Small, Simple, Smart ECG Patch

S-PATCH EX

Medical grade heart monitoring and analysis solution

Lightweight and convenient
patch-type wearable device

Provide a comprehensive monitoring
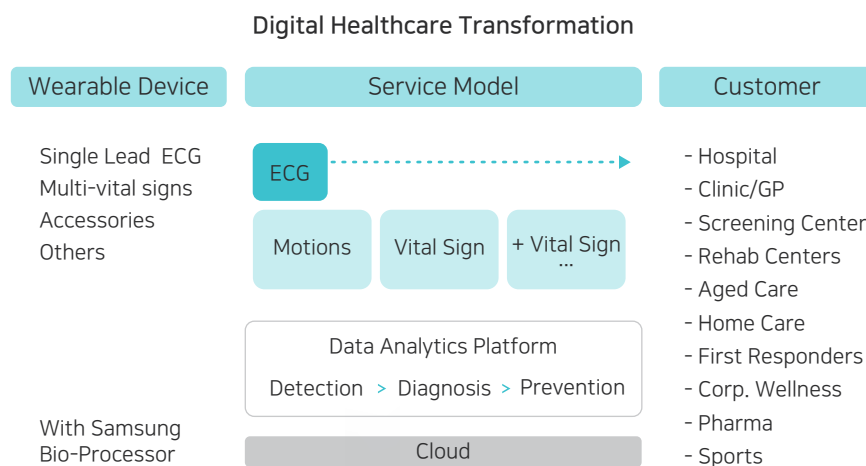and analysis solution

Wellysis
Wellness + Analysis

A SPIN-OFF company From SAMSUNG SDS

Vision
Leader in Transforming Healthcare from CURE to CARE

Mission
ECG-based Multi-vital-signs Analysis Solution Provider

Digital Healthcare Transformation

Wearable Device	Service Model	Customer
Single Lead ECG Multi-vital signs Accessories Others	ECG ----→ Motions | Vital Sign | + Vital Sign ... **Data Analytics Platform** Detection > Diagnosis > Prevention	- Hospital - Clinic/GP - Screening Center - Rehab Centers - Aged Care - Home Care - First Responders - Corp. Wellness - Pharma - Sports
With Samsung Bio-Processor	Cloud	

Recent achievements

· S-Patch Ex launched in over 14 countries

· Deployed to over 600 Hospitals and Clinics around the globe

· S-Patch Ex CE, MFDS, GMP Approved

· Awarded as 'Best of Bio Korea 2021' (Hosted by Bio Korea 2021)

· CE (+ISO 13485) for Europe, TGA, HSA, and FDA 510K in progress

· Awarded 2019 HIMSS ASIAPAC INNOVATION AWARD FOR ARTIFICIAL INTELLIGENCE

· Global Partners
   · Research   · Distributor   · Reseller   · Integration

GLOBAL CERTIFICATION

FDA 510(K) Cleared

CE 0068

식품의약품안전처 Ministry of Food and Drug Safety

ISO 13485

Australian Government Department of Health

BỘ Y TẾ MINISTRY OF HEALTH

HSA Health Sciences Authority

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

สำนักงานคณะกรรมการอาหารและยา Food and Drug Administration

S-PATCH® EX
Small, Simple, Smart ECG Patch

Innovation with patient centered design & engineering

Light weight & Small
- 9g – lightest on the market
- Smallest contact to skin
- Less noise detected (Fit for use during active movement or physical activities)

Latest Technology
- BLE 5.1
- Onboard Memory (no data lost)
- Waterproof (IP55)
- Motion sensor
- Samsung Next Gen Bio-Chip BP6

Flexible design
- Cable design enable vertical location for Lead II signal view
- Clear P-Wave
- Line connection minimize noise

Simple
- Easy to attach by patient (self patching)
- User friendly app connected using BLE
- Operate multiple functions with single button (Power on/off, Log symptom, Reset device)

Reusable
- 100% compatible with existing Electrodes on the market
- Disposable coin battery (saves unnecessary recharging time)
- Durable (reuse over 100 times)

Optional S-Patch lineup for varied test environments

S-PATCH EX Long Lead [1]

- Used for patients requesting stretched patch based on body types
- 2 times longer cable length
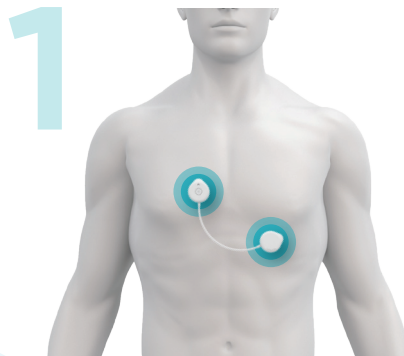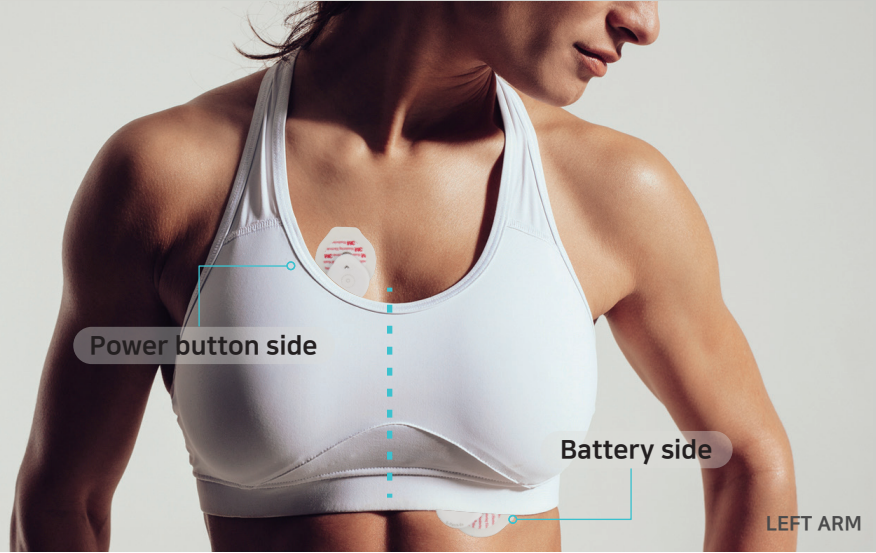- Prescribed after physician consulting

S-PATCH EXL [2]

- Performs prolonged ECG tests over 72 hours
- Battery life lasts up to 9 days
- Prescribed after physician consulting

[1,2] *in preparation for certification*

Solution

Power button side

RIGHT ARM

Battery side

LEFT ARM

1

Wear your S-Patch

Ultralight wearable patch
Most comfortable to wear and clear signal data captured with minimum noise

2

S-PATCH MEDI

S-PATCH EX

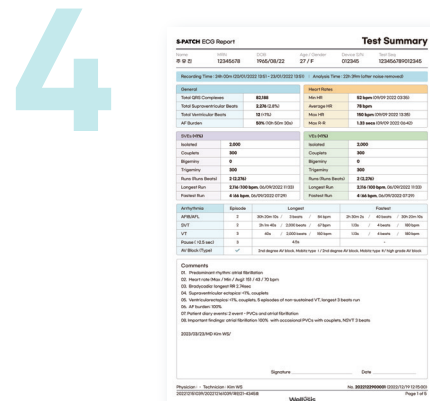### Connect to App

Synchronize ECG data to mobile device
Providing real-time ECG and personalization enabled data management

3

Cloud Server

Analysis Data

Cloud-based web portal
Secured access to data in any locations for clinicians to view, edit and diagnose patients' ECG

4

Report Analysis

ECG analysis for clinicians
Easy-to-read report including clinical information identical to original Holter test, improved by type and time of cardiac symptom occurred to patients
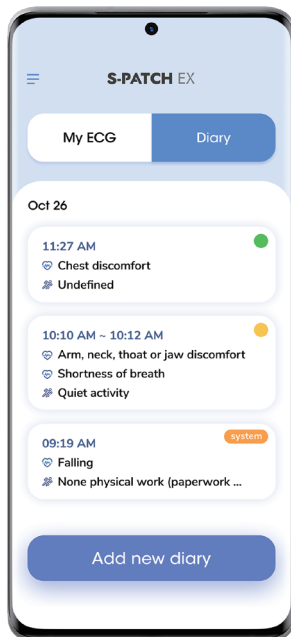
S-PATCH® EX

S-PATCH EX

My ECG | Diary ¹

Max 131

Min 57

Check your symptoms

⚡ Chest Pain | 〰 Palpitation
◉ Dizziness | 💨 Short Breath
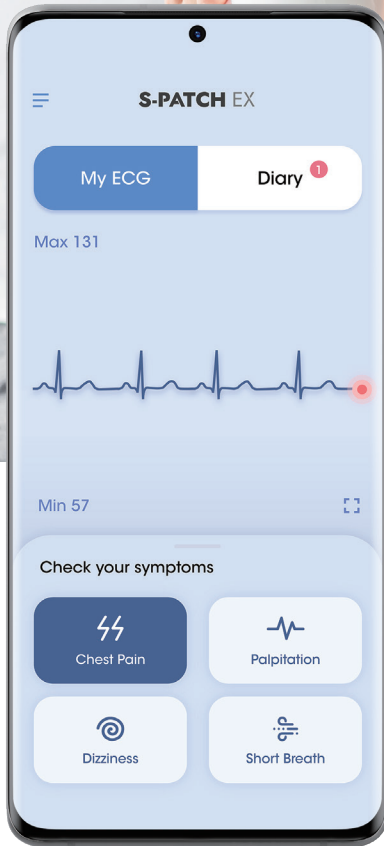
Step1.
Start ECG recording / Log your symptoms
Monitor your real-time ECG graph, HR, HRV level on the app
Tap on one of the four major symptoms to quickly log your symptom

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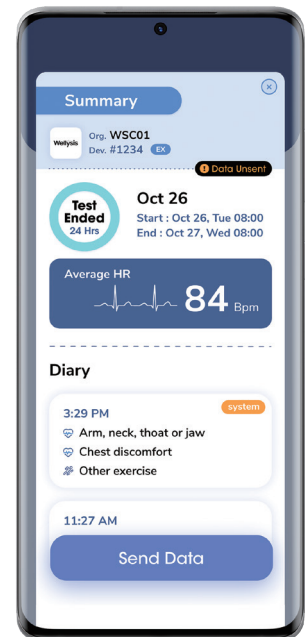
S-PATCH EX

My ECG | Diary

Oct 26

11:27 AM 🟢
💬 Chest discomfort
🏃 Undefined

10:10 AM ~ 10:12 AM 🟠
💬 Arm, neck, thoat or jaw discomfort
💬 Shortness of breath
🏃 Quiet activity

09:19 AM `system`
💬 Falling
🏃 None physical work (paperwork ...

Add new diary

Step2.
Enter Patient Diary
Add and track your symptom and activity records on the diary

Test status

Wellysis — Org. WSC01 — Dev. #1234 `EX`

🕐 **TEST** 8h 24min left | ✴ **Bluetooth Conneted** | 🔋 **79%** 1d 3h remaining

🟢 Recording

76% Recorded
Oct 26
Start : Oct 26, Mon 08:00
End : Oct 31, Tue 08:00

Pause Test

❎ End Test

⚙ Setting
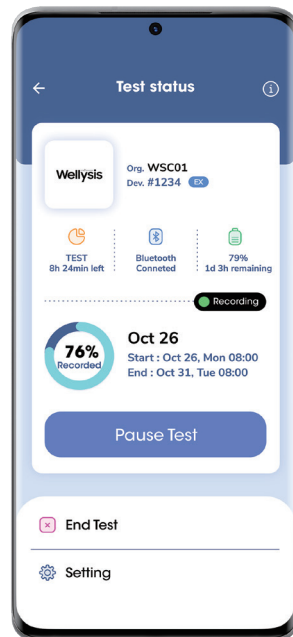
Step3.
Check Your Device Status
Find out your current test status, bluetooth connection, and battery level

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Summary ✕

Wellysis — Org. WSC01 — Dev. #1234 `EX`
🟠 Data Unsent

Test Ended 24 Hrs
Oct 26
Start : Oct 26, Tue 08:00
End : Oct 27, Wed 08:00

Average HR 〰 **84** Bpm

Diary

3:29 PM `system`
💬 Arm, neck, thoat or jaw
💬 Chest discomfort
🏃 Other exercise

11:27 AM

Send Data

Step4.
Send Data
Send to S-Patch Ex Web for analysis of your ECG data

S-PATCH® MEDI³

S-PATCH APP FOR PHYSICIANS
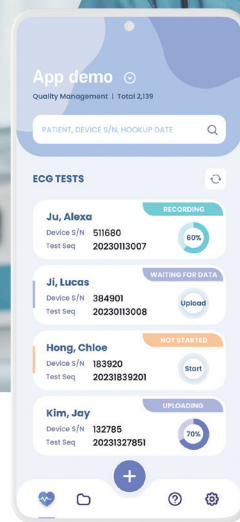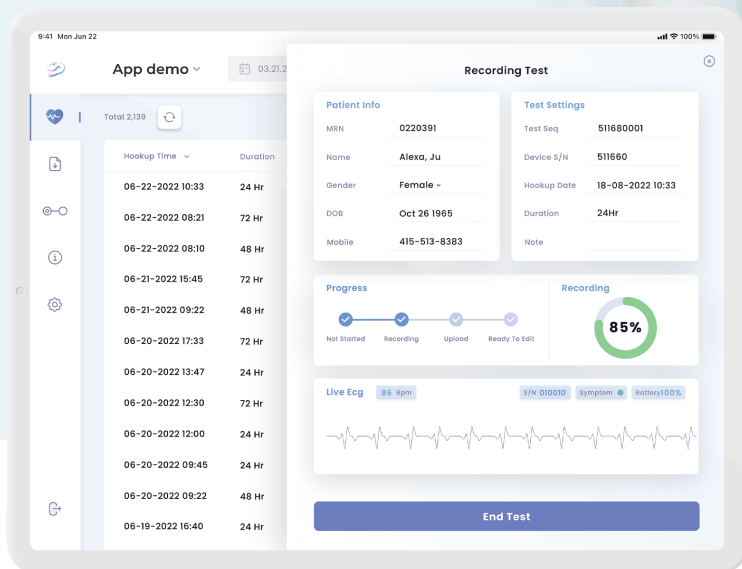
MULTIPLE TEST CONTROLS WITH A SINGLE TABLET

Inpatient Monitoring
Track & Control all in-bed patients with one tablet

Rehab Center
One rehab doctor/coach managing multiple patients in one session with one tablet

Nursing Home
Smartphone-free tests for elderly patients

Intuitive Dashboard View	Consistent Test Management	Simultaneous Test & Upload control

Patient: Burdenless smartphone-free tests

· Able to test with S-Patch only during the prescribed test period
· Record symptom with the device power button

Physicians: Efficient test controls
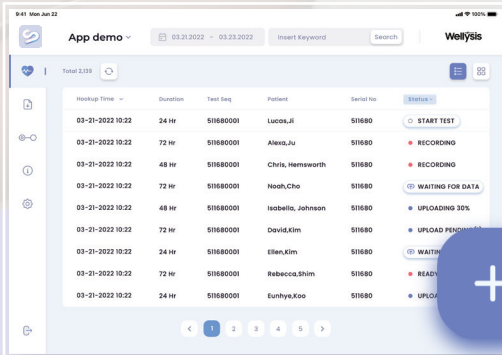
· Access to entire test procedure with a single tablet: Create, Start, Edit, Delete, End, and Upload test
  After data upload, proceed with the next step on the Web Portal
· Able to manage multiple test status and data uploads

³ *in preparation for certification*

S-PATCH® MEDI

S-PATCH APP FOR PHYSICIANS

Test Dashboard

View and manage your test list
Create, search, edit and delete tests in a single dashboard
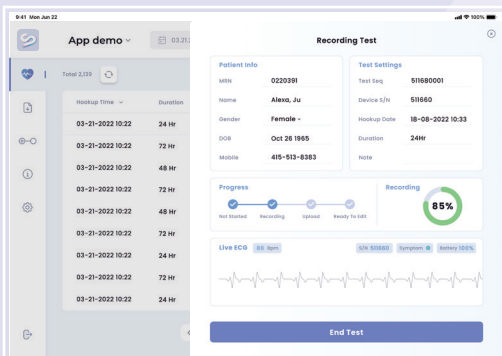
Create Test

Create Test Seq and enter test information to start a test with the app
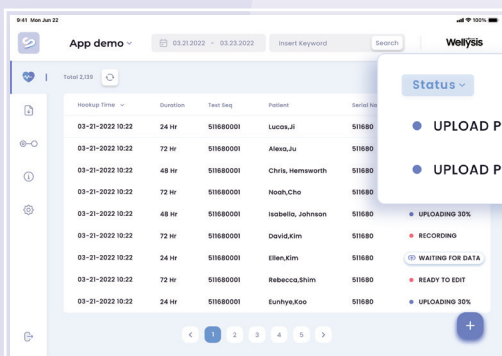

Live Test Control

Connect multiple S-Patch devices to check Live ECG, symptom registration, and battery level

Upload Scheduling

Upload multiple test data by scheduling uploads

Use Cases

Ambulatory care

Quick & Easy Diagnosis

1. Patients with heart related symptoms such as palpitation, shortness of breath, syncope, etc., visits hospital or primary care doctor

2. Doctor prescribe ECG test (including duration)

3. Nurse help patients to wear S-Patch Ex and begin the test

4. Patients return to home and wear during prescribed days

5. S-Patch App will automatically end the test and upload the test based on prescribed duration

6. Once the test is available on the cloud with analysis completed

7. Doctor checks the test from the cloud and finalize the diagnosis and generate clinical report

Hospital Universitario
12 de Octubre
SaludMadrid

Health Checkup

Detect & Prevent

1. Visit Health Checkup center

2. After full checkup wear S-Patch & go home

3. 2 days later app automatically uploads test and test is analyzed

4. Return the device back to the center via mail

5. Receive clinical report signed by Cardiologist

SAMSUNG **SAMSUNG MEDICAL CENTER**

Please refer to cardiologist if an arrhythmia is suspected

Sports

Know your potential

1. Before exercise wear S-Patch

2. Continuously monitor ECG during exercise

3. Check real-time ECG using phone or watch

4. Mark type of exercise using Patient diary

5. After completion of exercise, upload data to the cloud

6. Once the analysis is completed check for abnormality during each session

THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

Telemedicine

My Cardiologist online

1. During Teleconsultation doctor prescribes ECG test to the patients

2. S-Patch is delivered to patients' home with instructions to wear S-Patch

3. After test is completed (prescribed days), S-Patch app automatically uploads to the test to the cloud where the test is analyzed and annotated by the system

4. Return the device back to the center via mail (or purchase device for more test)

5. Follow-up teleconsultation is scheduled, and test results is shared with patient by the doctor

Please refer to cardiologist if an arrhythmia is suspected

intellicare

Wear it. Be healthy.

Wellysis is a digital healthcare solution company,
a spin-off from Samsung SDS

S-Patch powered by Samsung Bio-Processor was awarded
HIMSS ASIAPAC INNOVATION AWARD FOR ARTIFICIAL INTELLIGENCE

If you want further information about Wellysis S-Patch Ex solution,
please contact info@wellysis.com, or access www.wellysis.com

Actual Size

S-Patch Ex
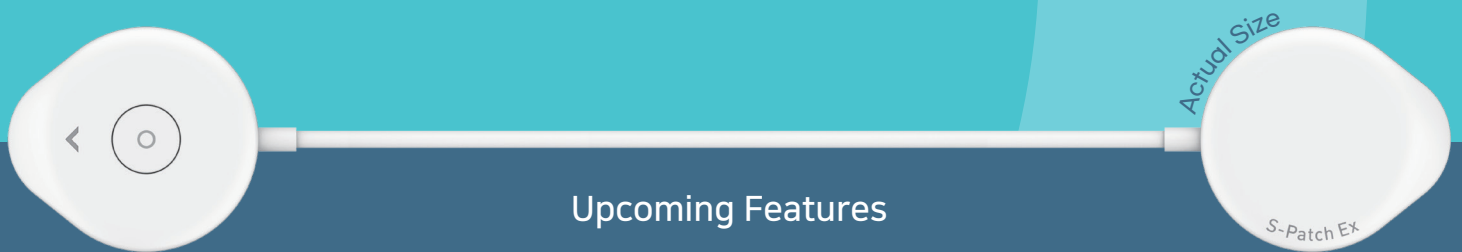
Upcoming Features

Real-time AI

Multi- Sensors

Personalization

Integration

Wellysis