

Remote AI Temperature Screening System

SKU: 114992189

The Remote AI Temperature Screening System is designed to provide non-contact forehead temperature inspection. The system is optimized to work accurately with a margin of error within 0.5 degrees Celsius even in situations where the persons to be tested wearing masks, as long as they are standing in front of the system within 3 meters of range.

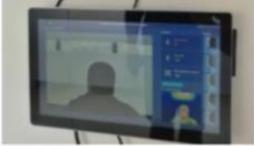
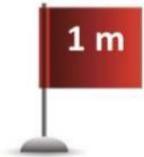
This system is perfect for populated locations where rapid temperature inspection is needed, especially in the situation of containing the COVID-19 pandemic where people need to wear masks while measuring the temperature.

The system is equipped with a facial recognition feature. As long as the facial information is in the database, the system can recognize faces and measure forehead temperature at the same time. The temperature inspection accuracy doesn't get affected even when the person wears a mask.

Key Features

- Non-contact, remote forehead temperature inspection & facial recognition
- Multi-point temperature data collection to ensure accuracy
- Face detection to collect temperature data on faces and forehead only, avoiding interference from surrounding environments
- Accurate temperature inspection even with masks on
- Simultaneously monitoring the temperature of many people
- Acute face recognition of people who are in the database
- Play & play: Work right after the device is connected to the power and a display, no extra configuration needed
- Alarm setting enabled: preset the lowest and highest temperature value, and when abnormal values are detected, the system will send out alarms

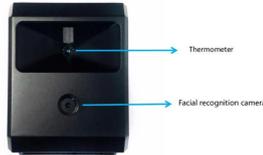
Notes

Item	Description	
	Avoid sunlight	
	Avoid strong back-lighting <small>(screen is not included)</small>	
	Avoid using in the environment below 15 °C	
	no cap, do NOT cover forehead	
	Stand and face the detector 1 meter away	
 2 min	Wait minimum 2 minutes to warm up the devices before starting test if devices are moved from outdoor to indoor	
 20 min	Wait minimum 20 minutes to adapt to room temperature before testing	
 5 min	Wait minimum 5 minutes for system initialization and self calibration in case power up	



Specifications

- AI Detector



Temperature Inspection	
Thermal Camera Resolution	220 x 160
Measurement Range	32°C~42°C
Accuracy	≤±0.5°C
Temperature Correction	real-time auto-correction with built-in blackbody
Measuring Duration	< 1 second
Measurement Distance	< 3 meters (optimal range: 1~1.5m)
Imaging	
Image Sensor	SONY 1080P IMX327
Resolution	1920 x 1080
Focal Length	8mm
Interface	
Interface to the Terminal	USB + RJ45 (built-in power supply)
Interface to external parts	RJ45, WIFI, HDMI
Environment	
Working Temperature	10~45°C, (optimal temperature range: 15~37°C)
Storage Temperature	-20~60°C
Working Humidity	< 90% (Non-condensing)
Face Recognition	Local database
Recognition Mode	<ul style="list-style-type: none"> ● Face Recognition: face temperature check + recognition faces that are pre-registered in the local database. ● Non-Recognition: check face temperature, no face recognition. ● Mask Mode: Only check forehead temperature. ● Temperature Check: check an individual or many people simultaneously
Measurement Distance	<3 meters
Recognition Angle	Front face
Database Storage	10,000 faces



- Smart Terminal

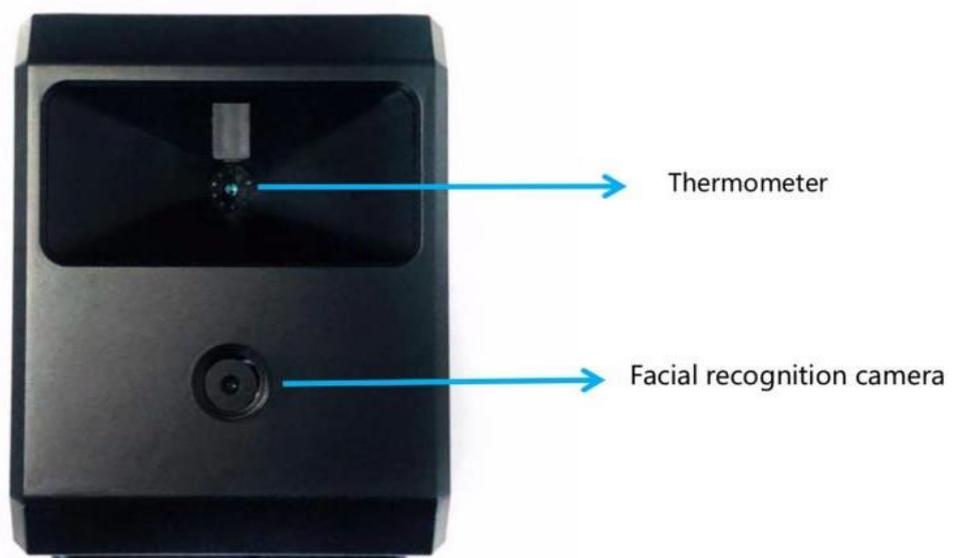
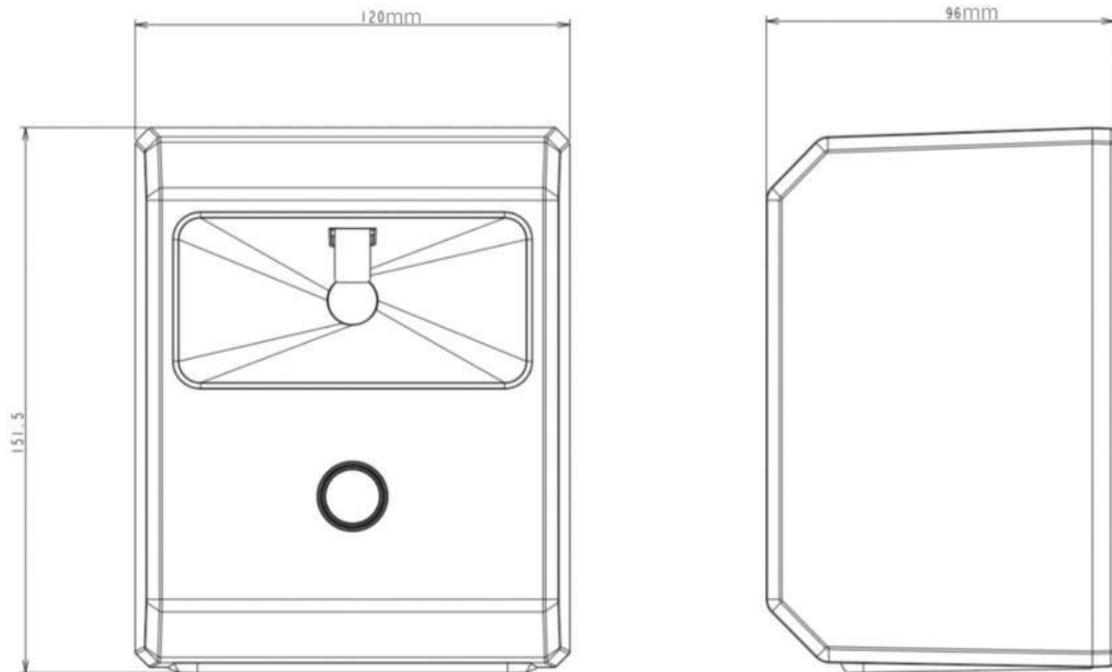


Hardware Specifications	
Language	Chinese, English (customizable, with MOQ required)
Processor	RK3399, 6-core; dual-core A72+ quad-core A53, 1.8GHz
Memory	DDR3 4GB
Storage	EMMC 16G
HDMI Output	1, support 4K/1080P
Camera	N/A
Storage Slot	1, TF card slot
Audio Jack	1, AUDIO
Mic-phone	N/A
USB Port	USB 2.0 *1, USB3.0 *1, USB Type C *1
Network	2.4G WiFi
	10/100/1000M Ethernet
Video Format	wmv, avi, flv, rm, rmvb, mpeg, ts, mp4
Decode Compatibility	Support 1080P, 4K, H.265
Audio Format	MP3
Image Format	Support BMP, JPEG, PNG, GIF
Power Adaptor	DC12V/2A
RTC	Y
Timer	Y
Power-on Method	Connect to power source and power on
Operating System	Android 8.1
User Interface	Android by default
System Management	APK Installer
	System setting
	Global time
System Upgrade	Support TF card / USB
Input Method	Standard Android keyboard supports 3 rd -party input methods
App Software	Built-in Android software

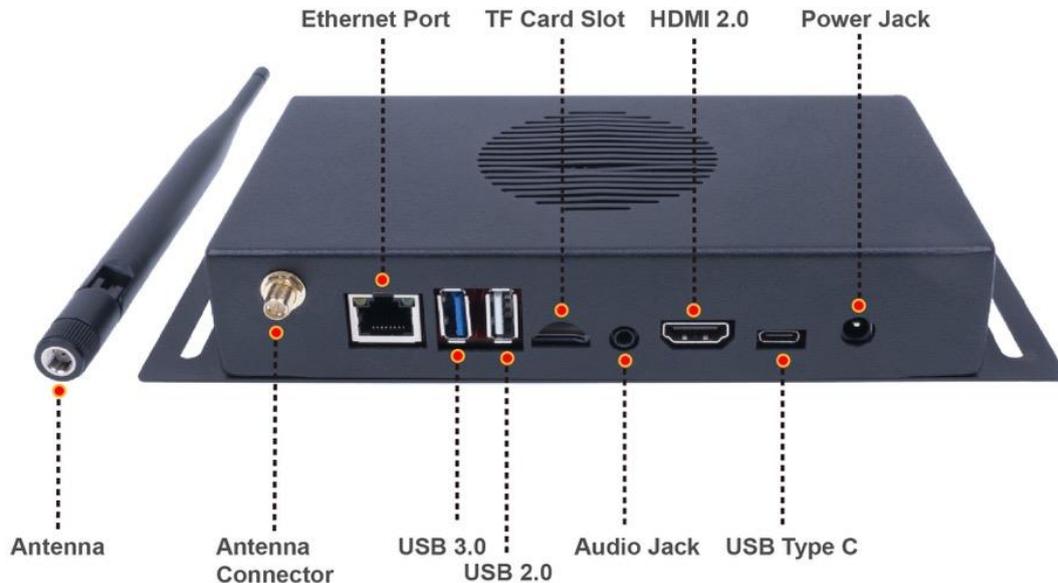


Hardware Overview

The AI Detector is equipped with a thermal imaging camera and a facial recognition camera. The pictures below show its dimension and interface.



The terminal includes the CPU and AI algorithms. The picture below shows its interface.



Software Features

Front-end Application Software

- Face detection and recognition
- Temperature screening
- Abnormality alert
- Data display
- API available to be connected to a third-party data platform

Back-end software

- Personnel management
- Temperature collection and algorithm
- Abnormality alert setting
- Attendance management
- Device management
- Location management of multiple devices



Part List

- AI detector x 1
- Terminal x 1
- Power adapter x 2
- USB cable x 1

Description	Photo
Smart Terminal	
AI Detector	
Power-over-Ethernet Adapter	
Power Adapter 12V	
<ol style="list-style-type: none"> 1. Connect Power-over-Ethernet Adapter 2. Connect 12V Power Adapter 3. Connect AI Detector' s RJ45 network port 4. Connect AI Detector' s USB port 5. Connect mouse 6. Connect the monitor with an HDMI cable 7. Connect 12V Power Adapter 	
Connection succeeded	

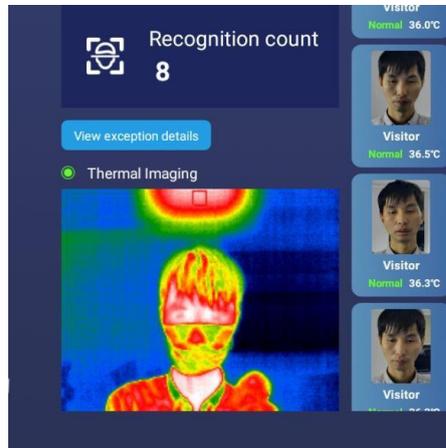


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Applications

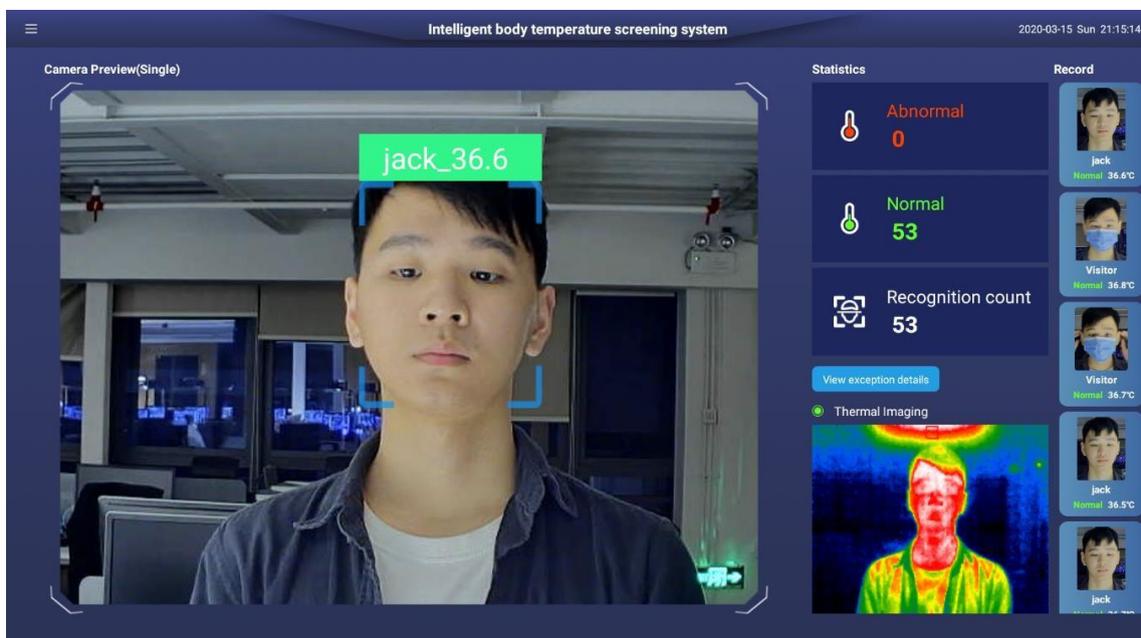
This system can be widely used in locations such as hospitals, airports, subway stations, train stations, exits & entrances of industrial parks and shopping malls, offices, and schools, etc.



(Built-in black-body real-time calibration)

Test pictures

Recognize faces and measure temperature



Face recognition and temperature measurement (in mask mode)



NOTE: The system can precisely locate and recognize human faces and foreheads for temperature inspection, and it will NOT be affected by ambient temperature such as lighters, cigarettes, and hot /iced coffee etc.

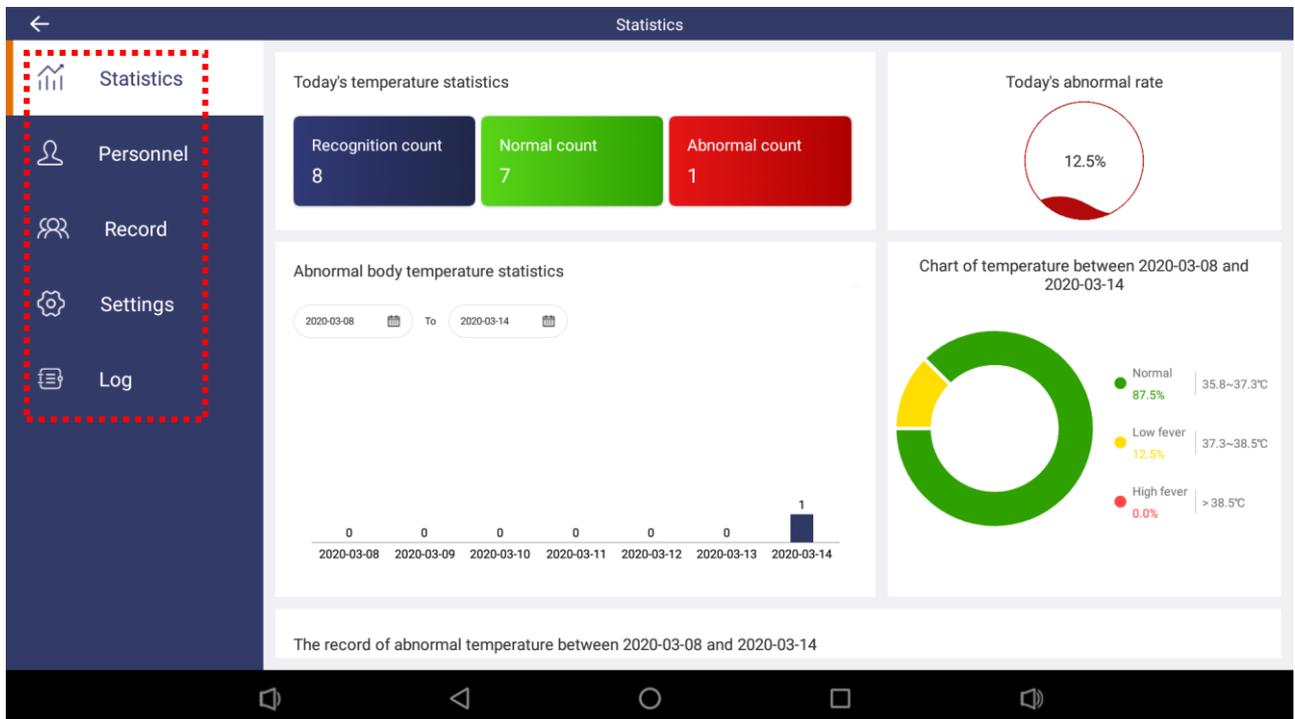
Set-ups

1. Menu: Click the "≡" button to enter the function menu interface





2. Statistics: View statistics for the day or days, normal, abnormal temperature



3. Personnel: Register, query, edit and delete personnel

1) Enter the name, query the personnel's temperature.

2) Click "≡" to add, batch import or batch delete personnel.

3) Note: The server version registers personnel through the server.

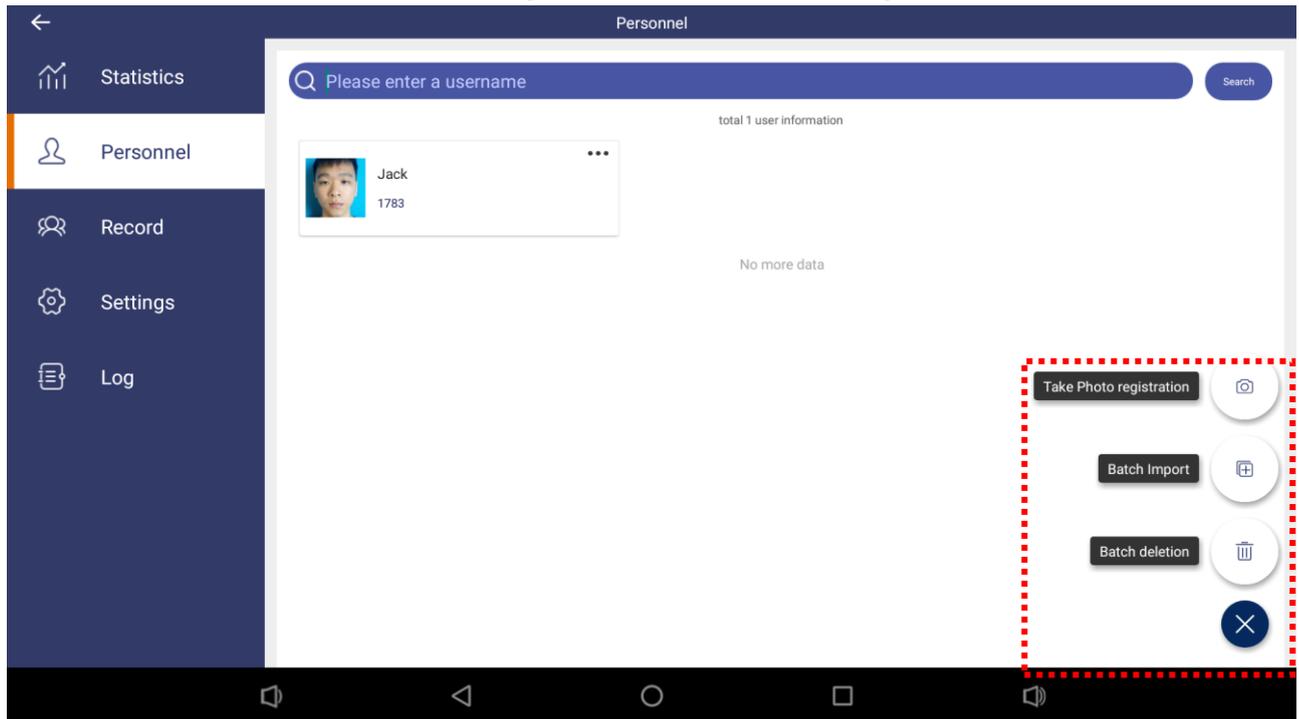
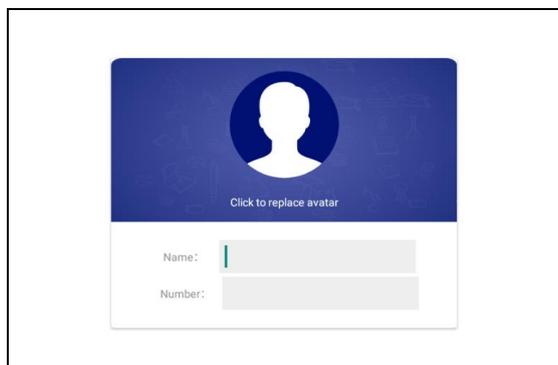
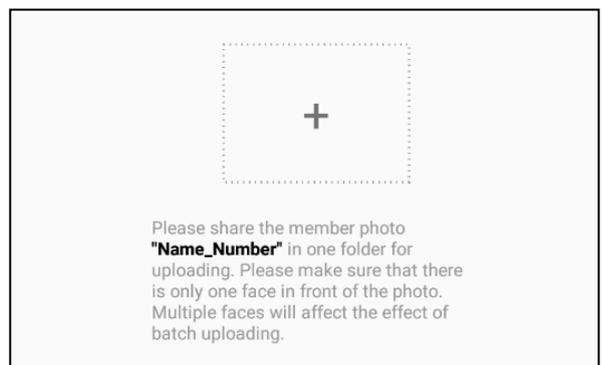


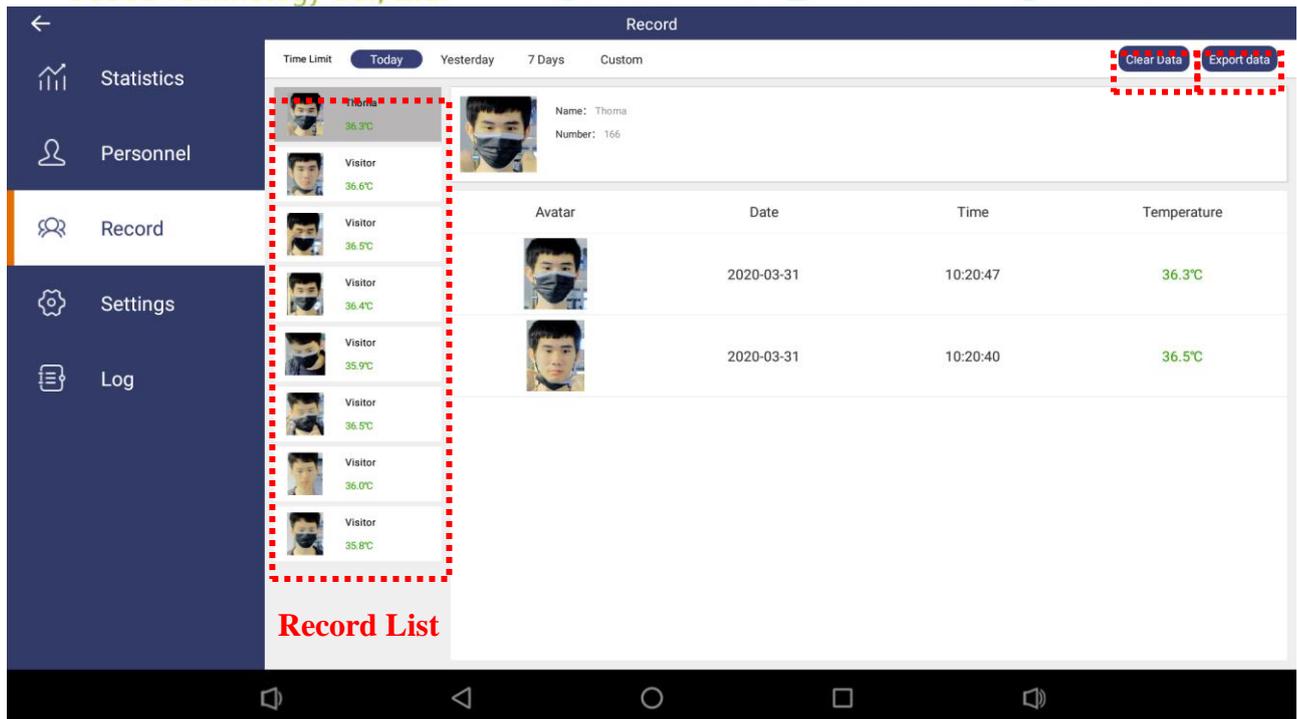
Photo Registration



Batch Import



- Photo registration: Take a photo or choose an image to register
 - Batch Import: Upload a folder with member photos named as "Name_Number".
 - Batch Deletion: Select the personnel to be deleted and click Delete.
4. Record: Select time to view historical temperatures, export the data or clear data.



5. Other Settings

- Recognition mode: you can choose single or multiple mode.
- Device information: You can view the device information and check for update.
- Online authorization: The device has been authorized; it shows "authorized".
- Advance: If the temperature deviation is too large due to environmental influences, please calibration under the guidance of a technician.

6. Log: If the system fails, please upload the logs and contact tech support.

FAQs

Q: Will a warranty be provided for this product? How can the customer claim the warranty?

A: Yes, the warranty is 12 months. You can contact Seeed directly via this email: [iot\[at\]seeed\[dot\]cc](mailto:iot@seeed.cc)

Q: Will a power supply with UK/SG Power Plug be provided with the product?

A: I am afraid the products only come with standard Chinese power plugs. But we will provide an adaptor.

Q: What is the maximum number of faces the system can recognize?

A: The database can support storing up to 100,000 records. When the number surpasses this amount, it will follow FIFO (first in first out) method to erase 1000 records each cycle.

Q: How many faces can be detected at the same time?

A: No limit, as long as the faces are in the range (1~3meters) and can be captured by the camera.

Q: Is the product standalone or must it be connected to the manufacturer's servers?

A: It's standalone.

Q: How much storage is available on the unit itself? And is there any way to expand the memory of the unit such as thru an external hard disk?

A: The device storage is 20G, among which, 4G is the system, with 16G left for storage. The TF card slot is reserved for future use.

Q: Does the product come with a display?

A: No. It can work with any display via an HDMI cable.

Q: What is the lead time required for this product? An estimate on delivery time will be good.

A: For 1pcs, we will be able to ship out the products within 5 working days. However, if you need larger quantities, please contact us for the lead time.



Q: What certifications does this product have?

A: In the process of getting FCC and CE certification.

Q: Is this product a medical-grade product?

A: No, it's not a medical-grade product. It's a high-end, non-medical temperature inspection product, for non-contact temperature screening in populous areas, especially during the pandemic outbreak.

Q: Is there an audio alarm when a fever is detected?

Yes, there are built-in audio messages, including the followings:

- Visitor temperature normal
- Visitor temperature high
- XX temperature normal
- XX temperature high

(XX is the name of the person whose face has been registered into the system).

Q: I'd like to use this in a location without entering any people to the database, is that possible?

A: Yes, it's possible. And the system will regard everyone who takes the temperature check as visitors.

Q: Is it possible to use the system without photographs being exposed?

A: Sorry it's not possible to use the system without photographs being exposed. The system uses the camera to detect faces and get the temperature inspection on the face & forehead. If without the photograph, the device couldn't locate the face & forehead to take temperature inspection.

Q: If someone came in directly after exercising (running, cycling, hot summer day) would this device detect a high-temperature value?

A: Yes, it will lead to a high-temperature value. We'd suggest taking a rest and wait for the temperature to drop back to normal, and then take the temperature inspection.

