# AI Thermodetector

## Model: SRX-AL-TD01

For prevention of COVID-19, Sorax New AI Thermodetector SRX-AL-TD01, adopts the new AI chipset, large thermal sensor array, and latest algorithm, providing the cutting-edge face recognition and body temperature detection, with ability to detect wearing the mask.

## High Accuracy

± 0.2-0.3 ° C forehead temperature detection
99.9% Face recognition: the best solution for access control

## 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 meters
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 nighttime 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 | SRX-AL-TD01 |
| --- | --- |
| 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℃ |
| Hardware | |
| Processer | 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 meter, 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) |
| Mo | 4G Module (optional) |
| USB | 1 pcs USB 2.0 |
| General | |
| Working Temperature | -40 ℃~ + 60 ℃. |
| 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 ±30° , roll ±30° , pitch ±15° |
| | Face minimum pixels | Face size above 80 * 80 pixels |
| Face biopsy detection | Angle requirements | Yaw ±30° , roll ±30° , pitch ±15° |
| | 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 ±45° , roll ±45° , pitch ±30° |
| 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*
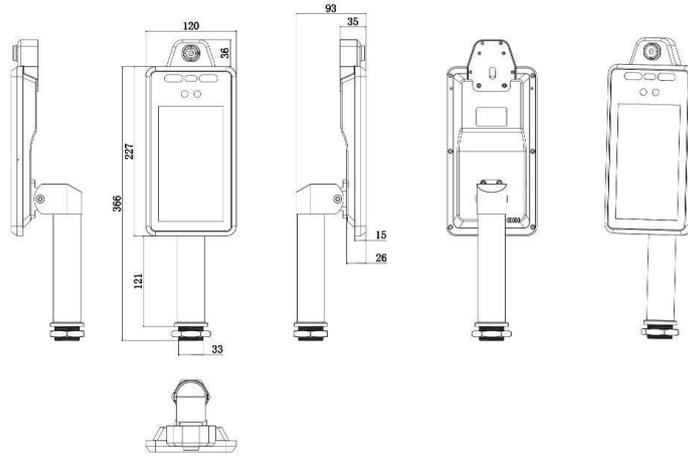


Installation:

**1) Pedestal-mount    SRX-BK-PM**



2) **Wall-mount    SRX-BK-WM**



3) **Desktop SRX-BK-DT**