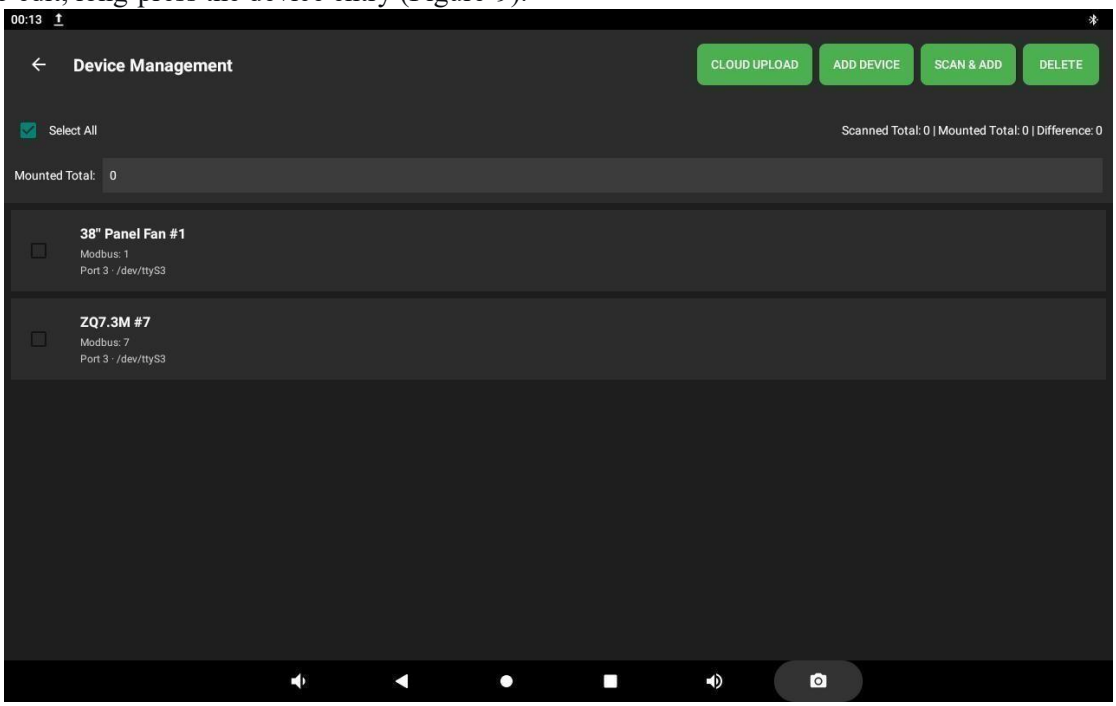


(Figure-6) Manual Add – 38" Panel Fan

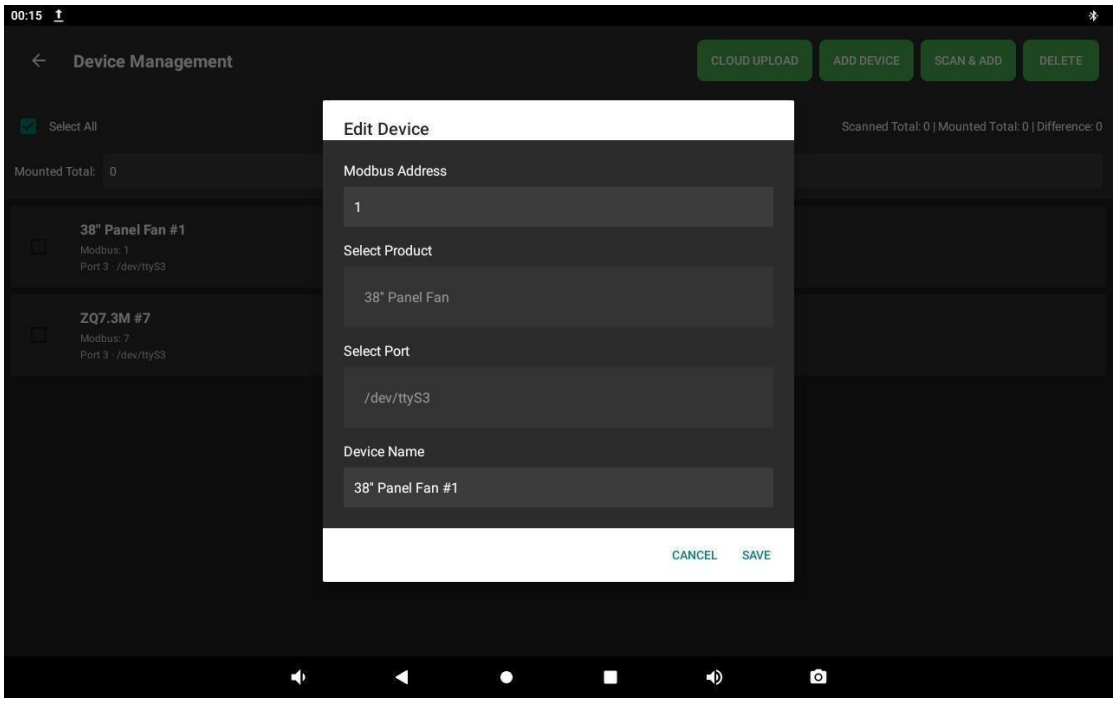


(Figure-7) Manual Add – 7.3m(24ft) Ceiling Fan

After successful addition, the device appears in the device list (Figure-8).
To edit, long-press the device entry (Figure-9).



(Figure-8) Added Device List



(Figure-9) Edit Device Popup

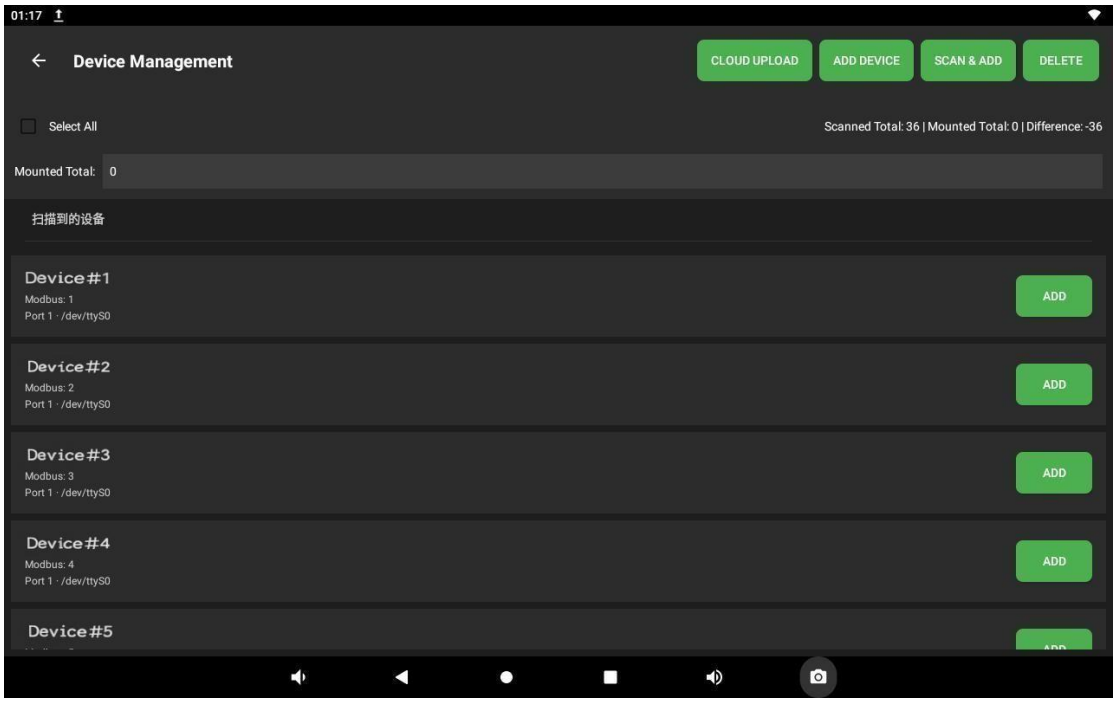
2.4.2 Scan & Add

Click "SCAN & ADD" in the Device Management page (Figure-5).
The system scans Modbus addresses 1–64 (addresses >64 must be added manually).

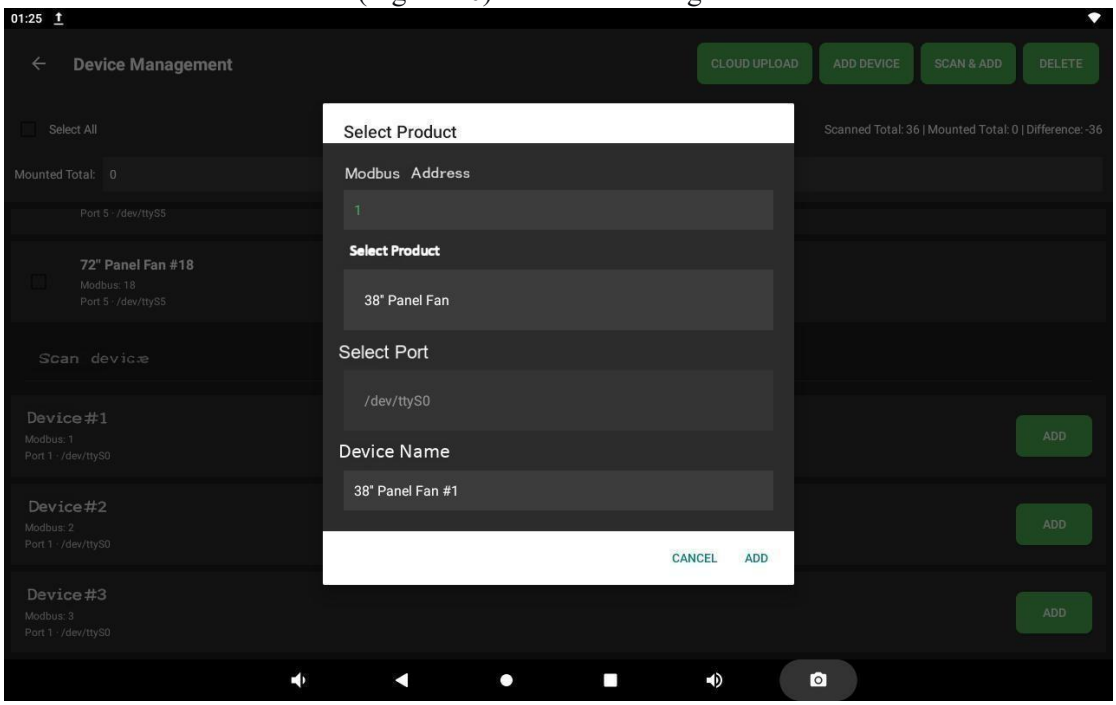
The scan results show:
Scanned Total – number of devices detected
Mounted Total – planned number of devices
Difference – Mounted Total – Scanned Total

Example: If you plan to install 10 fans, enter 10 in Mounted Total.
If the system scans 9 devices, Difference will show 1 — indicating one device may have a duplicate address or is not powered on.

In the scan results page (Figure-10), click "ADD" for each device.
A popup appears (Figure-11) — the Modbus address and port are pre-filled. Select the product type and click "ADD".



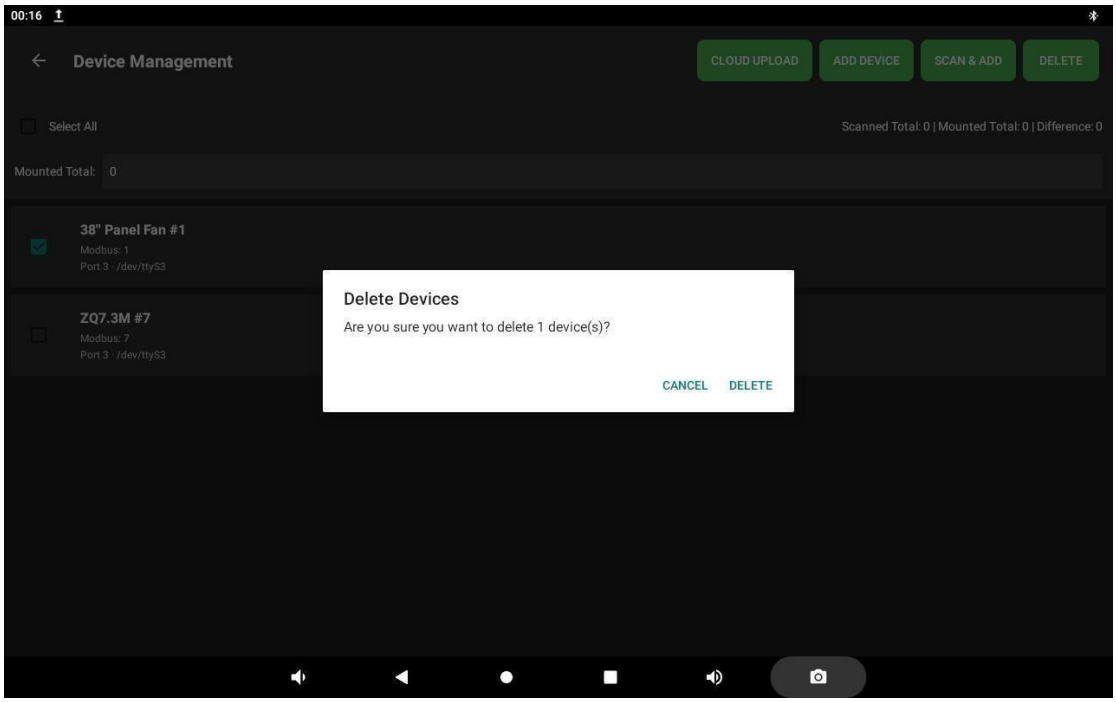
(Figure-10) Scan Results Page



(Figure-11) Add Scanned Device Popup

2.5 Delete Device

Select the device and click the green "DELETE" button.
A confirmation popup appears (Figure-12). Confirm to remove the device.



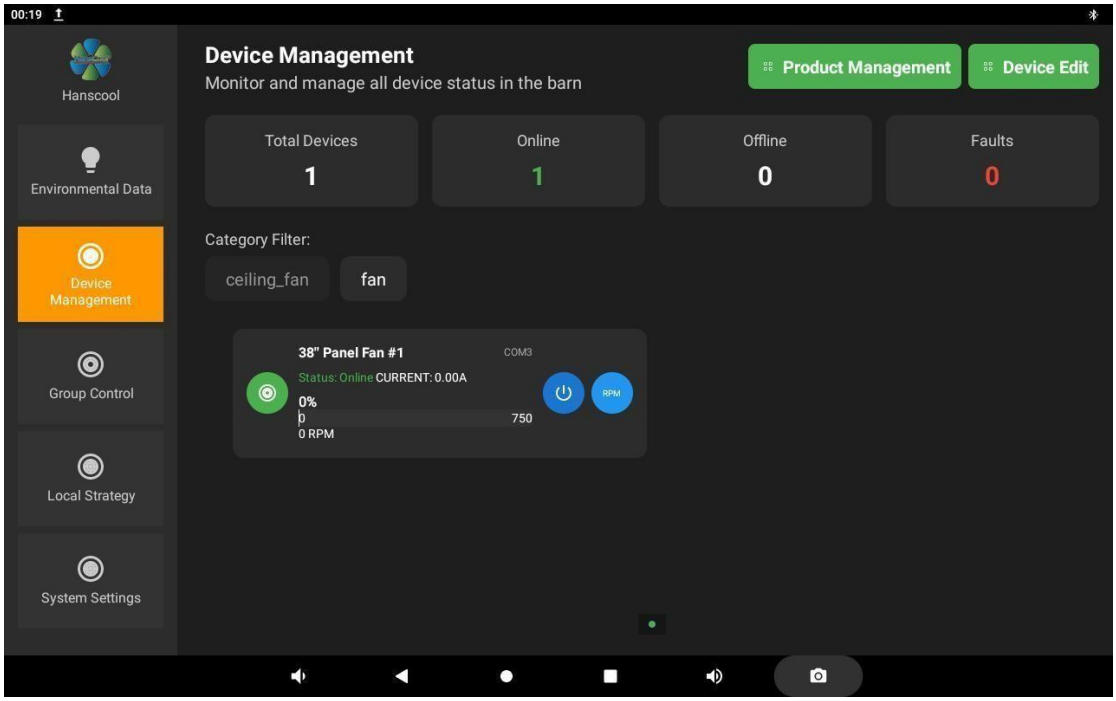
(Figure-12) Delete Device

2.6 Using Devices

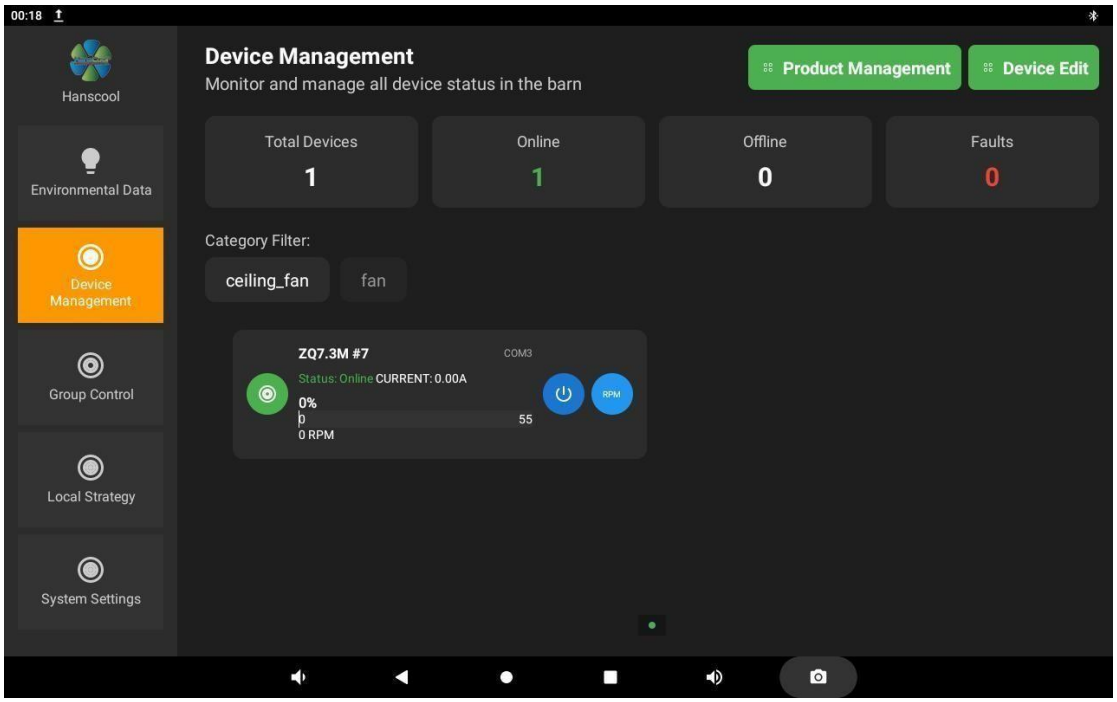
After adding devices, they appear in the Device Management page. Use Category Filter to view devices by type (ceiling_fan / fan).

On/Off: Gray = off, blue = on

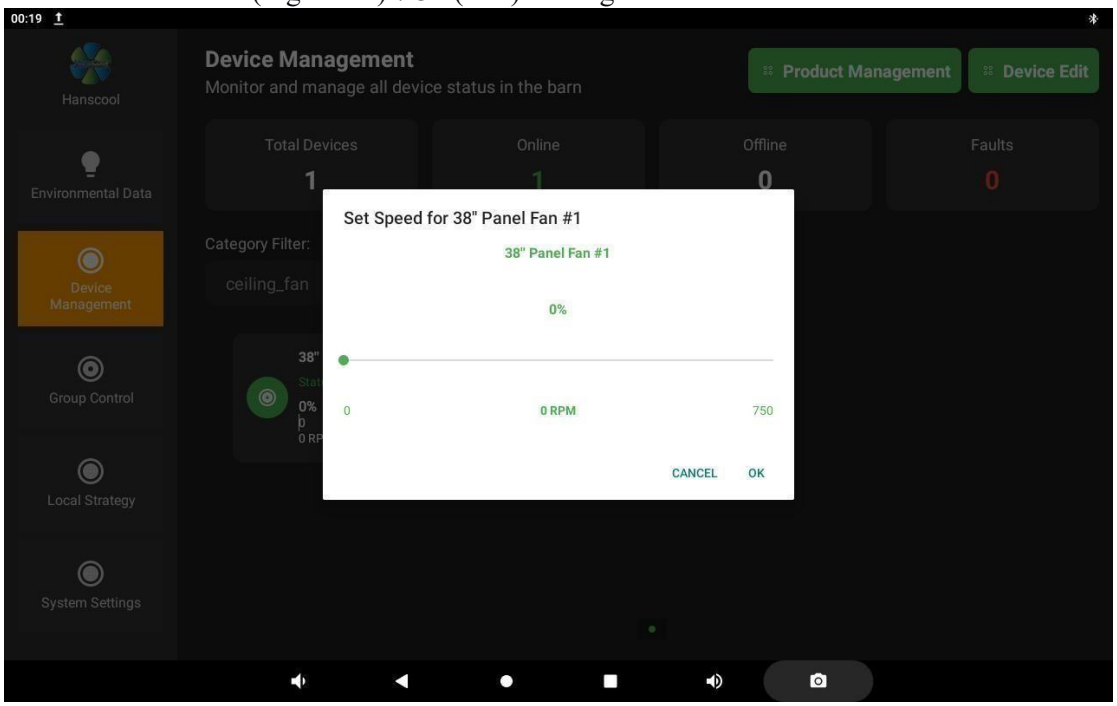
Speed adjustment: Click the "RPM" button to open a slider (minimum 10%; values below 10% default to 10%).



(Figure-13) 38" Panel Fan Device Card



(Figure-14) 7.3m(24ft) Ceiling Fan Device Card

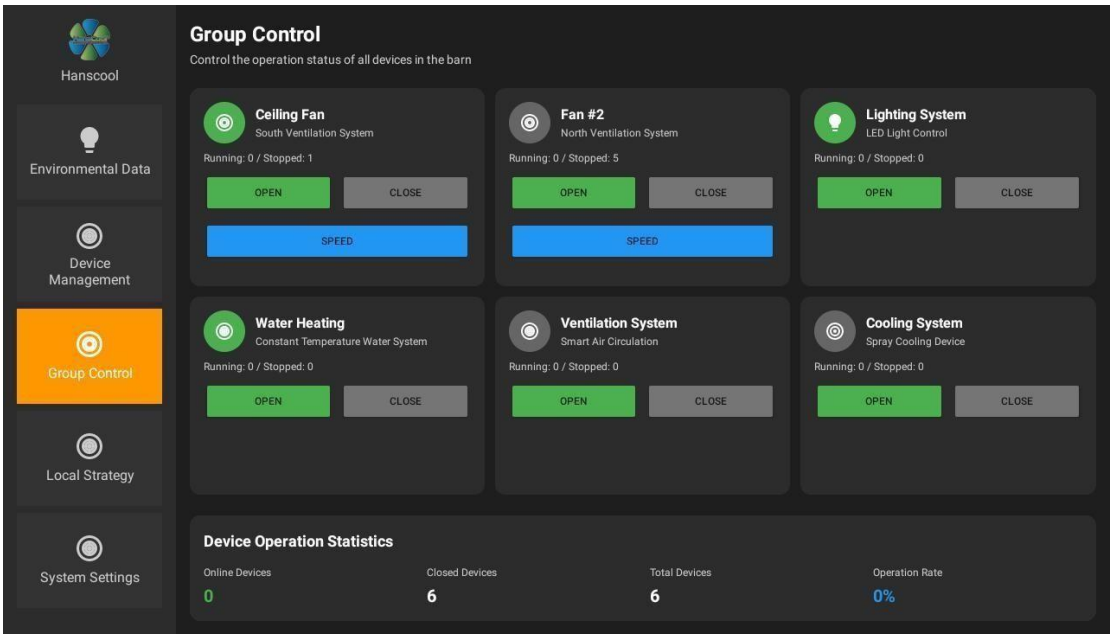


(Figure-15) Fan Speed Adjustment Popup

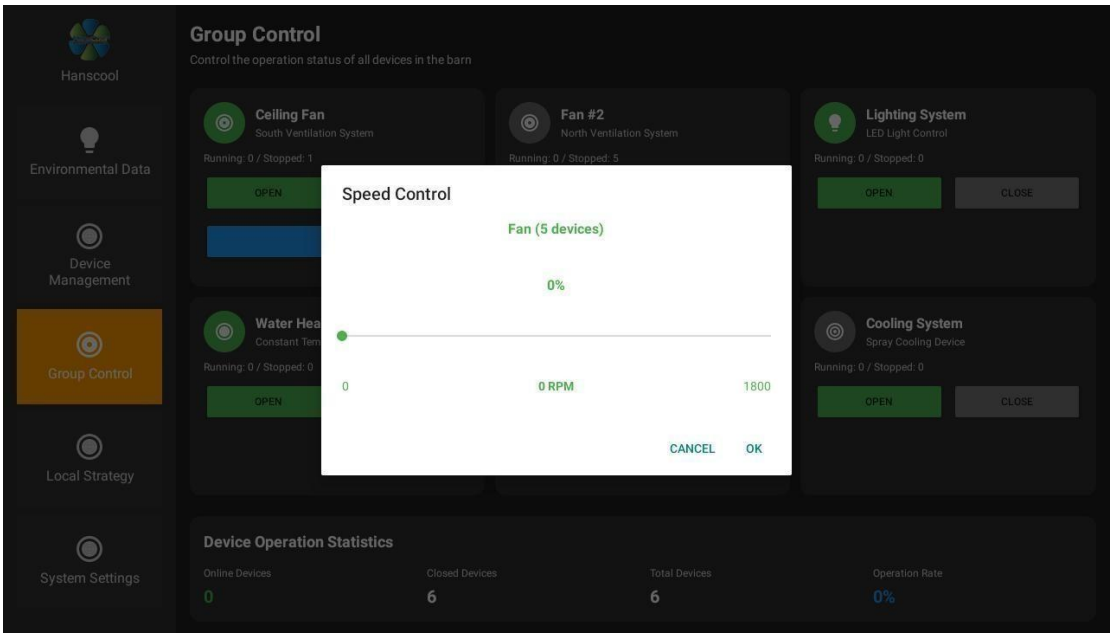
3. Group Control

Group control allows you to abstract devices (fans, ceiling fans, lights, etc.) into independent groups (Figure-16) for centralized control.

OPEN – turns on all devices in the group
CLOSE – turns off all devices in the group
SPEED – adjusts speed for all devices in the group (if supported)



(Figure-16) Group Control Interface

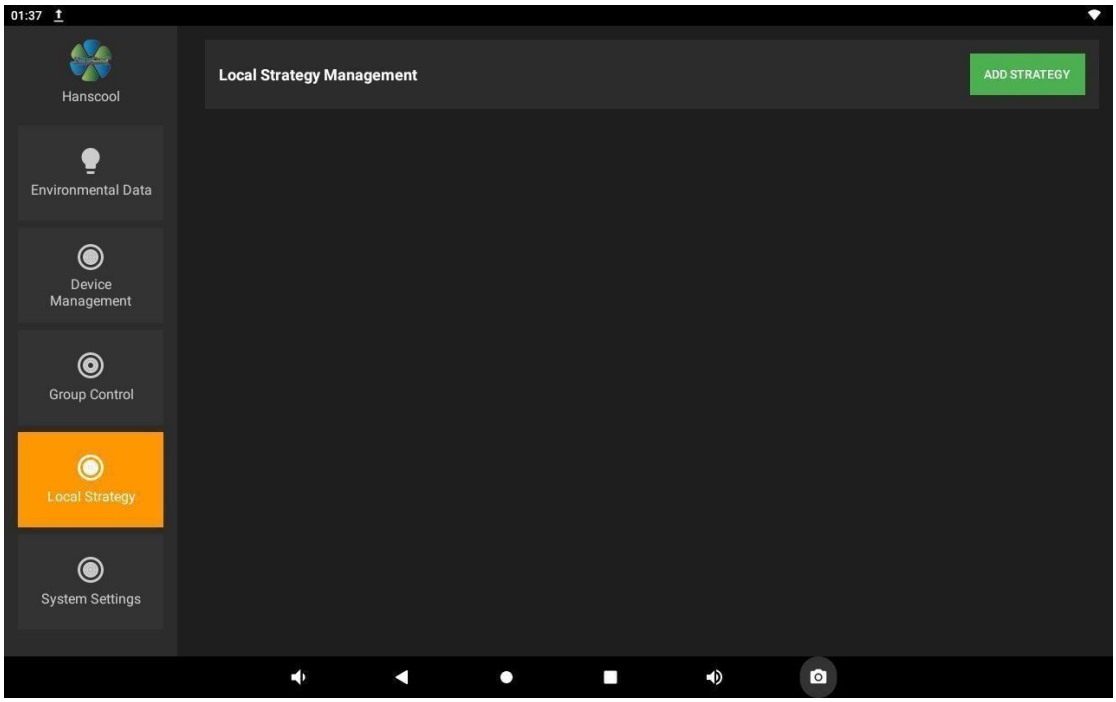


(Figure-17) Fan Group Speed Adjustment Popup

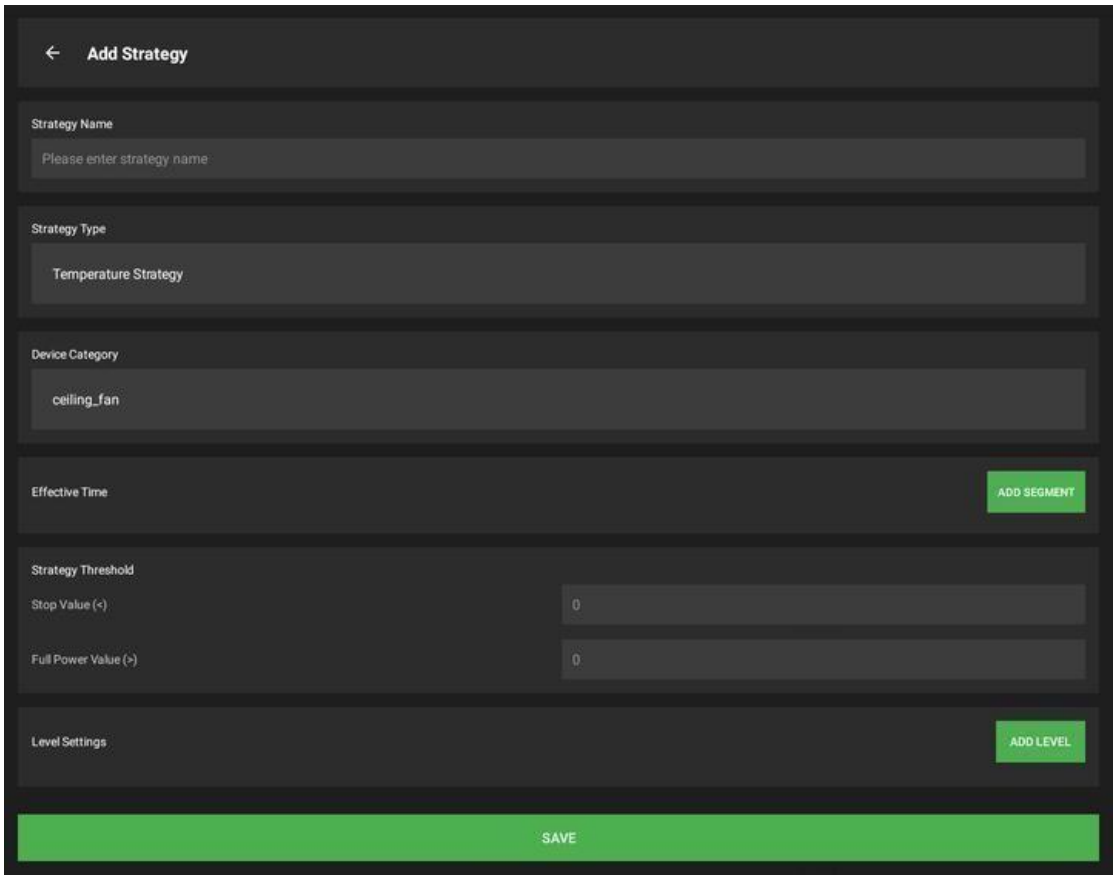
4. Local Strategy

Local strategies allow you to define automated device operation rules.

Click the green "ADD STRATEGY" button at the top right of Figure-18 to enter the strategy creation page (Figure-19).



(Figure-18) Local Strategy Page



(Figure-19) Create Local Strategy Page **Fill**

in:

Strategy Name(Set an easily identifiable name for this strategy.)
Strategy Type (e.g., Temperature Control / THI)

Device Type (Fan / Ceiling Fan.Select the device type controlled by this strategy, and choose either ceiling fan or ventilation fan from the dropdown menu.)

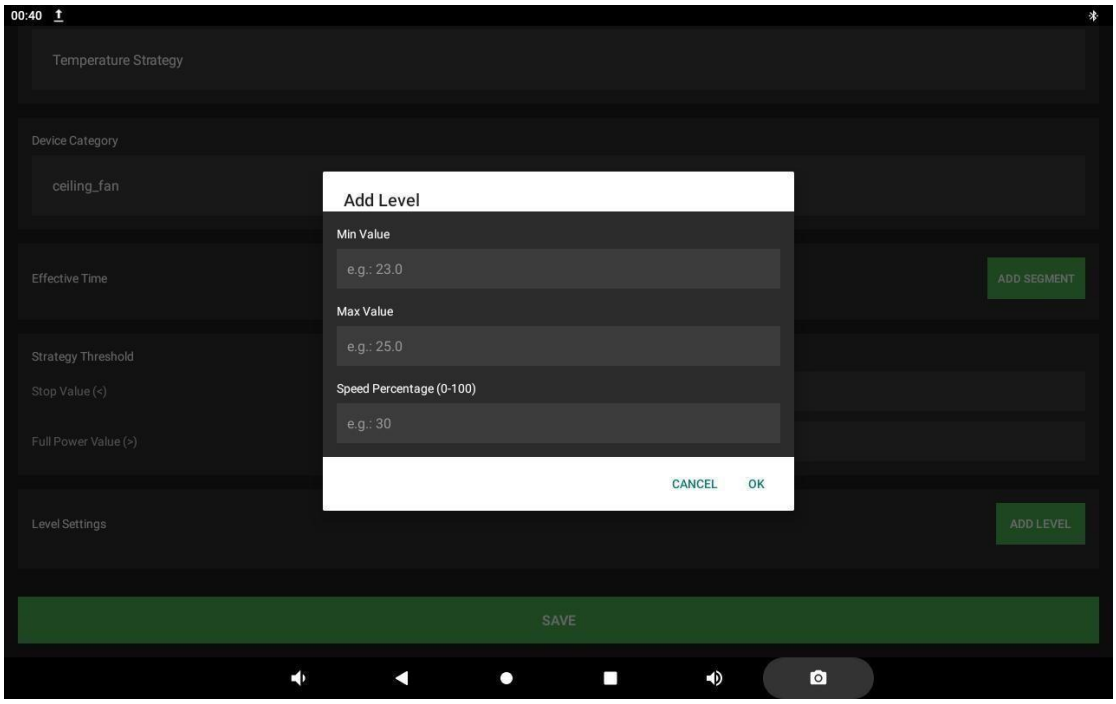
Effective Time (optional, e.g., daily 8:00–19:00) Thresholds (recommended):

Stop Value – below this, strategy stops

Full Power Value – at or above this, device runs at full power

Between the two values, the device runs linearly

Gear Setting (optional) – fixed speed instead of linear,If not set, it will default to linear change(Figure-20).



(Figure-20) Set Local Strategy Action Popup

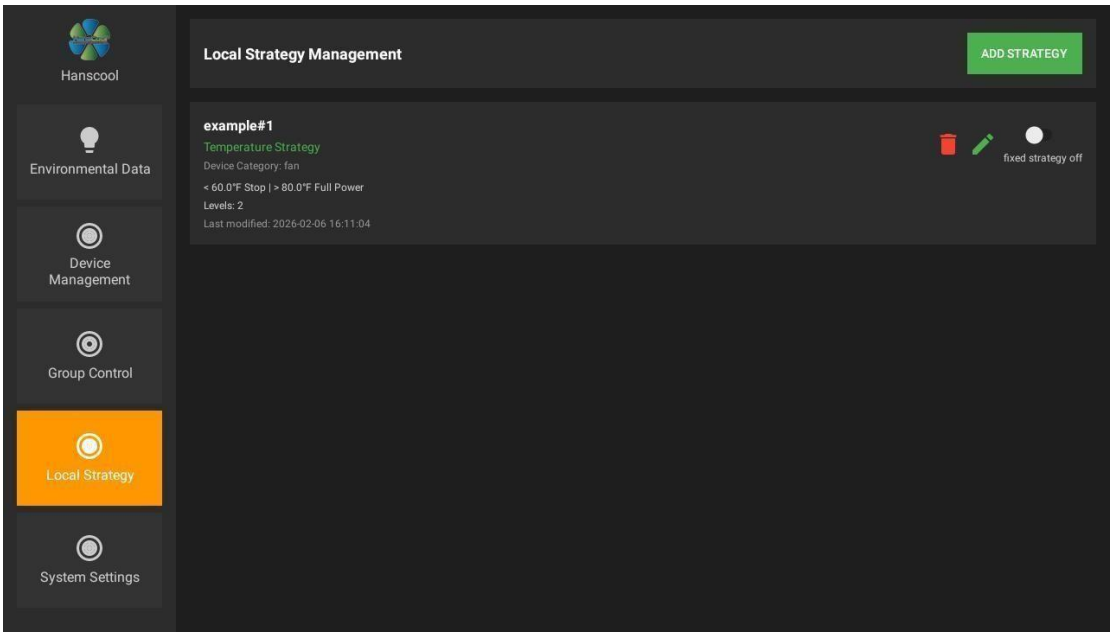
Click Save.

The strategy appears in the list (Figure-21).

Enable/Disable – toggle switch

Edit – middle edit button

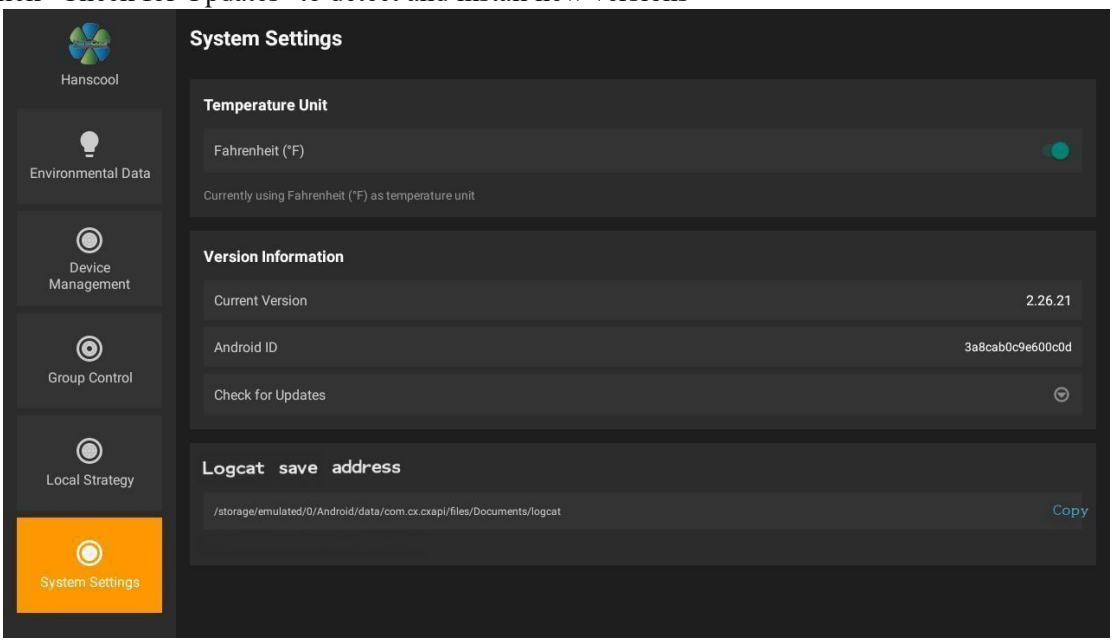
Delete – remove strategy



(Figure-21) Created Local Strategies

5. System Settings

The System Settings page allows you to:
Switch temperature units (°C / °F)
View system info (version, Android ID, etc.)
Click "Check for Updates" to detect and install new versions



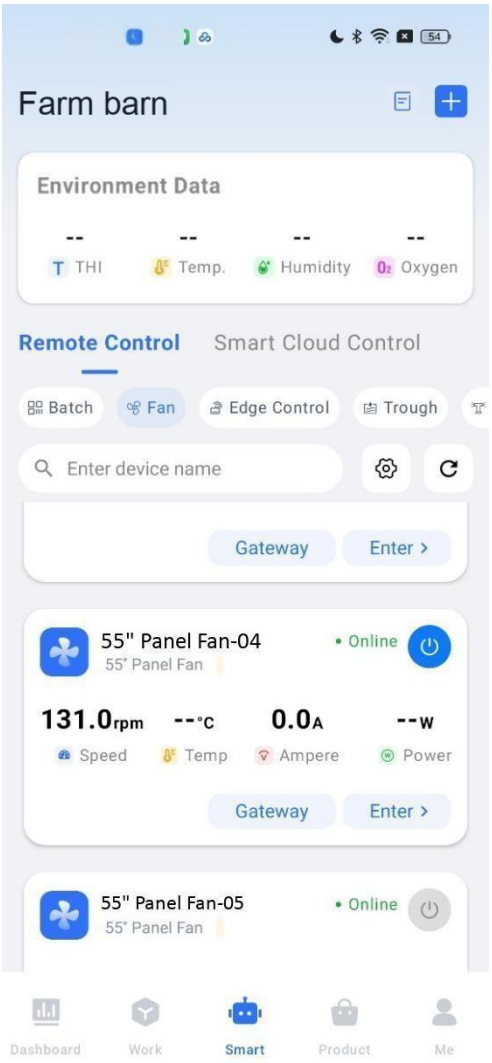
(Figure-22) System Settings Interface

6. Cloud-Edge-Device Sync (Optional)

Our technical team can add your devices to the cloud system (Android ID required). Customers can then use the Moonet App (Android version 5.0 shown here) to control fans (on/off, speed, auto mode).

When the Smart Edge Controller is online, device statuses sync with the MooNet App (Figure23).

Turning on a device on the edge controller updates the same device in the APP
Turning off a device in the APP updates the edge controller accordingly *Note:It is recommended to mainly view.*



(Figure-23) MooNet 5.0 Android – Fan Device Interface