SCI

Software Convergence Institute Co., Ltd.

Empowering Better Health With Digital Intelligence

EDLDN01
EDL Doctor Terrapay
EDL Doctor Care Ring

Software Convergence Institute

Software Convergence Institute(SCI) is a leading healthtech company pioneering new possibilities in digital healthcare by combining non-invasive biosignal measurement technology with advanced AI analytics.

SCI's top priority is to lower the barriers to chronic disease management and to create an environment where individuals can easily monitor and continuously manage their health in everyday life.

We continuously conduct evidence-based clinical studies and technology validation in collaboration with medical and research institutions, grounded in data reliability and security.

Mission

Delivering precise and safe digital health solutions

Predict Early Personalize Care

Global services driven by innovation

Key Challenge

Solving the challenges of chronic disease management through contactless, non-invasive, and AI-powered technology

SCI integrates contactless and non-invasive biosignal measurement technologies with AI to go beyond fragmented health management—creating an innovative digital healthcare ecosystem that enables early prediction of disease progression and delivers proactive, personalized care to patients.

Core Technology

SCI possesses proprietary, end-to-end technological capabilities that encompass the entire digital healthcare process—from contactless and non-invasive biosignal acquisition, data analysis, and AI model training, to in-house server operation and personalized health feedback delivered through web and mobile interfaces.

1

Biosignal sensing and processing (BCG, PPG)

2

AI-powered data processing and predictive model development

AI

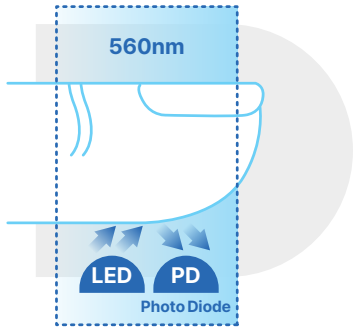
3

Operation of AI analytics servers and data protection systems

4

Web and mobile-based user feedback and services

1-1



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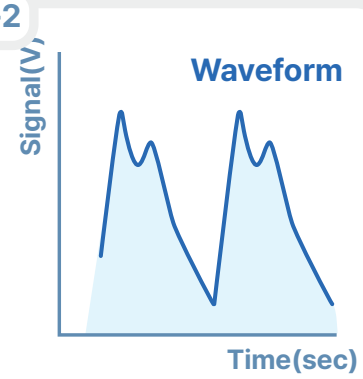
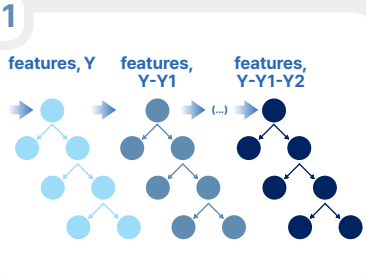


2-1



Main Product

BCG (Ballistocardiography) Sensor and Business Model

The BCG(Ballistocardiography) sensor is an innovative biosignal measurement technology that precisely detects the body's subtle micro-movements caused by cardiac contractions in a contactless manner.

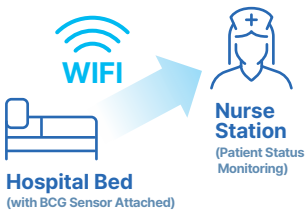
EDLDN01

HR | RR | SV | HRV | Away from seat

Communication: Wi-Fi

B2B

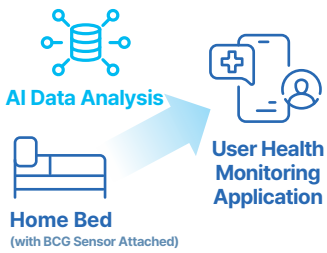
Hospital Patient Monitoring Service



- Contactless Real-Time Patient Monitoring System
- Continuously measures vital signs while the patient remains in bed
- Provides real-time biometric data to medical staff
- Enhances clinical workflow efficiency and maximizes patient safety

B2C

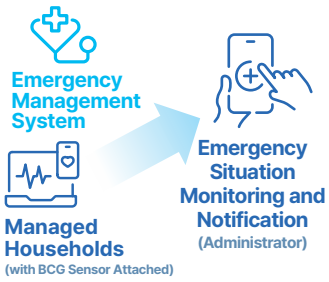
Personal (Home) Health Management Service



- Installed in the user's bedroom or resting area
- the system collects biometric data while the user sleeps or rests
- The collected data is analyzed by AI to generate sleep quality reports and provide personalized health coaching
- It supports lifestyle improvements for chronic disease management and encourages users to take proactive steps toward better health.

B2G

Community Senior Emergency Response Service



- Installed in the homes of seniors and vulnerable individuals
- Detects emergencies such as prolonged inactivity or sudden changes in vital signs
- Sends instant alerts to administrators
- Secures the golden time to build a stronger social safety network

PPG (Photoplethysmography) Sensor-Based Product

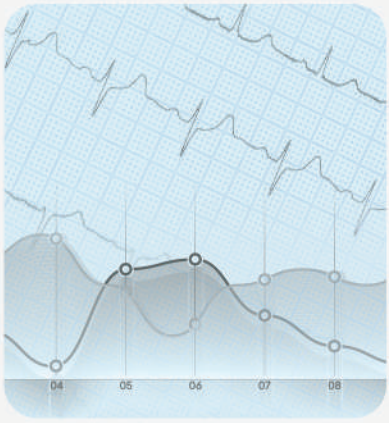
The PPG (Photoplethysmography) sensor detects biosignals by emitting light of specific wavelengths onto the skin and measuring changes in the amount of reflected light caused by variations in blood flow. Leveraging this technology, SCI provides an innovative, non-invasive, and discomfort-free AI-based glucose monitoring solution.

EDL Doctor Terrapay Non-Invasive Glucose Monitor

EDL Doctor Terrapay, a non-invasive glucose monitoring device, utilizes a PPG (Photoplethysmography) sensor operating at a wavelength of 560 nm to collect user data over a one-minute period.
This data is then processed by an AI analytical model, which interprets complex biosignal variations to estimate blood glucose levels.
Based on the analyzed results, the system provides users with daily and monthly measurement records, as well as personalized health feedback derived from the analyzed PPG signals.

Communication Method: Bluetooth
Power Supply: Built-in Battery

1 Measure PPG Signal for 1 Minute

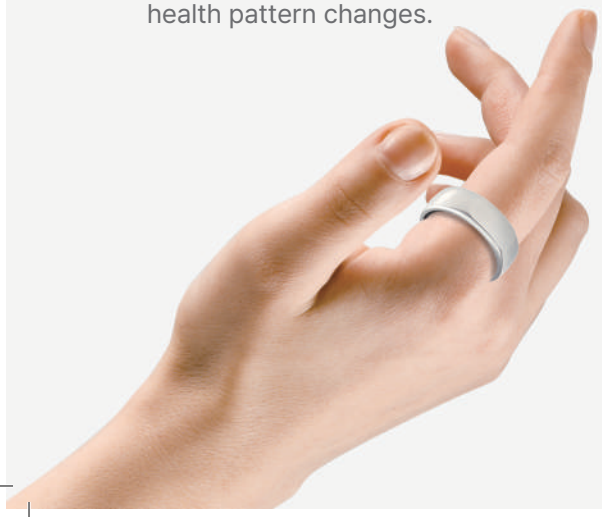


2 AI Glucose Analysis from Extracted PPG Signals

3 User Feedback from Analysis Results

EDL Doctor Care Ring Continuous Health Monitoring

The device is designed in the form of a ring worn on the body, enabling continuous biosignal measurement through a PPG sensor in a 24-hour, lifestyle-integrated manner.
Data is analyzed at 15-minute intervals, providing near real-time insights.
Using continuously collected heart rate, activity, and sleep data, along with glucose trend analysis, the system employs AI-driven precision analytics to comprehensively identify daily health pattern changes.



Global Partnership Strategy

Domestic Partnership

Expanding the patient monitoring solution market through partnerships with hospitals and long-term care facilities.

Collaborating with smart home service providers to broaden the healthcare service platform market.

Global Expansion Strategy

The global demand for non-invasive glucose monitoring is increasing due to population aging and the growing number of diabetic patients.

Compared to conventional invasive glucose meters, SCI's AI-driven, personalized health management service offers greater convenience and differentiation, securing a strong competitive advantage.

GOAL

Expanding into mental health, blood pressure monitoring, and insurance-linked services to evolve into a global digital healthcare total solution company.
Through the worldwide adoption of our non-invasive blood glucose monitoring technology,
we aim to free humanity from the burden of chronic diseases.

History / Certificate

- **2016** Established Software Convergence Institute Co., Ltd.
- **2020** Certified as an Affiliated Research Institute
- **2021** Obtained KC Certification for 3-Axis Ballistocardiography (BCG) Sensor
  Launched B2G Emergency Monitoring Service for Seniors Living Alone
  Acquired Clinical GMP Certification for Medical Devices
- **2022** Acquired Clinical GMP Certification for Medical Devices
- **2023** Approved for Clinical Trial of Class II Cardiotachograph
  Selected for Deep Tech TIPS Program by the Ministry of SMEs and Startups
- **2024** Acquired Manufacturing GMP Certification for Medical Devices
  Obtained Manufacturing License for Class II Cardiotachograph
  Licensed as a Certified Medical Device Manufacturer
  Secured Investment from Korea SMEs and Startups Agency (KOSME)
- **2025** Acquired Manufacturing Certification for Class II Pulse Meter
  Acquired Digital Medical Device GMP Certification
  Registered Patent: Non-invasive Blood Glucose and Blood Pressure Measurement using PPG Senso

Digital Medical Device GMP Certificate of Conformity

Certificate of GMP

ISO 13485 Certification

Medical Device Manufacturing License

Medical Device Manufacturing License for Ballistocardiograph

Certification for Manufacturing Pulse Rate Medical Devices

Intellectual Property (IP)

No.	Category	Registration Number	Title
1	Patent	10-1927705	Patient Management System Using Contactless Biosignal Measurement
2	Patent	10-2352801	Method and System for Predicting Diabetes Using Ballistocardiography (BCG) Signals
3	Patent	10-2352802	Method and System for Predicting Arrhythmia Using Ballistocardiography (BCG) Signals
4	Patent	10-2517533	Blood Pressure Measurement Device Using Ballistocardiography (BCG) and Artificial Intelligence (AI) Technologies
5	Patent	10-2777078	Blood Glucose and Blood Pressure Measurement Device Using PPG (Photoplethysmography) Sensor
6	Design	30-1269849	Blood Glucose and Blood Pressure Monitor
7	Trademark	40-1767156	EDL-1004
8	Trademark	40-2413928	EDL 1004 Terrapay
9	Trademark	40-2413926	EDL-1004-APM

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