心电+血氧+血压 智能心率手表

使用说明书

开关机
开机：关机状态下，长按开机按键开机。（图1）
关机：将手环切换至关机界面，再长按触控按键关机。（图2）


图1


图2

充电
此手环为磁吸式充电，充电头只需对准充电接口，自动吸附即可。

图3

手表结构

图4

佩戴说明
手环最佳佩戴于手腕尺骨颈后1-2CM处，佩戴时务必保证手环底部紧贴皮肤，以免传感器漏光，影响到测量的精准度。


图5

手环界面及功能说明
1. 时间，日期，星期
首次使用请先与手机APP连接，会自动同步正确的时间、日期和星期。如图**6**。


图6


图7

2. 计步，卡路里，里程
此界面会显示计步，运动进度，卡里路消耗和距离数据。如图**7**。

3. 睡眠监测
切换至此界面，可查看深睡时长、浅睡时长。睡眠时长和睡眠质量，需在APP设置。如图**8**。


图8


图9

4. 心率检测
切换至此界面，手环会自动开启单次心率测量模式，心率图标开始闪烁，直至显示测试结果。如图**9**。

5. 血压检测
切换至此界面，手环会自动开启单次血压检测，图标开始闪烁，直至显示测试结果。 如图**10**。


图10


图11

6. 血氧检测
切换至此界面，手环会自动开启单次血氧检测，图标开始闪烁，直至显示测试结果。如图**11**。

7. 心电检测
将手环切换至心电测试界面，长按触摸键进入心电测试状态，（请保证手环电极片紧贴手腕皮肤且保持皮肤湿润，防止导联脱落）直至显示出测试结果。手环上手动测试的结果不会保存到APP上，如需保存请转至APP端开启心电测试。如下图**12**所示。


图12

8. 运动模式
在多功能菜单中，长按进入运动模式，可查看运动计时，卡路里消耗，实时心率和步数。此模式下，可切换屏幕并选择“暂停”、“继续”和“退出”选项。如下图**13**所示。


图13

9. 其它功能
在多功能菜单中，还可进入秒表，倒计时，信息，找手机，设置。

10. 关机
切换至此界面可以查看设备名，版本号，蓝牙ID。长按触控按键可关机。如图**14**。

参数
主芯片: NODIC 52832
传感器: 芯科 Si 1182
屏幕尺寸: 1.54 TFT
分辨率: 240x240
电池 ：230 mAh
防水等级 : IP67
待机时间：15天
支持手机系统： IOS8.0 或以上，Android 4.4 或以上
心率检测：支持
血压检测：支持
血氧检测：支持
心电图检测：支持
蓝牙版本：5.0

注意：本手环测试数据仅用于参考，不做医疗数据使用。

手机APP 下载安装以及蓝牙连接
1.打开手表
2.打开手机蓝牙
3.扫描以下二维码或在Apple store/ Google play store 搜索“H band” APP 下载安装。

4.打开APP，点击连接设备，从连接设备列表中选择对应的蓝牙名称，连接成功后，手环将同步手机时间、日期，星期等。

蓝牙断开
1.在APP里断开蓝牙
2.关闭手机后台运行。
3.从手机设置--蓝牙---忽略或删除已配对的蓝牙。

APP 功能界面说明
1. 安装
安装完成之后，请按要求输入正确的个人信息再与手表配对。
2. 数据面板
步数：查看总步数，卡路里，距离等
睡眠：查看历史睡眠数据（深度，浅度，清醒时间等）

心率：
（1）在APP开关设置中打开自动检测，手表不间断检测心率，每分钟统计一次平均值并记录在APP中。心率界面可以查看全天心率曲线图。

（2）也可以在APP端进行手动测试心率，点击图标，当测试出结果，请手动点击停止，这个结果不会保存在APP上。

血压：
（1）当你开启实时血压后，可在此界面查看全天血压数据，由手表每隔5分钟自动检测一次。

（2）点击图标进行单次手动血压检测（请保持静止直至得出结果），测试完成可选择保持或者不保存数据。在这个测试界面有两个模式：普通模式和私人模式。如需使用私人模式，请在APP设置中设置私人血压参考数据。

HRV：
手环正常连接和佩戴的状态下，默认从0点到8点时段，实时记录心跳间隔差异值，每分钟记录一次平均值。并绘制洛伦兹散点图，计算心脏健康指数。

洛伦兹散点图类型分析：
彗星型：正常成年人常见图形。
火箭型：常见于打鼾人群或呼吸暂停综合症患者。
梭型 ：常见于轻度心肌缺血患者。
长棒型：常见于冠心病患者。
榴弹型：常见于心悸或房颤病患者。
叉型 ：常见于充血性心力衰竭患者。
短棒型：常见于心律失常，阵发性室性心动过速患者。
鱼雷型：常见于窦性心动过速患者。

心电：
点击图标开启手动心电图检测，请保持食指按在手环侧面电极片上直至检测结束。测试 结果 会保存并显示到APP图标上。

疾病诊断：
窦性心动过速：常见于情绪激动，吸烟，饮酒等活动引起的心率失常人群。
窦性心动过缓：常见于运动员，老年人等健康成人。
心肌缺血：常见于冠心病患者。
房性逸搏：心房起搏点发出激动来控制心室。
房性早搏：房性期前收缩，经常是快速性房性心律失常出现的前兆。
室性逸搏：心室起搏点发出激动来控制心室。
窦性停搏：常见于咽部受刺激，器官插管，炎症，缺血等症状的人群。
室性早搏：室性期前收缩，常见于中老年人。
心房颤动：一种常见的快速心律失常，常见于60岁以上的人。
心室扑动：是严重的异位心律，常见于冠心病，心肌病患者。
交界性逸搏：是防止心室停搏的生理性保护机制之一，通常无需治疗。
交界性早搏：心律失常的一种类型。是一种特殊情况下出现的一次心脏提前跳动，并且引起这种跳动的冲动是在房室结形成的。
左束支传导阻滞：原发疾病所致，常见于40以上的人群。
右束支传导阻滞：原发疾病所致，常常由冠状动脉疾患、高血压、肺心病、心肌炎引起。

运动模式
1.GPS 运动
点击开始运动，并允许获取位置，运动过程中可试试查看运动轨迹，运动时间，速度，配速，卡路里。
2.手表运动
点击开始，手表进入自动运动模式，可查看实时心率，运动时间，卡路里，步数。

我的
我的设备：点击连接设备，点击已连接的设备可以设置以下功能
（1）信息提醒：选择打开各项提醒功能
（2）闹钟设置：设置闹钟时间，可设置20组闹钟。
（3）久坐提醒：设置提醒时段，间隔。
（4）心率报警：设置心率提醒上限。
（5）转腕亮屏：设置抬手亮屏功能。
（6）绑定设备：开启后将数据上传至云端。
（7）血压私人模式：打开开关设置私人血压参考水平。
（8）亮屏时长：设置亮屏时间长短和时段。
（9）开关设置：心率自动检测、血氧自动检测等功能的开闭。
（10）拍照：点击手环按键来遥控手机拍照。
（11）倒计时：设置倒计时的时间，和是否在手环上显示。
（12）重置密码：可以重置手环的配对密码，防止其它手机与手环配对。初始密码：0000。
（13）固件更新：更新手环固件。
（14）清除数据：手环恢复出厂设置。
（15）表盘设置：可以选择更换手环的主界面。

运动目标：设置每天的运动目标。
睡眠目标：根据个人情况设定睡眠目标。
单位设置：选择英制或公制单位。
微信运动：请按说明连接微信运动。

ECG+PPG+SPO2 Smart Watch

User Guide

Power On/Off
Power on: long press the button to turn on the device.
Power off: switch to the interface of power off, then long press the touch area to turn the device off.

Charge
It is a magnetic suction charging cable,please make sure the cable match the charge point correctly.

The structure

Wear Guidance
The best wear position is 1-2cm behind your wrist ulnar styloid, please make sure to wear the sensor close to wrist skin, in order to get accurate results.

Bracelet interface and functions
1. Time,date,&week
When the device has been connected with your phone，the clock, date and week will be auto-synchronized.

2. Pedometer, calories & distance
Steps, percentage of goal completed, calories burnt and distance will be shown on this interface.

3. Sleeping monitoring
Switch to this interface to view the duration of deep sleep and shallow sleep. Sleep duration and sleep quality needs to be set in app.

4. Heart rate monitoring
Switch to this interface, the bracelet will automatically start the single heart rate measurement mode, and the heart rate icon will flash until the test results are displayed.

5. Blood pressure monitoring
Switch to this interface, the device starts single BP measurement automatically with the icon of BP flashing.
It will remind with a vibration after measurement finished.

6. Blood oxygen detection
Switch to this interface, the bracelet will automatically start the blood oxygen test mode , and the icon will flash until the test results are displayed.

7. ECG test
Switch the bracelet to the ECG test interface and press the touch key for 3 seconds to enter the ECG test mode (please ensure that the electrode piece of the bracelet is close to the wrist skin and keep the skin moist to prevent the lead from falling off) until the test result is displayed.
The results of the test on the bracelet will not be saved in the app.

8. Sport mode
In the multi-function menu, long press to enter the exercise mode to view the exercise time, calorie consumption, real-time heart rate and steps. In this mode, you can switch the screen and select the pause, continue, and exit options. As shown in the figure below.

9. Other functions
In the multi-function menu, you can also enter stopwatch, countdown, information, and set function.

10. Power Off
Switch to this interface to view the device name and version number, Bluetooth ID. Long press the touch button to turn off the machine.

Parameter
Main chip: NODIC 52832
Sensor: SI1182
Screen Size: 1.54"TFT
Resolution: 240*240
Battery: 230 mAh
Waterproof grade: IP67
Standby time: 15 days
Support mobile system: IOS 8.0 or above, Android 4.4 or above
Heart rate detection: support
Blood pressure monitoring: support
Blood oxygen testing: support
ECG support test
Bluetooth version: 5.0

Note: this bracelet test data is only for reference, not for medical data.

About APP installation and Bluetooth connection
1. Turn on the device.
2. Turn on Bluetooth on your smart phone.
3. Scan the below QR or search “H band” APP in Google Play Store or Apple Store.

4. Open the app, click the connected device, and select the correct Bluetooth name from the list of connected devices, when successfully connected, the bracelet will synchronize the time, date and cycle of the mobile phone.

Bluetooth off
1. Disconnect Bluetooth in app.
2. Turn off the background operation of the mobile phone.
3. From mobile phone settings-Bluetooth-ignore or delete the paired bluetooth.

App function interface description
After the installation, please input the correct personal information as required, and then pair it with the bracelet.

Data panel
Steps: check the total steps, calories, distance, etc.
Sleep: view historical sleep data (depth, depth, awake time, etc.)

Heart Rate:
(1) Turn on the automatic detection in the app switch setting, and continuously detect the heart rate with the bracelet. Count the average value every minute and record it in the app. The heart rate interface can view the whole day heart rate curve.

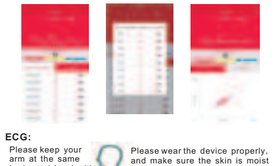
(2)You can also click the icon to test the heart rate on the app, when get the result , please click stop, and the result will not be saved on the app.

Blood Pressure:
(1)When you turn on the real-time blood pressure, you can view all data of a whole day, Blood pressure data is automatically detected by the bracelet every 5 minutes.

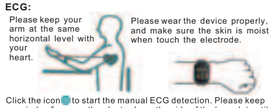
(2)Click the icon for a single manual blood pressure test (please remain still before testing is finished) you can choose to keep the result or not .
There are two modes in this test interface: normal mode and private mode. when use private mode, please set private blood pressure reference data in app settings.

HRV
HRV: When the device is properly worn,it will detect HRV every minute from 0:00-8:00, the data will be saved and shown on an app chart.

Lorentz Scatter Diagram:
Comet: common form for normal adults.
Rocket: common among snoring people or people with apnea syndrome.
Shuttle: common among patients of minor myocardial ischenia.
Baton: common among patients of coronary heart disease.
Grenade: common among patients with atrial fibrillation.
Fork: common among CHF patients.
Stub: common among people with large cardiac load, or normal people after drinking.
Rice:common among patients with arrhythmia,PVT in most cases.
Torpedo: common among patients with sinus tachycardia.



ECG:
Please keep your arm at the same horizontal level with your heart.



Please wear the device properly, and make sure the skin is moist when touch the electrode.

Click the icon to start the manual ECG detection. Please keep your index finger on the electrode on the side of the bracelet until the detection is finished.

The test results will be saved and displayed on the app icon.

Diagnosis of disease:
Sinus tachycardia: Its an abnormal heart rate caused by emotion, smoking, drinking etc.
sinus bradycardia: Common among snoring people or people with apnea.
Myocardial is chemia: it's common among CAD patients.
Atrial escape: The atrial pacemaker is activated to control the ventricle.
Premature atrial contraction: Also known as atrial premature beats (APB),is a common cardiac dysrhythmia characterized by premature heartbeats originating in the atria.
Ventricular escape: The ventricular pacemaker is activated to control the ventricle.
Sinus arrest: It happens among the people who have a pharyngeal stimulation.
Premature ventricular contractions is common among middle and aged people.
Atrial fibrillation: Often happens to the people over 60 years old.
Ventricular flutter: Among patients with CAD, myocardiosis.
Junctional escape beat: A protective mechanism for the ventricular pauses. Usually no need medical treat.
Junctional premature beat: A type of arrhythmia. A premature heart beat in some special cases
Left bundle branch block: Caused by underlying disease common among the people above 40 years old.

Movement mode
1. GPS movement
Click to start the movement and allow to get the position.
During the movement, you can try to check the movement track, movement time, speed, pace and calories.
2. Bracelet exercise
Click start and the bracelet will enter the automatic exercise mode to view the real-time heart rate, exercise time, calories and steps.

Mine
My device: click “Connect device”, click “connected device” to set up the following functions
(1) Message reminder: select to open the reminder function.
(2) Alarm clock setting: set the alarm time, and Up to 20 alarm groups can be set.
(3) Sedentary reminder: set the reminder period, interval.
(4) Heart rate alarm: set the upper limit of heart rate reminder.
(5) Turning wrist to light screen: set the function of raising hand to light screen.
(6) Bind device: upload data to the cloud after opening.
(7) Private blood pressure mode: turn on and set the private blood pressure reference level.
(8) Duration of bright screen: set the duration and time period of the screen.
(9) Switch setting: the opening and closing of automatic heart rate detection, automatic detection of blood oxygen, automatic blood pressure detection and so on.
(10) Photo: click the ring button to take photos by remote control.
(11) Countdown: sets the countdown time and whether it is displayed on the bracelet.
(12) Reset password: you can reset the matching password of the bracelet to prevent other mobile phones from pairing with the bracelet. Initial password: 0000.
(13) Firmware update: update the bracelet firmware.
(14) Clear data: restore factory settings.
(15) Dial setting: you can choose the main interface .

Exercise goals: set daily exercise goals.
Sleep goal: set sleep goal according to personal situation.
Unit setting: select English or metric units.
Wechat Sports: please follow the instructions to connect wechat sports.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna.
- -Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.