

PRODUCT GUIDEBOOK

TURING SHIELD

Covid-19 Response Solution





Reopen Your Business with Confidence

#1 COVID-19 Response Solution with Thermal Scanner - **Safe, Secure and Accurate**
Supports COVID-19 response protocols
Protect your business with **Turing Shield**



Overview

Turing Shield is a COVID-19 response solution which combines enterprise-grade AI powered non-contact body temperature thermal scanners with highly secure cloud-based data management platform to help organizations reopen with confidence and peace of mind.

Turing Shield supports COVID-19 response protocols and aligns with Centers for Disease Control and Prevention (CDC) guidelines. Turing Shield provides highly secured encrypted data management platform with safe and secure record keeping that will help with employee's worker compensation claims as well as mitigate organizational risk.



Easy Installation

- Simple Plug and Play Design



COVID-19 Response Protocol

- Built-in CDC health questionnaire
- Face mask detection
- Temperature screening
- Contact tracing capability



AI Powered Data Management Platform

- Centralized monitoring of all thermal scanners
- Safe and secure record keeping with optional biometric data
- Real-Time visibility into high temperature readings
- Time Clock Integration



Access Control

- Modular manufacturing design allows flexible customization
- Supports HID card access, badge printing and many more

Content

COVID-19 Response Solution

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Hardware Overview

- Features
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Software Overview

- High Temperature Alert Tracking
- Contact Tracing

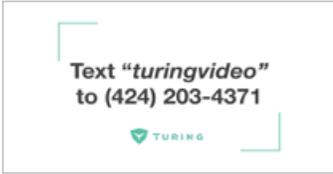
Turing Biometrics

- Features
- Specifications
- Model Performance

Enterprise Package (Recommended)

COVID-19 Response Solution

Employee/Visitor Walk-through (Access **Approved**)



Text Triggered Questionnaire



CDC Health Questionnaire



Enter Work Facility



QR Activate/Verify Questionnaire



Face Mask Detection (**Passed**)



Temperature Screening (**Passed**)



Badge Printing (**Cleared**)



HID Reader (**Accessed**)

Employee/Visitor Walk-through (Access **Denied**)



Face Mask Detection (**Failed**)



Temperature Screening (**Failed**)



Badge Printing (**Failed**)



AI Platform (**High Temp Alert**)

Admin/Supervisor Walk-through



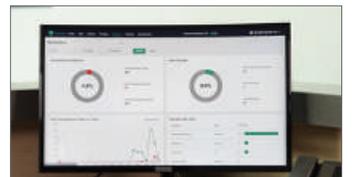
AI Platform
(Alert/Notification via Email/SMS)



AI Platform
(Review Alert Details)



AI Platform
(Contact Tracing)



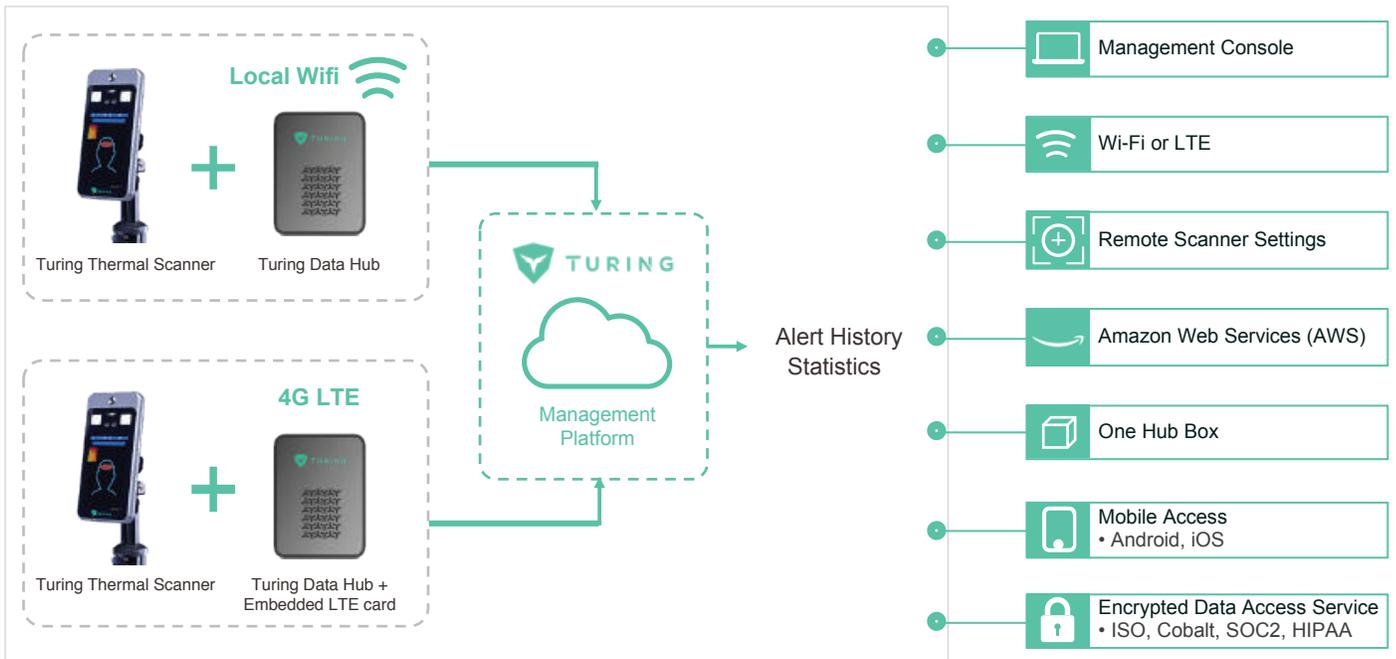
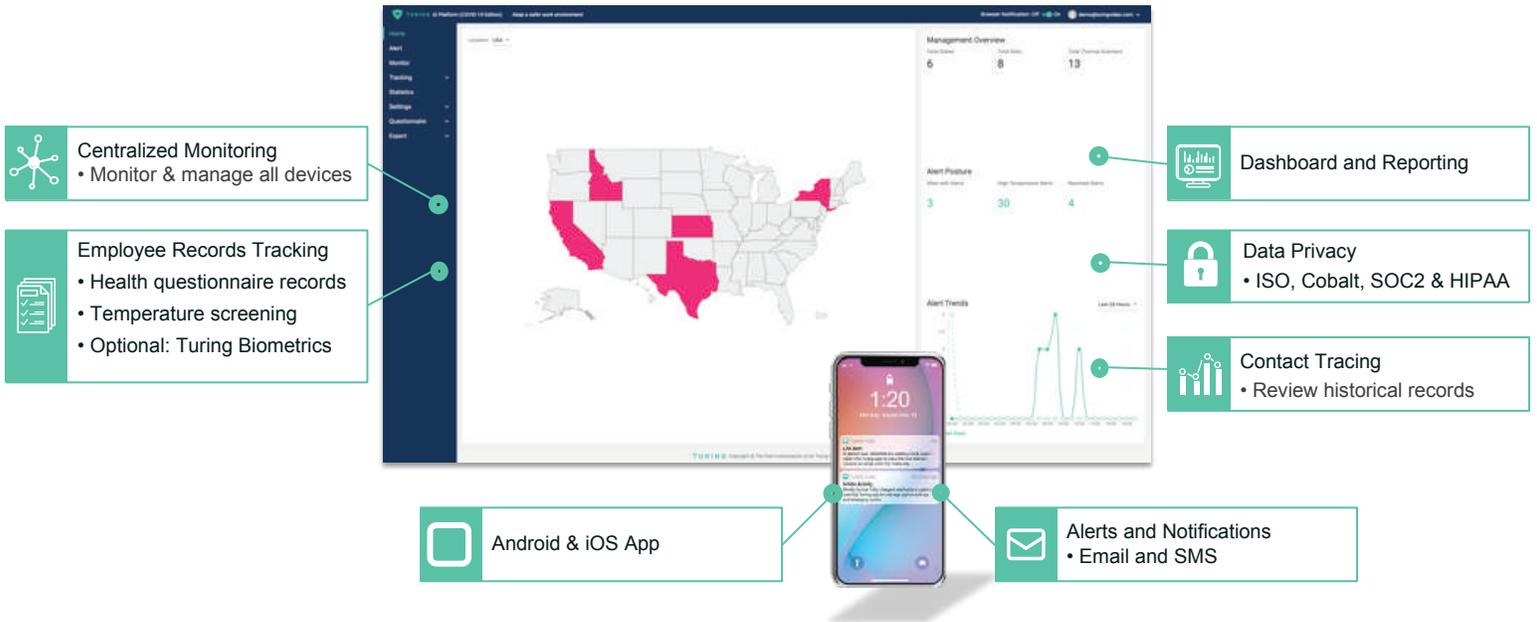
AI Platform
(Dashboard Reporting)

Features

- Customizable Health Questionnaire
- Face Mask Detection
- Temperature screening ($\pm 0.5^{\circ}\text{F}/\pm 0.3^{\circ}\text{C}$)
- Access Control
HID card access, badge printing and many more
- Centralized Monitoring of all Thermal Scanners
- Safe and Secure Record Keeping with configurable Biometric Data
- Real Time Alerts via Email/SMS
- Contact Tracing based on Biometric Data
- Simple and Easy Reporting to support new COVID-19 Legislations

COVID-19 Response Solution

Functionalities



Data Privacy



System is fully encrypted with field-level database encryption and secure HTTPS data transmissions to meet HIPAA data security standards.



COVID-19 Response Solution

Use Cases



Bank



Building Lobby



Business Center



Construction



Dentist Office



Franchises



Hotel



Kindergarten



Finance



Office



Hospital



Restaurant



Retail Chain



Retail



School



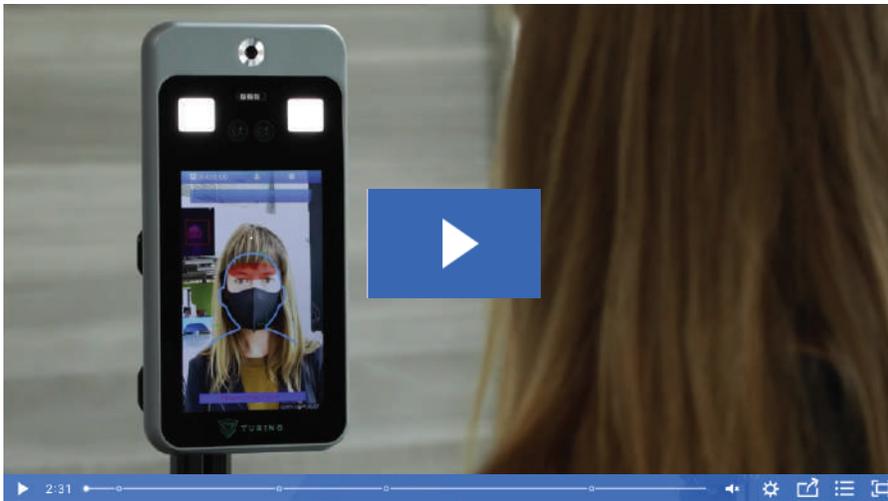
Store



Transport



Warehouse



Trusted by more than **600+** Enterprise Customers

Including



As Seen On



Massachusetts Institute of Technology



STANFORD

USC University of Southern California

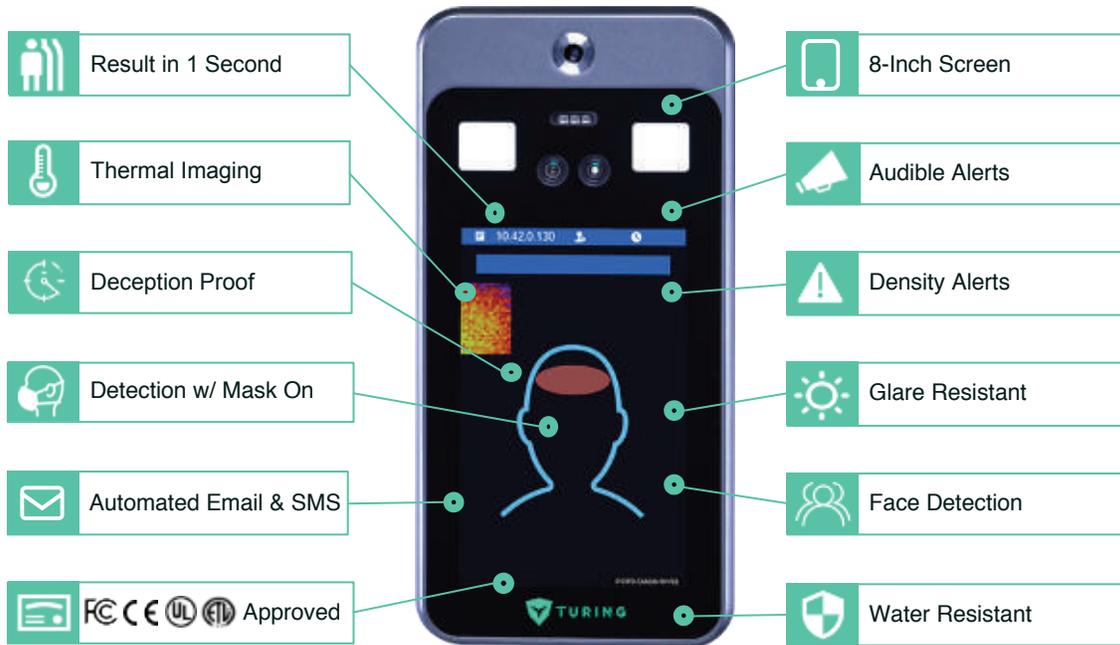


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All specifications are subject to change without notice.
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Hardware Overview

Features



Specifications



Camera	Dual Lens
Lens Aperture	1/2.8
Minimum Lighting	0.01Lux@(F1.2,AGC ON)
Display	7-inch HD LCD Screen
Image Enhancing	Adaptive Light Compensation, DNR
Video Encoding	H.264
Data Rate	1-4 Mbps
Resolution	1920 x 1080
Frame Rate	25 Frames per Second
Video Setting	Exposure, Gain, Contrast, Saturation

Power Supply	12V DC 2A
Operating Power	8W
Range of Detection	50-104°F (10-40°C)
Operating Distance	18 inches (0.5m)
Detection Time	less than 100ms
Accuracy	±0.3°C (±0.5°F)
Alert Modes	Voice Alert, Text Messages
Certifications	CE, FCC, IC
SDK Support	Linux, Windows
Support Protocols	HTTPS

Hardware Overview

Accessories



Stationary Stand



Adjustable Stand



Wall Mount



Base equipped with Turing Data Hub

Hardware Overview

Accessories



Integrated Stationary Stand

Software Overview

High Temperature Alert Tracking

Alerts Updated 1 minute ago [Refresh](#)

Pending alert: **89** | In Process alert: **10** | Manually Resolved alert: **3,254**
Avg Processing time: 26 mins

Search: All Status: All Alert Type: All State: All Site: All Device: All time:

Created (UTC-7:00) ↓	Alert ID	Status	State	Site	Device Location	Alert type	Device name
2020/03/15, 08:20:34	ID Number	PENDING	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:20:30	ID Number	PENDING	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:20:23	ID Number	IN PROGRESS	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:20:12	ID Number	PENDING	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:03:43	ID Number	PENDING	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:02:01	ID Number	AUTO RESOLVED	California	Site123	Device Location	Debris monitoring	DETAIL DELETE
2020/03/15, 08:00:34	ID Number	AUTO RESOLVED	California	Site123	Device Location	Debris monitoring	DETAIL DELETE

Contact Tracing (Powered by Turing Biometrics)

Alert ID: 12345 Pending

Name: Nick
Serial NO.: 2222
Site: San Mateo Downtown

Screening Time: 2020/09/04,19:36:54
Temperature: **99.12°F**
Device Name: TS10186
Mask: **No**
Questionnaire Result: [Detail](#)

Body temperature records in past 14 days

99.4
99.0
98.6
98.2
97.8
96.4

9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1 9-1

Temperature Screening Records

09/03: **99.12°F** | 09/02: **98.12°F** | 09/01: **98.12°F**

Contact Tracing Records

09/04, 19:36:54, TS10179 | 09/04, 19:36:54, TS10179

09/04, 19:36:54, TS10179 | 09/04, 19:36:54, TS10179

Comments*

Mark as In Process

Review historical records from thermal scanner temperature readings and security camera footages

Turing Biometrics

Features

Turing Biometrics model is based on state-of-the-art neural network machine learning algorithms. The models were trained over several millions of face images from more than 100,000+ individuals. Our algorithm can accurately locate and identify the identities in the given images.

Turing Biometrics' models can be activated to be used in the following ways:

- Face Mask Detection
- Facial Detection and Recognition
- Contact Tracing



Alert ID: 12345 Pending ✕

Name	Nick
Serial NO.	2222
Site	San Mateo Downtown

Screening Time: 2020/09/04,19:36:54
 Temperature: 99.12°F
 Device Name: TS10186
 Mask: No
 Questionnaire Result: [Detail](#)

Body temperature records in past 14 days

Comments*

Add comments here

Mark as In Process

Temperature Screening Records

	09/03 99.12°F	09/02 98.12°F	09/01 98.12°F
--	---	---	---

Contact Tracing Records

	09/04, 19:36:54,TS10179		09/04, 19:36:54,TS10179
	09/04, 19:36:54,TS10179		09/04, 19:36:54,TS10179

Specifications

- The minimal size of the face that can be detected should have no less than 40x40 pixels in an with 1920x1080 pixels.
- The minimal image size uploaded for detection and identification is 80x80 pixels
- Supports JPEG and PNG image formats
- The maximum number of faces that can be added for identification is 20 million.

Model Performance

- The following model performance report is based on testing using random face images
- Test Set 1 (Frontal Face Images) - 1,000 frontal face images that includes background noise
- Test Set 2 (Unconstrained Face Images) - 1,000 online face images that have varied face pose angles

1:1 Matching Results – FNMR at Primary FMR		
FNIMR	Test Set 1 (Frontal Face Image)	Test Set 2 (Unconstrained Face Images)
0.10%	10.3%	-
0.01%	18.5%	20.2%

1:N Identification Results – True-Positive Identification Rate (TPIR)		
TPIR Identifications	Test Set 1 (Frontal Face Image)	Test Set 2 (Unconstrained Face Images)
Top 1	89.3%	87.9%
Top 5	91.5%	88.5%

REFERENCE:
 FNMR - FALSE NON-MATCH RATE
 FMR: FALSE MATCH RATE



Enterprise Bundle (Recommended)



Package Includes:

- 7" Body Temperature Thermal Scanner
- Stationary Floor Stand (*Most Popular*)
- CDC Questionnaire
- AI-powered Data Management Platform (*1-Year Subscription*)
- Turing Biometrics (*1-Year Subscription*)
- Industry-Leading 1-Year Product Warranty

Please reach out to Turing Sales for detail information

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