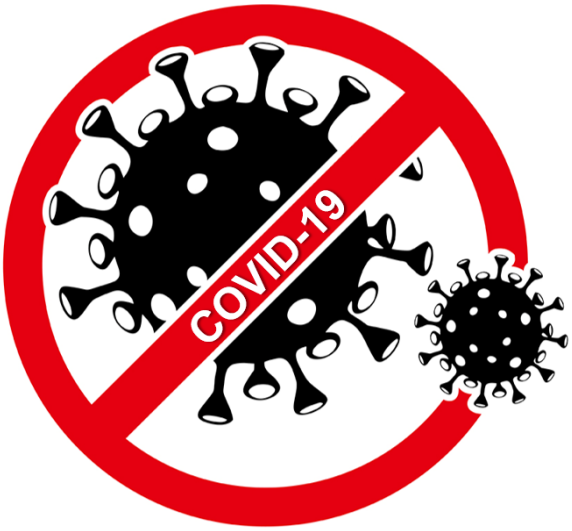
THERMAL SENSE

TECH MAHINDRA'S SOLUTION TO PREVENT SPREAD OF COVID-19

COVID-19 outbreak has the whole world scrambling to protect themselves, their homes and businesses from potential contamination.



The aftereffects of such biohazard situation can last for a long time and every COO's would worry If adequate protection is taken to her/his facilities to ensure safety of employees from the spread of Coronavirus and detected at the first entry point.

Fever is a key diagnostic for COVID. Our solution measures the temperature accurately using AI and Thermal Camera Set up. If this solution is not available, customers may have to manually measure temperature with a handheld thermal gun. Problem is exposure to individuals handling this measurement.

Fever measurement for COVID diagnostic will be a market need for at least next 12 months. Potential of Wave 2 of this pandemic is on customer's minds.

The thermal imaging camera is used to measure the surface temperature quickly. As we go into COVID era, face masks could become mandatory. Our solution has integrated facial recognition system that can recognize folks not wearing masks and give alerts. Better RESTFUL API interface for interconnecting with any of the existing systems. Solution is easy to set up and almost a plug and play. HW needs onsite installation. Solution can also be integrated to HRMS / Security dashboard systems etc. Solutions costs starts from USD 10K onwards. Detects temperature across 110000 points of the forehead and takes the temperature of the maximum point. AI actively tracks the face and forehead area. Algorithm optimization & Accuracy≤±0.3°C

Connected World.
Connected Experiences.

Two Variants of the Solution

SKU1

A thermal imaging camera with the black body reference device with the linux based system named Nebula

- This solution is proposed when there is a huge traffic and the traffic is not in a sequential queue.
- This can measure simultaneously around 15 faces in one go and identify their corresponding temperatures
- At any security checkpoint, when 100 passengers pass through, the system automatically detects that some of them having a body temperature exceeding 37.3° C.
- Greatly improved the accuracy of human body temperature screening Ensures normal traffic speed, and

SKU2

A simple Android based Standalone system with the infrared camera

- This solution is proposed when the traffic is a regulated one.
- The passenger has to stand in front of the system for a while to check his forehead temperature.
- The measurement time is 0.3 seconds.
- This supports wiegand protocol and the doorgates can be actuated based on the set conditions

Item	Nebula M SKU 1	Thunder E SKU 2
Product image		
Detection range / Accuracy	35.00 – 42.00℃ / ±0.3℃	35.00 – 42.00℃ / ±0.3℃
Minimum unit of display	0.02℃	0.02℃
Speed (second)	Less than 0.3	Less than 0.3
Detection distance (meter)	3	1.5
# of people for simultaneous detection	15	1
Facial Recognition with masks	Yes	Yes
Anti-spoof feature	Yes	Yes
Alert on not wearing masks	Yes	Yes / Access deny
Data storage	Backend	Backend
Interfaces	API, PC	API, HDMI, social media
Applications	Areas with heavy traffic (airports, rail stations)	Entrance point with medium traffic (office buildings, post offices, schools)

Key Highlights

1. Fast Deployment

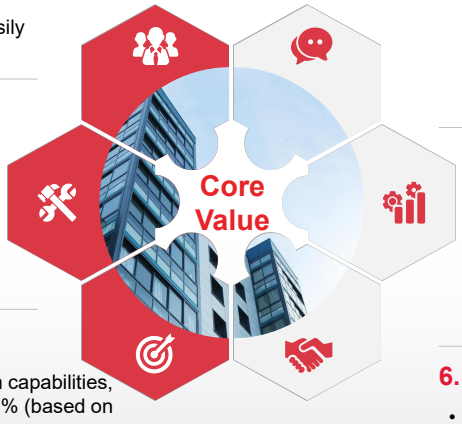
- Full set of equipment can be deployed easily and independently

2. Support both temperature Measurement and FR

- While satisfying the thermal imaging human body temperature measurement, the solution supports face recognition, enabling body temperature alarms to automatically correlate identity

3. FR High accuracy with Mask

- Based on Sensetime Leading AI algorithm capabilities, face recognition accuracy with masks> 90% (based on 300,000 base library scale)
- Support detection of pedestrians without masks and output alarm



4. Temperature measurement and face capture history can be traced

- Records of temperature measurement and face capture can be saved. If an epidemic situation is diagnosed afterwards, the historical records can be traced and the facial data of colleagues can be retrieved in order to carry out epidemic prevention work more effectively.

5. Full API interfaces for interconnection

- By providing a standard API interface, it can be connected to the public security systems and other related agencies and offices' systems to provide real-time local data.

6. widely applied to multiple scenarios

- Suitable for airports, railway stations, bus stations, ports, subways, schools, hospitals, office buildings, industrial parks, communities, shops, etc.