

Video-based Vital Signs Monitoring



*AI-powered Health and Wellness
Monitoring Solutions*

Transform Any Camera-equipped Device into a Vital Signs Monitor

Binah.ai's award-winning solution offers its customers an unparalleled advantage by transforming any camera-equipped device (smartphone, tablet, laptop, etc.) into a health and wellness monitoring solution. Either remotely or on-premise, Binah.ai's video-based solution removes the need for wearables and provides vital signs measurements with medical-grade accuracy:

Heart Rate



Heart Rate Variability



Mental Stress Level



Oxygen Saturation



Respiration Rate



Blood Pressure*



*Under development


How It Works

Binah.ai's solution applies a unique mix of signal processing and AI technologies, combined with a proprietary mathematical back-end to analyze a video taken from the upper cheek skin region of the face (no video of the eyes is required). It extracts vital signs within 10 seconds to 2 minutes, with medical-grade accuracy. It applies motion compensation and illumination normalization, and supports any age, gender and skin color. The vital signs extraction is based on a remote photoplethysmography (rPPG) signal using a unique, superior methodology. Binah.ai's stress level measurement is based on Baevsky's and US/European Index level measurements (globally approved). Each use case relies on peer-reviewed medical research, and is based on the ability to retrieve continuous, accurate rPPG measurements using video feeds in real time.


Delivery

Binah.ai's easy-to-integrate solution is available as an SDK for Android and for iOS or as an end-to-end white label application platform.


Estimation of the heart rate with video consists of the following steps:




Face detection




Face tracking



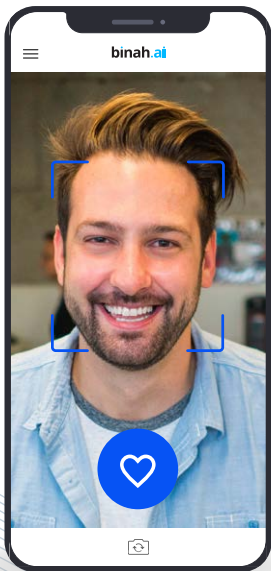
Motion compensation



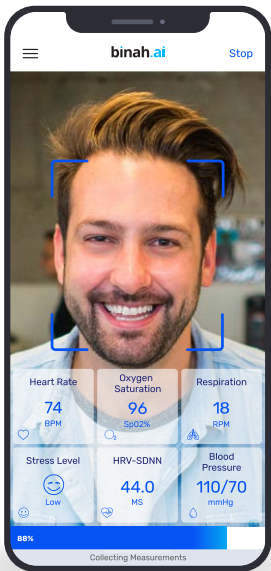
Illumination normalization



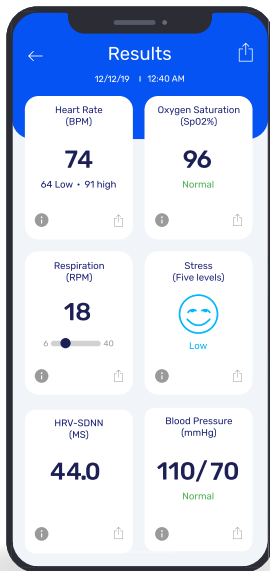
Skin region of interest selection



Runs on any smartphone, no internet connection needed



Real-time vital signs extraction using front facing camera



Quick overview of health status in less than 2 mins

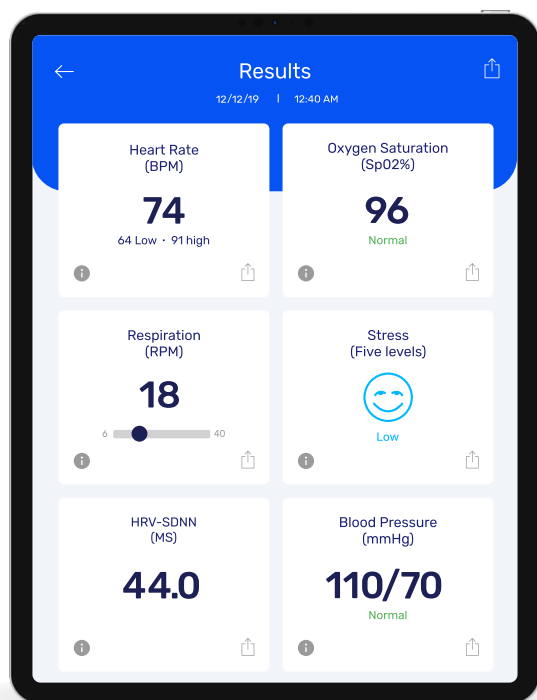
Selected Use Cases for Video-based Vital Signs Monitoring



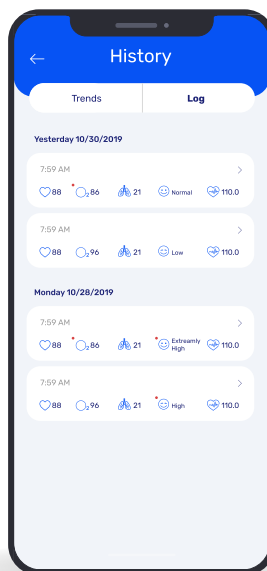
Vital Signs Monitoring with Medical-grade Accuracy



Heart Rate Accuracy:
Binah.ai: $\leq 2\text{bpm}$ **Market:** $\geq 3-4\text{bpm}$



Runs on any tablet and can be integrated into any application



Displays detailed view of measurements' history



Shows clear view of health measurements trends

AI-powered Applications that Shape the Future of Healthcare and Wellness

Binah.ai's award-winning and truly groundbreaking technology delivers on our vision and mission to allow for basic and universally accessible health and wellness services for everyone, anywhere. We are helping to define and shape the future of Digital Healthcare and Wellness by providing a video-based, extremely easy-to-use and available vital signs monitoring tool, delivered with medical-grade accuracy. The Binah.ai's proven app has countless use cases that span fields such as telemedicine, remote patient monitoring, primary care, personal and corporate wellness, preventive medicine, virtual trials, nursing homes, insurance, in-car wellness and many more. Binah.ai delivers these capabilities, built by our unique team of mathematicians, physicists and biotechnology PhDs, directly to the doorstep of future-focused companies. These modern, innovative companies understand that the latest technologies and connected services are the roadmap to personalized, streamlined, and universally accessible health services, that empower both organizations as well as personal users.

For more information on Binah.ai solution, please visit: www.binah.ai or www.bvue.app or write to us at info@binah.ai

Industries We Empower



Digital Healthcare



Wellness



Insurance



Automotive



Mobile

Success Story

Sompo Himawari Life Insurance, Japan's largest insurance company, uses Binah.ai's technology to detect heart rate and mental stress on its app. Sompo Himawari Life seeks to fully launch a stress measurement app for its policyholders sometime within fiscal 2020.

https://www.sompo-hd.com/~media/hd/en/files/news/2020/e_20200110_1.pdf#page=1



Recent Market Recognition



CES
Innovation Awards
2020 Honoree



Gartner Cool Vendor
in AI Core
Technologies 2019



GRAND CHAMPION
NTT Data
10th Open Innovation
International Contest 2020



DOMAIN CHAMPION
NTT Data
10th Open Innovation
International Contest 2020

Why Binah.ai?



Accessible

No wearables - available on any popular mobile device such as smartphones and tablets



Accurate

Built and clinically tested to deliver medical-grade accuracy



Easy-to-use

Detects vital signs just by looking at any device's camera



Always Available

App runs locally on device and does not require internet connection



Easy to Integrate

Delivered as an SDK or end-to-end white label app platform



For All

Supports any age, gender and skin color

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