BEFORE

Medical/Wearable device

NOW

FaceHeart Reads Your Vitals Precisely—
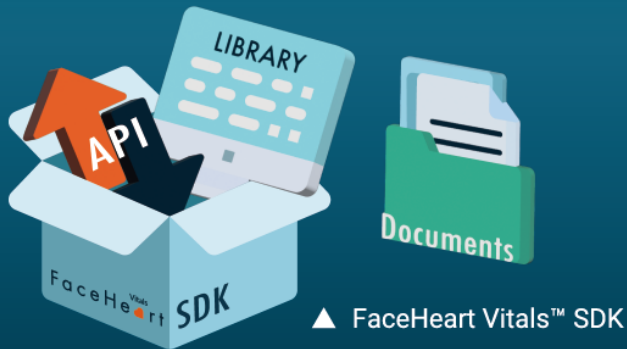*Through a Single Camera Lens!*

- Contactless
- Single Camera
- Video-based Vital Sign Measurements

FaceHeart Vitals™

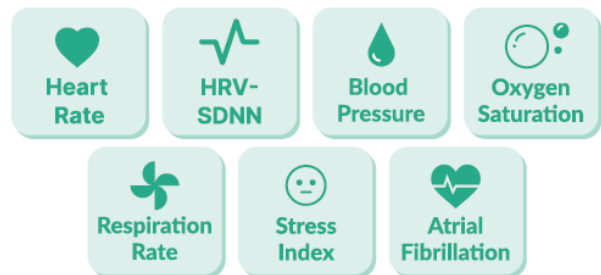## AI Remote Healthcare & Health Management Solution

A remote video-based measurement software empowered
by cutting-edge AI image recognition technology.

鉅 怡 智 慧
FaceHeart

FaceHe♥rt Vitals
Connects AI from Face to Heart

FaceHeart Vitals™ presents patented Software Development Kit (SDK) and various applications designed to support remote, contactless vital signs measurements with high flexibilities.

▲ FaceHeart Vitals™ SDK

Get your 7 major vital signs in 40~60 seconds with FaceHeart Vitals™!

- Heart Rate
- HRV-SDNN
- Blood Pressure
- Oxygen Saturation
- Respiration Rate
- Stress Index
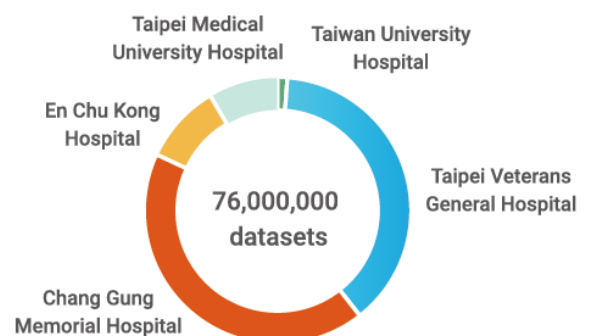- Atrial Fibrillation

FaceHeart Vitals™ Features

Simple Integration into a Wide Variety of Devices

- Measuring in 40~60 seconds
- HR within ± 3-5 bpm accuracy
- Contactless measurement
- Using a single video camera
- Adopting remote photoplethysmography (rPPG) method
- No internet connection needed
- No privacy and security concerns
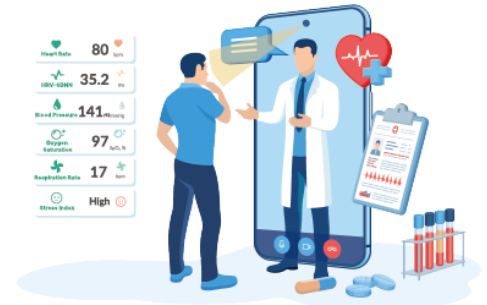- Flexible integrations via Software Development Kit (SDK)

Clinical Trials

FaceHeart continues working on improving its measurement accuracy by conducting extensive clinical trials in various areas (including Cardiovascular Diseases, Neurology, Operating Room, Thoracic Medicine, Atrial Fibrillation, etc.) for the purpose of calibrating its AI algorithms to achieve medical-grade accuracy.

76,000,000 datasets

- Taipei Medical University Hospital
- Taiwan University Hospital
- En Chu Kong Hospital
- Taipei Veterans General Hospital
- Chang Gung Memorial Hospital

How to collaborate with us?

The following are application scenarios that can be combined with FaceHeart Vitals™.

For Mobile Health App Developers

FaceHeart Vitals™ offers an all-in-one body vitals monitoring solution to your clients and can be smoothly integrated into many digital health apps in the market, such as:

- Medical apps
- Diabetes apps
- Period & Ovulation apps
- Sleep management apps
- Meditation apps
- Dietary & Fitness apps

AND MORE!

For Telemedicine Practitioners

FaceHeart Vitals™ enables physicians to obtain patients' physiological information in real time.

- Enhance telemedicine efficiency
- Reduce wearable device costs

Remote Patient Monitoring (RPM)

Wellness & Fitness Devices

For Smart Healthcare Professionals

FaceHeart Vitals™ can be applied in remote patient monitoring scenarios and complements numerous wellness & fitness devices in the market to realize preventative healthcare!

- Allows visualization and quantification of health changes over time for patients

Minimum Risk of Infection

Using Contactless Measurement of key vital signs minimizes the risk of infection.

Time-Saving

Avoiding unnecessary doctor/hospital visits saves time, especially for people with low mobility.

Remote Healthcare

Providing valuable information to medical professionals makes remote healthcare a reality.

Self-Monitoring at Anyplace, Anytime

Keeping an eye on your health via your mobile devices leads to a better lifestyle.

FaceHeart Vitals™ ensures safe & convenient health care for all!

Application Fields

Integration →

Telemedicine	**Digital Health**
Remote Patient Monitoring	**Healthy Lifestyle**

* Please refer to the inner page for illustrations.

Accuracy

Vital Signs	Error Level
Heart Rate	< ± 3 bpm
Blood Pressure	5 ± 10mmHg
Blood Oxygen	± 2.8%

Skin Color Test

The Fitzpatrick Scale is used to categorize skin color, ranging from Type I (lightest) to Type VI (darkest).

	Type I - Type V	Type VI
Mean Absolute Error	< ± 2.5 bpm	< ± 4.6 bpm
Error Level < ±5 bpm	96%	77%

Makeup Test

FaceHeart has conducted various tests to verify its heart rate measurement accuracy against people wearing varying levels of makeup.

Scenario	Result
1 Without makeup	Normal
2 Light Makeup	Normal
3 Medium makeup	Normal
4 Heavy makeup	Impact on Signal Quality
5 Full coverage makeup	Impact on Signal Quality

Technical Specifications

1	Camera	Front camera
2	FPS (Frame Per Second)	15-30
3	Facial Image Size	100x100 pixels
4	Measurable State	Immobility/fine movement
5	Distance	0~500cm or customized
6	Number of People	Single/Multiple people
7	Computation	Edge computing (without WiFi)
8	Illuminance	≥150 lux
9	Color Temperature	3500K~6500K

Hardware Specifications

Platform	OS	Android 8.1 (and above)
		iOS 12 (and above)
		Windows 10 (and above)
	Chipset	64-bit Exynos 7904 (14 nm)
	CPU	4x1.7 GHz Cortex-A53 (and above)
Display	Resolution	VGA:640 x 480 pixels (and above)
		Typical Specification:
		1920 x 1080 pixels
Main Camera	Auto Aperture	2MP, f/2.0, AF (and above)
	Video	720p@30fps (and above)

More Details: MTK: i300B MT8362B, i300A MT8362A, i350 MT8365, i500 MT8385, i300PB MT8768WB, i300PA MT8768WA, i500P MT8788, i700P MT8789
Qualcomm: 660, 810, and above | Hisilicon: 3559A, and above | Rockchip: RK3288, RK3399, and above

Why Choose Us?

Remote Video-Based Measurement

By using video-based rPPG technology to measure vital signs remotely, FaceHeart Vitals™ eliminates the discomfort associated with contact-based solution.

Significant Clinical Datasets

FaceHeart has compiled more than 76 million verified data records from a variety of clinical trials conducted in six major hospitals in Taiwan.

FDA SaMD Clearance

FaceHeart Vitals™ is in the process of applying and expected to obtain FDA SaMD (Software as Medical Device) clearance in 2022.

鉅怡智慧 FaceHeart

Connects AI from Face to Heart

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