JKT JIA KANG Intelligent Technology CORP.

JKT-IQS SYSTEM

Intelligent Temperature Quick Sieving System

User's Manual

Model number

JKT-368

Content

Introduction

How to use

Other

Product Specification

Thermal imager

Detector type	Vanadium Oxide Micro bolometer
Resolution	206 x 156
Pixel pitch	12um
Wavelength range	7.5-14um
Rate	9Hz
IR Lens	Chalcogenide
IR FOV	36 Degree FOV

Blackbody

Working temperature	0~ 60℃
Radiation surface	100mm x 100mm
Temperature resolution	0.1℃
Accuracy	±0.1℃(@37.5℃)
Stability	0.1℃/30min

Temperature measuring performance

Temperature measuring range	30℃ ~ 50℃
Accuracy	±0.3℃
Temperature calibration	Self-calibration

Interface

Data interface	UART/ Bluetooth/ WIFI/ RJ45/
Network Standard	Gigabit Ethernet
Protocol supports	customize
Input power supply voltage	5VDC

Environmental parameter

Working temperature	The working temperature can be in the range of -20℃~ 60℃, and the temperature measurement accuracy can be ensured in the range of 15℃ ~ 40℃.
Storage temperature	- 40℃ ~ 80℃
Humidity	≤85%(non-condensing)

Physical properties

Thermal Imager dimension	155mm*170mm*55mm
Blackbody dimension	88mm*63mm*32mm

tripod （apolegamy）

brand / model number	YUNTENG / VCT-668 Portable tripod
Weight	1.25kg
Load	3kg
material	Aluminum alloy
function	four-section / Rotating handle / Camera tripod
Storage length / Reach height	46cm / 152cm

Environment Description of System Installation

Requirement for environment setting and planning for personnel flow:

1. Within the detected environment, there is no any object temperature which is higher than the setting temperature of the standard temperature source.

2. It is necessary to plan and detect the traffic flows.

3. Set the sensing area.

4. Plan the traffic flows of green safety area and the of red fever area, respectively, and disposal processes.
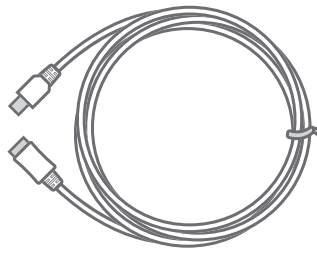
36°

0.8m

2.5m

4m
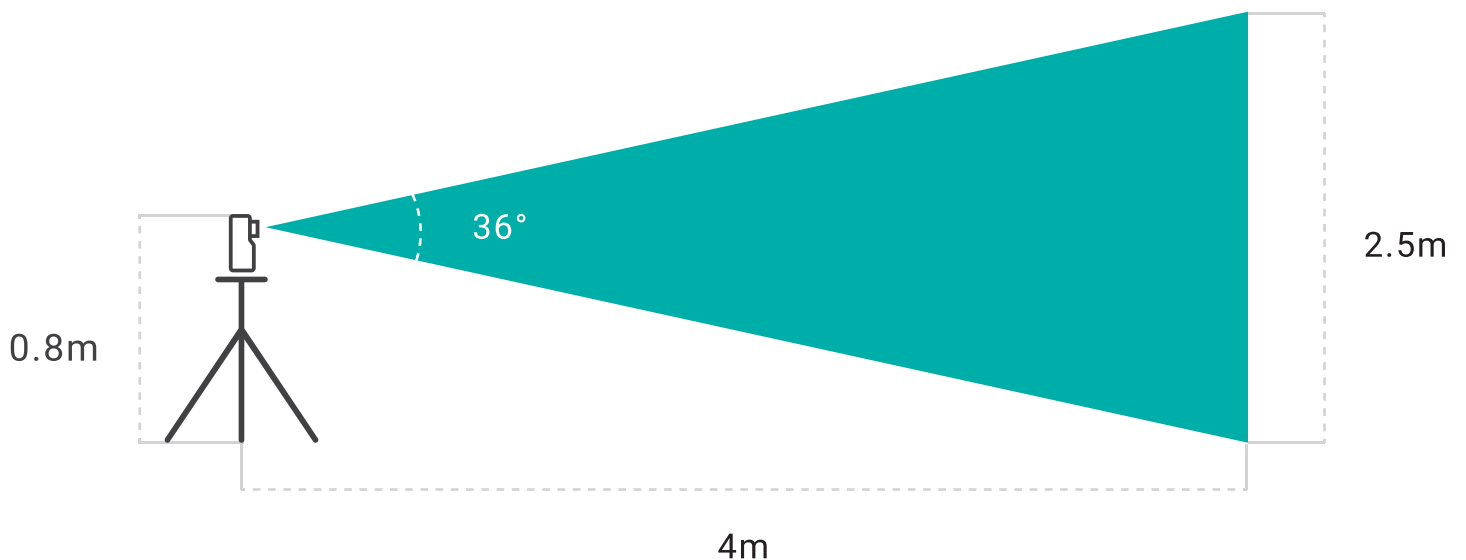
Parts List

9 Items

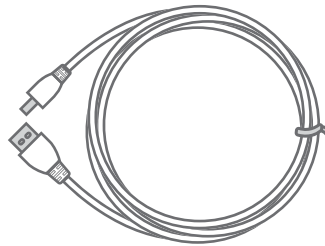## A. Infrared Camera System
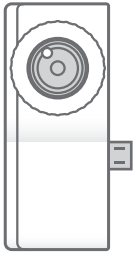
A-1
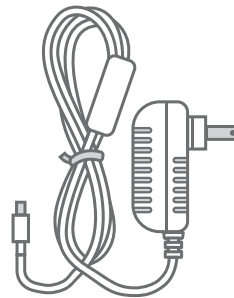Infrared camera

A-2
Signal cable

A-3
MICRO USB
adapter

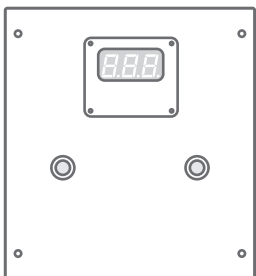## B. Microprocessor host system

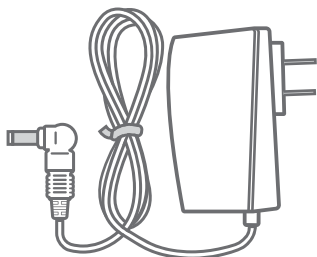B-1
Microprocessor
host system

B-2
HDMI image cable

B-3
Transformer

C. Standard temperature source system

D. Others

C-1
Standard temperature
source
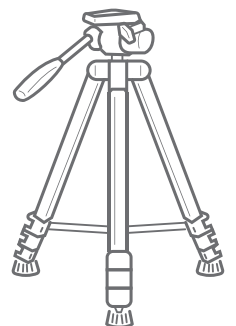
C-2
Transformer

D-1
Wireless Mouse

D-2
tripod
(apolegamy)

System Installation Instruction

A. Infrared Camera System STEP 1-3 →   B.Microprocessor host system STEP 1-2

→   C.Standard Temperature Source System STEP 1-2

## A. Infrared Camera System STEP 1-3

1

Install the infrared camera on the tripod and con-nect the infrared camera with the signal cable

2

Connect the other end of the signal cable with the MICRO USB adapter and then connect MICRO USB adapter with the blue USB port of the micro-cessor host system.

3

Connect the mouse receiver with the USB inter-face, as shown below

A-1
Infrared camera

A-2
Signal cable

B-1
Microprocessor
host system

tripod

A-3
MICRO USB
adapter
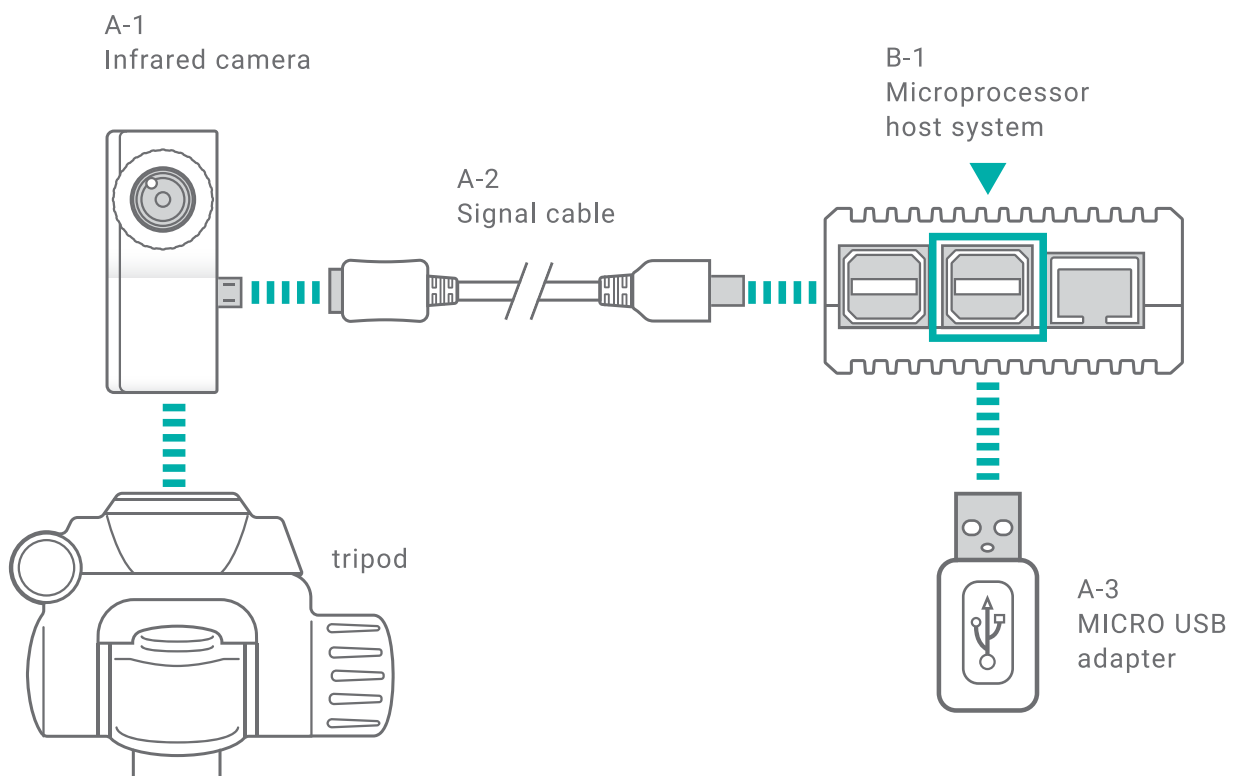
B. **Microprocessor Host System** STEP 1-2

**1** ──────────────────── **2**

Install the MICRO HDMI connector of the HDMI image cable to the MICRO HDMI 1 interface of the host, and install the HDMI connector of the HDMI image cable to the screen..

Connect the host transformer with the Type C interface of the transformer. After the host is powered on, the red indicator light will light up.

PS.
MICRO HDMI 1 interface has sound output. MICRO HDMI 2 interface has no sound output, and it is used to extend the second screen.

B-1
Microprocessor
host system

B-3
Transformer

B-2
HDMI image cable
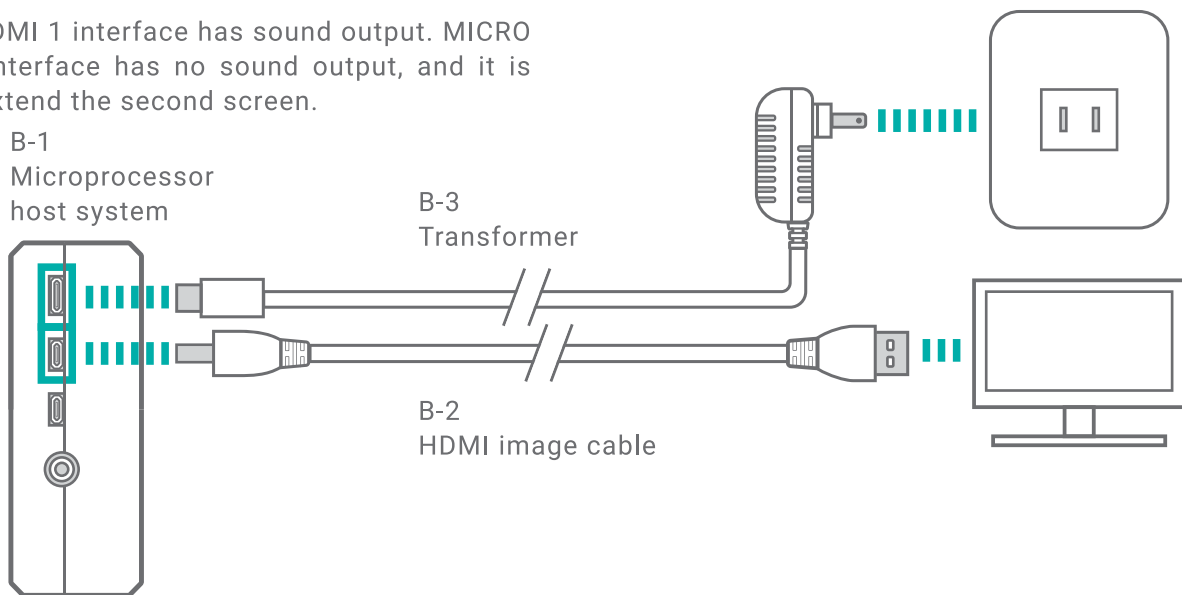
C. **Standard Temperature Source System** STEP 1-2

1 ──────────────────── **2**

Install the standard temperature source on the tripod.

Connect the transformer to the power interface of the standard temperature source, at this time it will automatically be heated up to the setting temperature.

C-1
Standard temperature
source

C-2
Transformer

tripod
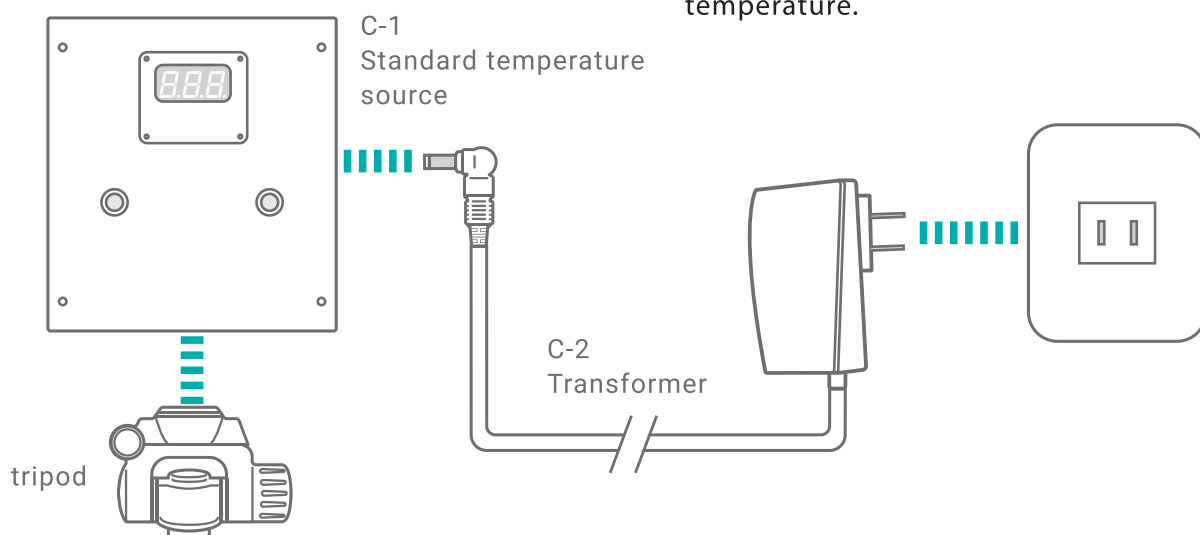
System Setting Intruction

I.Standard Temperature Source System   →   II.Microprocessor host system STEP 1-11

I. Standard Temperature Source System

After the standard temperrature source is pow-
ered on, it will automatically heat up to the sitting
temperature. The optimal setting temperature
will be 37.5°C and, if possible, please let the
setting temperature be 37.5°C

PS.
Temperature setting procedure of the standard
temperature source: after press the left and right
green buttons simultaneously, the red temperature
display flashes and then you can start to set the
temperature. The left button is pressed such that
the setting temperature is adjusted upwand, the
right button is pressed such that the setting tem-
perature is adjusted downward. After the tempera-
ture adjustment, press the left and right green
buttons simultaneously to complete the tempera-
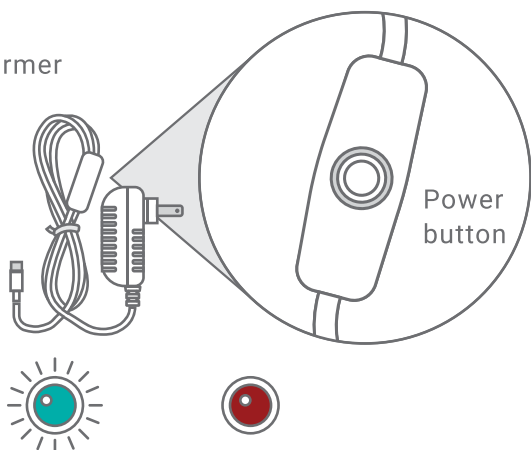ture setting.
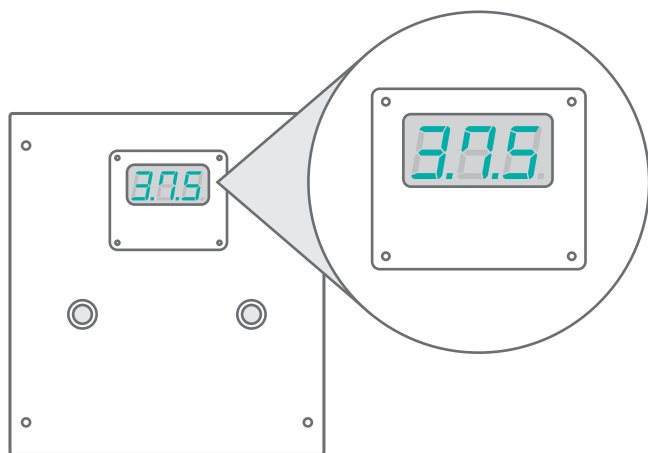
II. Microprocessor host system STEP 1-11

1

After press the power button of the Microproces-
sor host system, then the system is turned on and
the power indicator light will stay on redly, and
the system start light will flash greenly.

C-2
Transformer

Power
button

**system start**   **power on**
flash greenly   stay on redly

2

After the system is turned on, press the icon in
the lower left corner of the screen, and click the
icon denoted as "preferred setting " to select
"Screen Configuration" to set the display size of
screen.

[JMS Technology Co.,...

軟體開發
網際網路
影音
美工繪圖
其他
附屬應用程式
Help
偏好設定
Run...
Shutdown...

Add / Remove Software
Main Menu Editor
Raspberry Pi 設定
Recommended Software
Screen Configuration
外觀設定
螢幕保護程式
鍵盤及滑鼠

③

Put the mouse pointer on the HDMI icon, right click on the mouse to enter "Resolution" icon, select the appropriate resolution, press the green tick button, and finally press OK to complete the setting.
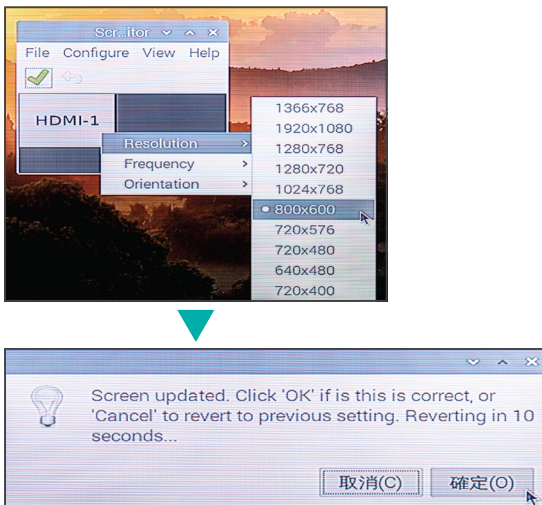
④

Press "OPTIONS" button in the lower right corner of the display screen to enter the monitoring temperature setting.
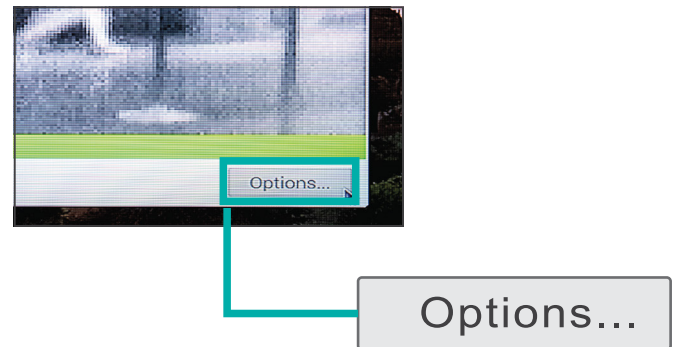
⑤

Tick "Fix at" icon in "Heat Source Setting" and type the heat source temperature.
The default value 39°C

⑥

At the field "Baseline Alert", set the upper and lower bounds of monitoring temperature. Click on the icon "keyboard" to enable the function of virtual keyboard input.

(a)
When the temperature of the measured object is lower than the lower bound of the monitoring temperature, the system displays green color and no alarm given. It shows that the temperature of the measured object meets safety regulations.
(b)
When the temperature of the measured object is higher than the upper bound of the monitoring temperature, the system displays red color, but no alarm given. It means that the abnormal objects with high temperatures, such as a cup of hot coffee, can be excluded.
(c)
When the temperature of the measured object is within the setting range of monitoring temperatures, the system displays red color and an alarm given. It is noted that this system can monitor multiple objects at the same time, and show the abnormal temperature areas.

7

Select "Manually" in the field "Heart Source Area", the corresponding location of the standard temperature source will be anywhere on the monitoring screen, and finally press the button "Save" to save the set value.
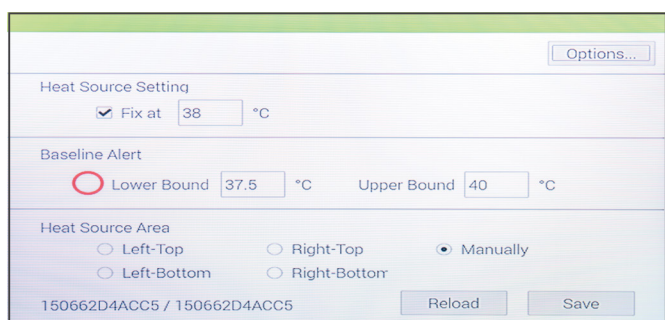
8

Adjust the angle of the infrared camera and the position of the standard temperature source, so that the standard temperature source can be shown in the monitoring screen. By using the mouse, move the white dotted frame to frame the standard temperature source.
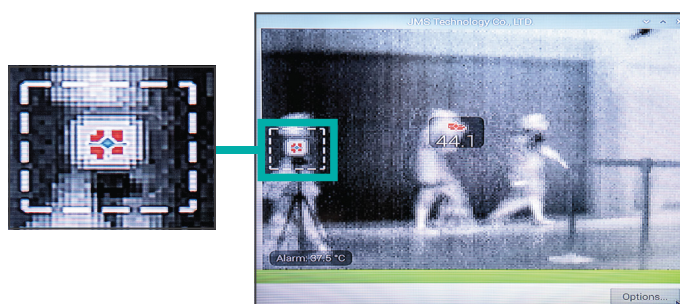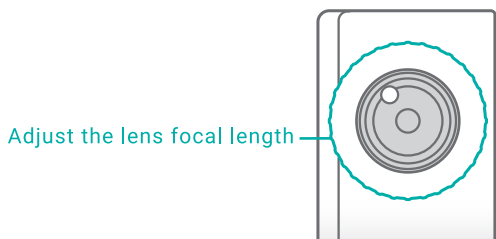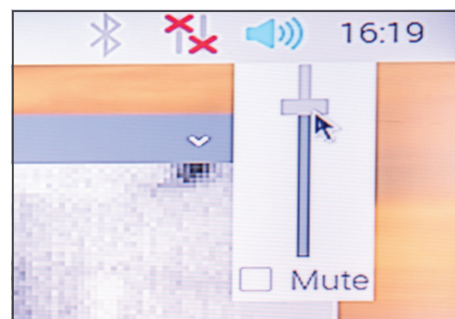

Standard temperture source

9

Adjust the focal length of the infrared camera so that the picture show the clearest image

A-1
Infrared camera

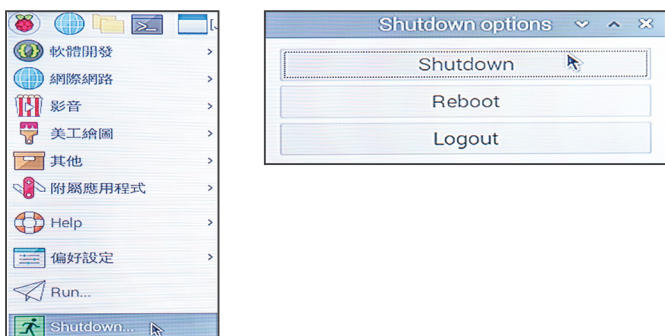Adjust the lens focal length

10

Press the speaker icon in the lower right corner of the screen to adjust the warnig volume.

11

Click the icon 🍓 in the lower left corner of the screen and press the button "Shutdown" (or 'Reboot') to select Shutdown (or Reboot).

Warranty

1. For non-artificial damage, this product is guaranteed for one year.

2. This product which includes infrared camera system, microprocessor host system and standard temperature source system cannot be disassembled without the agreement of JIA KANG Intelligent Technology CORP.. If the product is disassembled without the agreement of JIA KANG Intelligent Technology CORP. warranty will be lost after disassembly.

3. The infrared camera system is only for use in Taiwan. If it is transferred, the oroginal factory must be notified, and the offender bear their own legal responsibilities.

JKT JIA KANG Intelligent
Technology CORP.