



HEARTBIT

Revolutionary Solution for Real Time Exercise ECG Detection for Fitness Use



Run With Your Heart

The world's first real time 3-lead ECG device that is available in a comfortable smart T-shirt. Cardiovascular disease is leading causes of death globally and as such more people die annually from CVDs than from any other cause. Our preventive tool is able to assess the heightened risk of probability of stroke and sudden cardiac arrest.

Who We Are?

The HeartBit is the European research and development company, specializing in mechanical engineering, information technology and health sciences. Our major focus is on Cardiology and Cardiac research.

Features of HeartBit Device

REAL TIME MEDICAL GRADE EVALUATION:

It provides **highly accurate heart muscle analysis** with custom-developed algorithm which detects and provides warning signals about the heart's stress level during warm up, activity and recovery states, using a modified EASI electrode configuration. Also provides risk-analysis algorithm which is capable for **analysing signs of ischemia, risk of cardiac conditions and spot rhythm disturbances during exercise.**

OUTSTANDING ACCURACY:

The recorded ECG signals are digitized with high sampling frequency (500-2000 samples/second). Therefore, the detail of our high-fidelity ECG signals surpasses the quality of most common ECG device in the clinical practice.

CLEAR POSSIBLE SIGNALS:

The combined hardware & software solution filters out all disturbing noises arising from muscle-activity, and other environmental sources, providing the clearest possible signal originating from the heart.

OPTIMIZING THE ACTUAL WORKLOAD:

Capable of long-term data trend tracking and modelling (resting HR, VO2 max) and provides a unique ECG waveform analysis, that none of the competitors are capable of.

SMART TRAINING:

An intelligent system helps determine a training strategy that may assist in shifting from the 'untrained' to 'trained' characteristics. This way Heart Rate (HR) shall not exceed adverse limits.

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Founders



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Partnerships



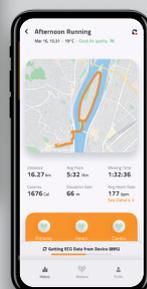
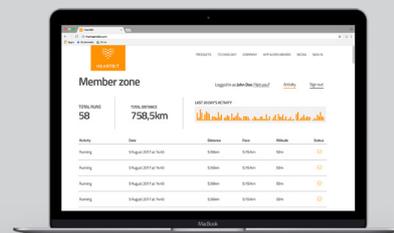
IBM Watson



National Institute of
Neurosciences



Szemmelweis University
Heart and Vascular Center





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Specification

General	What is in the package:	Device box, smart ECG t-shirt & HeartBit gel bottle, Packaging dimension (L x W x H): 20 x 10 x 25 cm
	Device box contained:	HeartBit device, charger platform and USB-C cable, USB-C cable length: 1 meter
HeartBit device	Device dimension:	66 x 44 x 22 mm
	Storage capacity (internal memory):	More than 1000 hours of measurement
	ECG sampling frequency:	500 Hz / lead
	ECG:	3-leads
	Other sensors:	Pedometer, barometer, temperature, humidity
	Water resistance:	IP54 (according to MSZ EN 60529: 2015)
	Weight:	40g
	Warranty:	2 years
Fit & Comfort	Smart T-Shirt material:	Comfort Stretch, nylon, and polyester
	Electrode Name:	Textile ECG Electrode
	Electrode connector specification:	4 sensors, 3-lead system
	Washing information:	Machine washable at 30 ° C, spin and tumble dryer cannot be used.
	T-Shirt sizes available:	S - XXL (Sleeveless/half sleeves/full sleeves for men & women)
Battery	Battery type:	Li-pol rechargeable battery
	Battery capacity:	450 mAh
	Operating time with one full charge:	At least 4 hours
	Charging temperature:	5 ° C to +40 ° C
Connectivity	Wireless connection:	Bluetooth BLE (4.1) Bluetooth BR / EDR (SPP, Apple iAP2 profile)
	Operating range:	Max. 5 meters
Extended Info	Operating temperature:	-10 ° C to +50 ° C
	Software updates:	via Bluetooth using iOS and Android app



HeartBit ECG Device in a smart wearable T-Shirt:

The device should be worn on a smart ECG T-shirt which contains 3 ECG channels allowing insight to the heart muscle activity from different perspectives. The Bluetooth powered device monitors the ECG with 2kHz sampling rate - 1500 times more detail than its current competitors.

BUILD UP AN EVERYDAY COMMUNICATION WITH YOUR HEART IN REAL TIME

Heartbit App

HeartBit app is an easy to use application running on the iOS 11 or above, and Android 6.0 or above platforms. The easy to use interface gives the user real time feedback on cardiac status, based on the 3-lead real-time ECG evaluation system with an integrated learning algorithm. So the user can see when to "Push Harder" or "Slow Down" or "Keep the pace" to be in the safe cardiac range.

