
AI Thermal Detector with TA System

Thermal Detector

For prevention of COVID-19, Howen New AI Thermal Detector with Time attendance system Hero-TD01-G, adopts the new AI chipset, large thermal sensor array, and latest algorithm, providing cutting-edge face recognition and body temperature detection.

High Accuracy

±0.2°C forehead temperature detection
99.9% Face recognition: the best solution for access control and time attendance system

Fast Detection

50ms temperature + 200ms face recognition measurement

Long detection Range

0.3 m ~ 1.2 m forehead body temperature detection

Wear mask recognition

Support face recognition with face mask, recognition rate > 95%
Detection range: up to 2 metres
Supports 1: 1 or 1: N face comparison

Attribute recognition

Supports detection of race, hard hat, skin color, etc.

Super backlight suppression

Support face exposure, automatic adjustment according to strong light
Support night-time 3D noise reduction, provide best quality in darkness

Variety of door access control

Support face recognition or door access control

Customizable multi-language

English, Spanish, French, Italian, Russian, Japanese, Korean UI



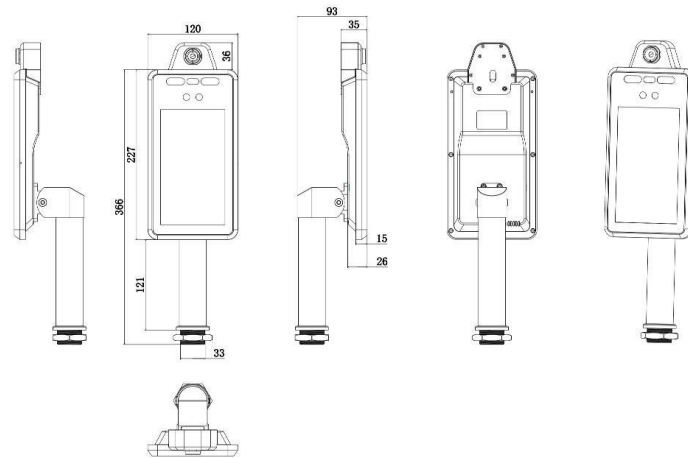
Hardware Specifications

Model	
Item	Specification
Sensor Type	Uncooled infrared focal plane array
Infrared Thermography camera	120°90
Thermal measurement range	0.3m-1.2m
Thermal measurement accuracy	±0.2°C
Hardware	
Processor	AI chipset ARM Cortex-A7 quad-core, 4 x high performance CEVA DSP
OS	Linux
Storage	8GB EMMC+1GB DDR4
LCD	7 inch, 1024*600 resolution
Camera	
Sensor	Dual 2Mp, low lux sensor
WDR	≥120dB
FoV (Diagonal/horizontal/ vertical)	73degree /65 degree /40 degree
Iris	F2.0
Focus length	4.3mm
Performance	
Biopsy	Anti-electronic screen, video, mask hacker attack
Recognize height	1.2~2.2 metre, angel adjustable
Detection range	0.5m~2m, lens adjustable
Face library	30,000 (default)
Attendance Record	30,000
Face angle	horizontal 30 degree, vertical 30 degree
Interface	
Alarm input	2 pcs
Alarm output	1 pcs
Access control	Push out
Power supply	DC12V , 2A (9 -16V DC)
Power consumption	Less than 24W
Ethernet	1 pcs RJ45 10M / 100M Ethernet
Wifi	2.4G Wi-Fi (Optional)
USB	1 pcs USB 2.0
General	
Working Temperature	-40 °C~ + 60 °C.
Dimensions	120mm*226.5mm*33.5mm

Algorithm Parameters

Application	Items	Description
Face recognition	Face recognition	Local recognition: 30,000 (default)
	Algorithm accuracy	99.9%@0.01% (The accuracy rate is 99% under the 10,000th false alarm rate) 95%@0.0001% (The accuracy rate is 95% under the one-millionth false alarm rate)
	Angle requirements	Yaw $\pm 30^\circ$, roll $\pm 30^\circ$, pitch $\pm 15^\circ$
	Face minimum pixels	Face size above 80 * 80 pixels
Face biopsy detection	Angle requirements	Yaw $\pm 30^\circ$, roll $\pm 30^\circ$, pitch $\pm 15^\circ$
	Face pixel requirements	Interpapillary distance 50 pixels and above
	Algorithm accuracy	98%@0.01% (Real pass rate@Dummy pass rate)
	Non-biopsy category	Pictures, videos, coated paper, fake face models, etc.
Face detection and tracking	Number of people captured	More than 30 people / frame
	Snap frame rate	25fps
	Minimum face size	30*30
	Adaptation angle	Yaw $\pm 45^\circ$, roll $\pm 45^\circ$, pitch $\pm 30^\circ$
Face attribute	Item	Gender, age, glasses, facial expression (angry, calm, happy, sad, surprised), mask, ethnicity, beard, ethnicity, hat detection, helmet detection
	Algorithm accuracy	Age accuracy (± 5 years old): more than 85%; Gender accuracy: more than 96%; Skin color accuracy: more than 97%; Beard accuracy: more than 97%; Glasses accuracy: more than 98%; Mask accuracy: more than 98%; Hat accuracy: more than 97%; Expression accuracy: more than 88%

Dimensions *Unit: mm*

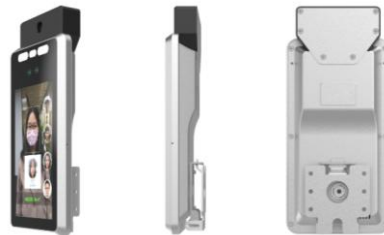


Installation:

1) Pedestal-mount



2) Wall-mount



3) Desktop

