

Company Overview

2020



WE ARE A COMPANY BASED ON

© 2019. Life Science Technology Inc. All right reserved



[LIFE] &



[TECH]

DISCLAIMER



-
- This document is confidential, for your private use only, and may not be shared with others (other than your advisors) without Life Science Technology Inc.'s written permission.
 - This document is a property of Life Science Technology Inc. If the reader of this document is not the intended recipient, the employee or agent responsible for delivering it to the intended recipient, please discard this document immediately. Any dissemination, publication or copying of this document is strictly prohibited.
 - This document is for discussion purposes only. Life Science Technology Inc. does not hold any legal responsibility or obligation for contents of this document. Life Science Technology Inc. is not an expert on, and does not render opinions regarding, legal, accounting, regulatory or tax matters. You should consult with your advisors concerning these matters before undertaking the business proposals.

Mar. 2020

Contents

1. Introduction
2. History
3. Organization
4. Key member
5. What we do | Wearable & Bio-signal
6. Product Portfolio | Healthcare
7. Product Portfolio | Social Safety
8. Mid & Long term plan

1 Introduction

- Life Science Technology Inc. has been conducting various project related with bio-signal more than 10 years.

| | |
|-------------------------|--|
| Established date | Jul 01, 2007 |
| Business Area | Wearable & Biological Identification Bio-signal solution for health, sports, medical and surveillance |
| CEO | Jeonghwan Kim(Founder, Major shareholder) |
| Vision | A trusted company that creates the value of 'customers' through people-oriented innovation |
| Address | Suite B1207, Ganseo Hangang Xi Tower 401 Yangcheon-ro, Gangseo-Gu, Seoul 07528, KOREA Homepage : http://www.lstgrp.com |
| Main Project (2018) | 1. Banana Thermometer, FEMON(http://www.myfemon.com) 2. TEMS, EM Systems and COIMS (All-in-One Ankle Bracelet, Home Detention/Curfew, Victim Protection, and Correctional Intelligence Moving System)(http://www.opticonkorea.com) 3. Bioprocessor(Samsung) |
| Corporate Certification | Venture Business(No.20140102975), R&D Center(No.2010110756), INNOBIZ(No.140105-00551) KONEX(285770), Medical device manufacturing(No.4516), ISO 9001:2015 (18-Q-2895-00), Excellent Employment Environment (No.2018-0021) |
| Capital | 1,500,000,000(KRW, 1\$ 1,000KRW) |

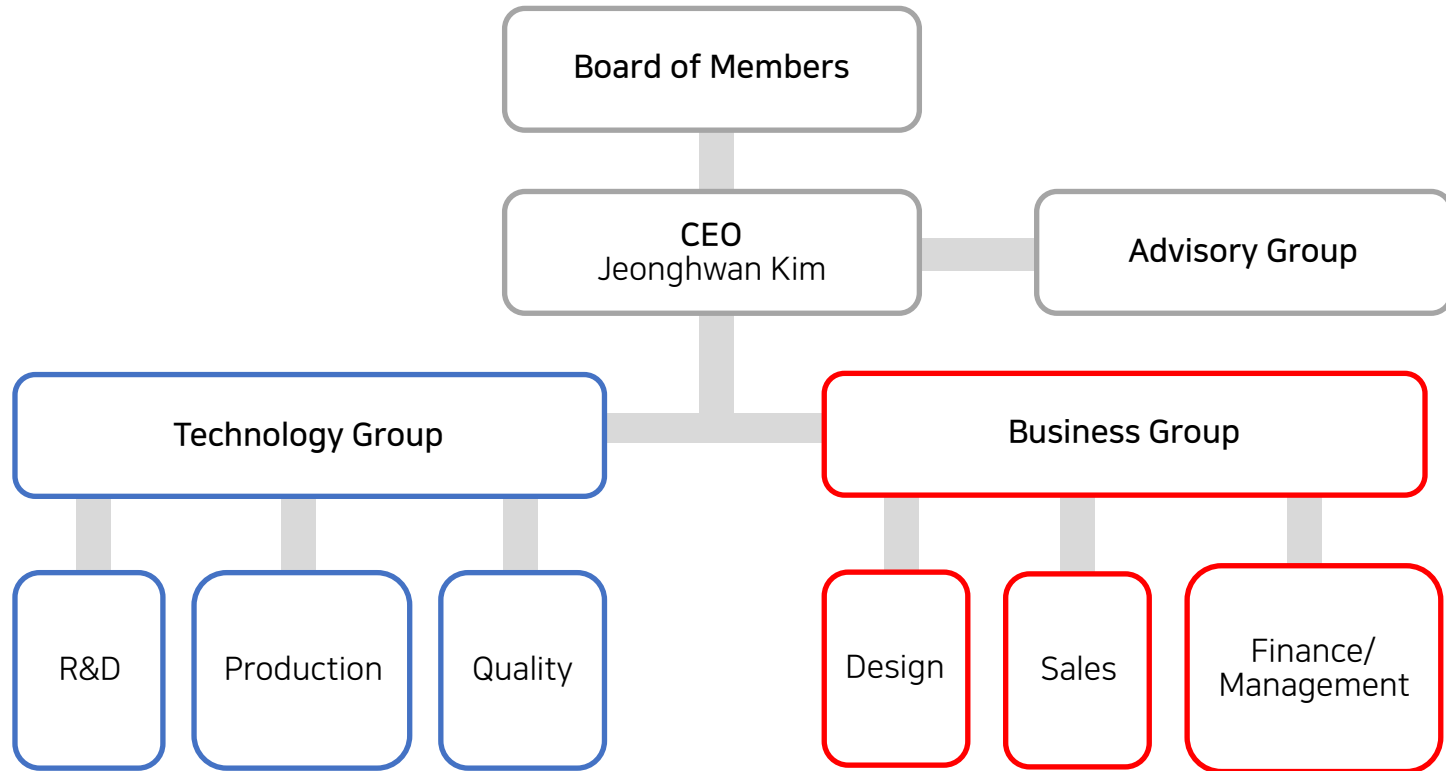
2 History

- 2007 – 2010 : **Start up**, partnership and research
 - ▶ Established Life Science Technology Inc.
 - ▶ Started at National Research Project(7 cases, Grant : 800,000,000KRW)(1\$=1,200KRW)
 - ▶ Research project of healthcare steering wheel with Hyundai Motors
- 2010 – 2015 : **Identity**, Expansion of cooperation and development
 - ▶ National Research Project(11 cases, Grant : 4,200,000,000)(1\$=1,200KRW)
 - ▶ Development of healthcare steering wheel with Hyundai Motors
 - ▶ Patents registrations(12 cases)
 - ▶ Relocation of H.Q to Gangseo, Seoul
 - ▶ Various clinical test for healthcare devices with St. Mary and Seoul University Hospital(BIA, BP)
- 2015 – Current : **Unique**, Sales and new challenge
 - ▶ National Research Projects(3 cases, Grant : 2,000,000,000)(1\$=1,200KRW)
 - ▶ Development of smart healthcare watch with Samsung using Bioprocessor(BP5, BP5A, BP6P, BP6A)
 - ▶ Launched Banana Thermometer
 - ▶ Entered KONEX(285770, 2017.12.21)
 - ▶ Acquired Good Design award and reddot design award(FEMON Banana Thermometer)
 - ▶ Awarded for Hi-Seoul Excellent Product and Brand(FEMON Banana Thermometer)
 - ▶ Launched Opticon brand for intelligent social safety
 - ▶ Commendation from the Ministry of Justice of Republic of Korea (Opticon)
 - ▶ Delivery of home detention curfew for juvenile to the Ministry of Justice



Ministry of Justice

3 Organization



4 Key members



Jeonghwan Kim/CEO

- Inje Univ.(Biomedical Engineering, M.S.)
- Korea Research Institute of Standards and Science(Researcher)
- Korea Highway Corporation, road institute(Research fellow)
- Samsung Advanced Institute of Technology(Researcher)
- LAXTHA Inc.(Co-founder, CTO)
- Hanbyul Meditech Co., Ltd.(CTO)



Kyujin Choi/Legal Affairs/Director

- Seoul National Univ.(Pharmaceutical Science, B.S.)
- Korea Univ.(Department of law, M.S.)
- Seoul Central and Suwon District Court (Judge)
- Kim & Chang lawyer office(Lawyer)
- C&P lawyer office(Representative lawyer)



Minjoon Choi/Business Group/Managing Director

- Inje Univ.(Biomedical Engineering, B.S.)
- Hanbyul Meditech Co., Ltd.(Representative QA/QC)
- Hanbyul Meditech Co., Ltd.(Planning Director)



Ilhoi Yu/Overseas clinical test/Advisory

- Pittsburg Univ.(Information Science, M.S.)
- Drexel Univ.(Information Science and Technology, Ph.D.)
- International workshop on biomedical and Health informatics(Chairman)
- Missouri Univ.(Associate professor of health informatics)
- Missouri Univ.(informatics institute, Core faculty)



Edgar Yeo/Creative Designer/Director

- Barking College(Product Design, B.S.)
- Top 20 designer in KIDP
- Design specialist in KIDP

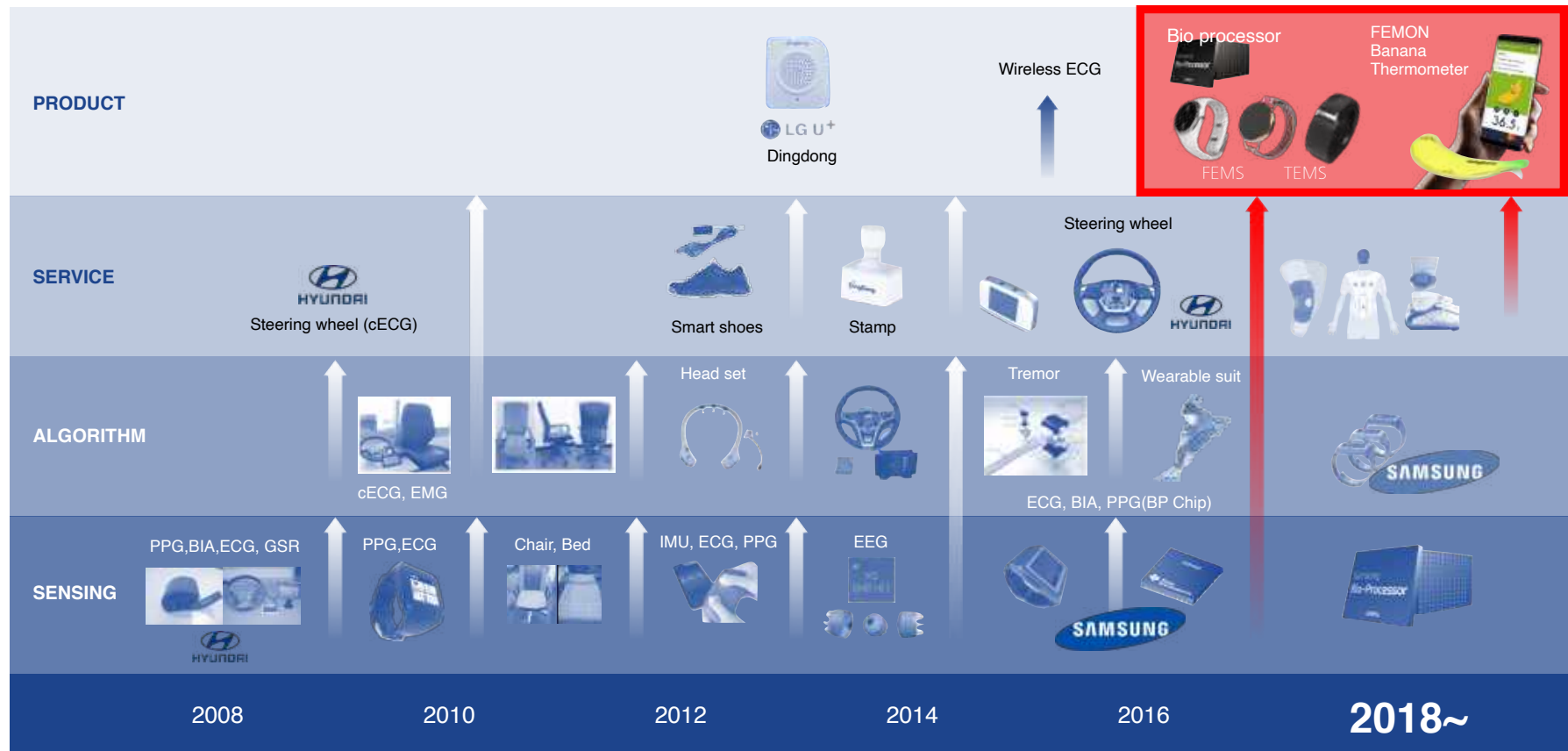


David Bychkov/Overseas Business/Advisory

- European Graduate School(Ph.D.)
- Professor of holographic cinema, Director of the laboratory of Psychophysiology
- Exmovere Holdings Inc. (CEO)
- European Graduate School, UCLA Professor

5 What we do | Wearable & Bio-signal

- Development of wearable bio-signal devices which can be used in daily life
- Development of products providing various feedbacks valuable health information to users through continuous (24/7) bio-signal data collection & analysis



6 Product Portfolio | Healthcare

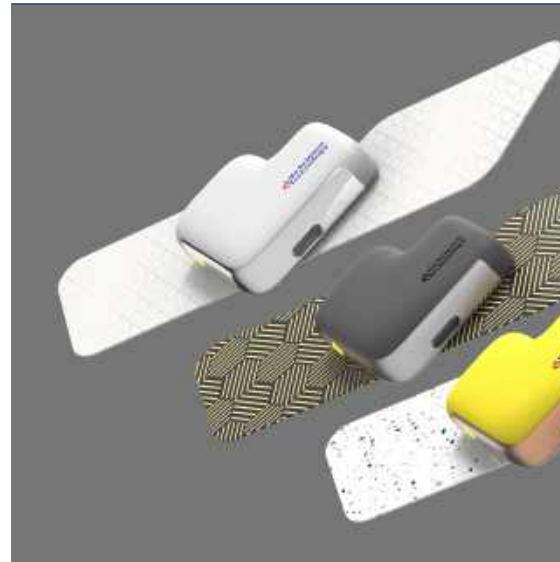
FEMON



Body temperature-based products

- Banana Thermometer
- Fertility prediction patch

Bio-processor



BP-based products

- BSD100 | BP Evm
- CBP | Continuous Blood Pressure
- Stress Measure Patch

Automotive



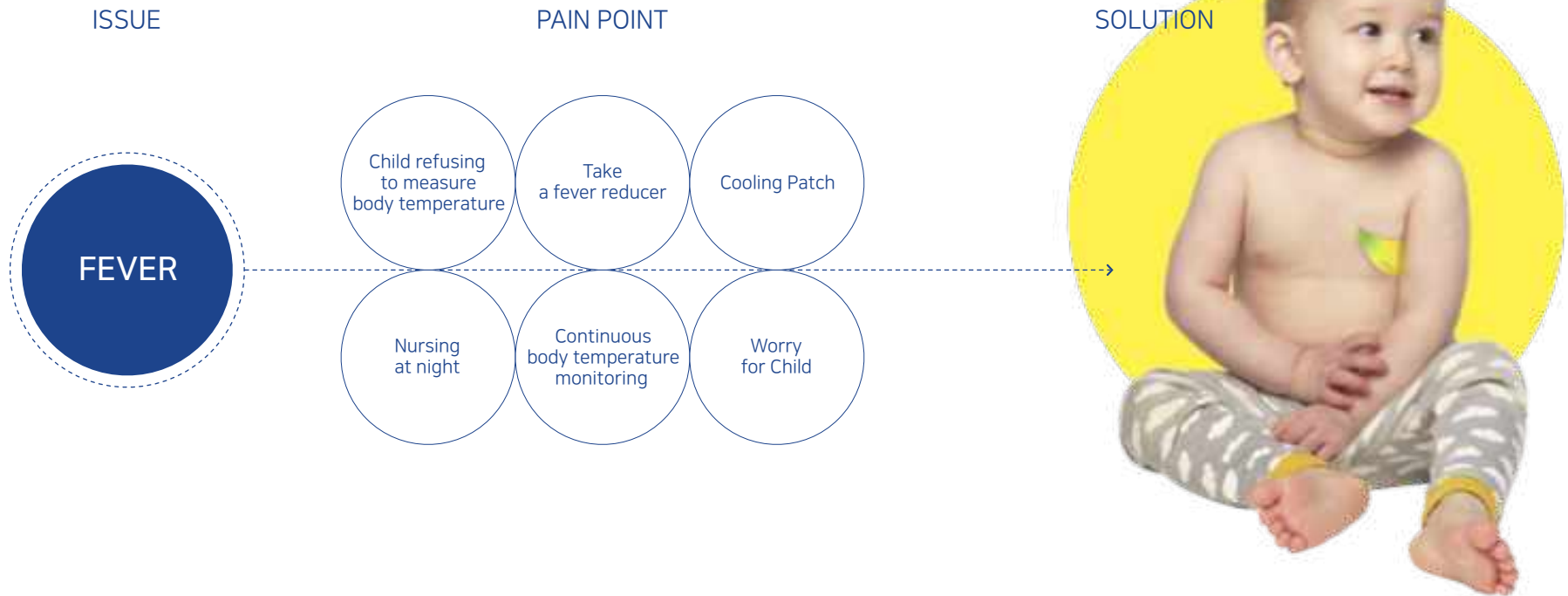
Automobile Products

- Healthcare Steering wheel
- Hands on Steering wheel(HOD)

6.1 FEMON | Banana Thermometer(Product Level)



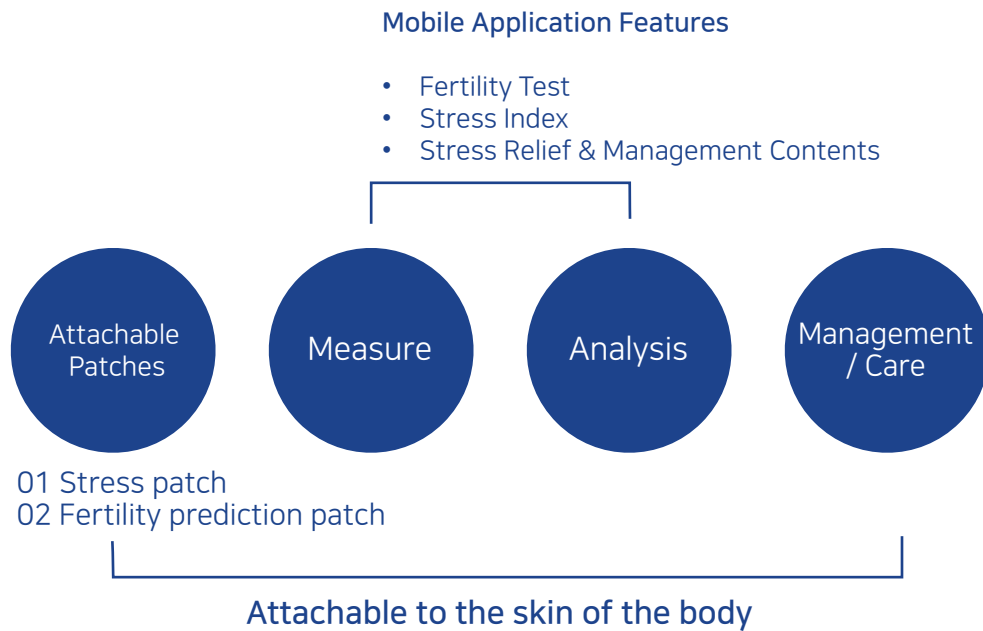
- Provides convenient solution to improve PAIN POINTS in special conditions of fever
- Attachable to the skin under the armpit to measure the body temperature in conjunction with the app
"First Attachable Electronic Thermometer in Korea"



6.2 FEMON | Fertility prediction patch(Development Level)

- Health care products and services that can be attractive to overseas markets
- Development of a biometric support device that can help couples with planning pregnancy

Fertility prediction system



Design



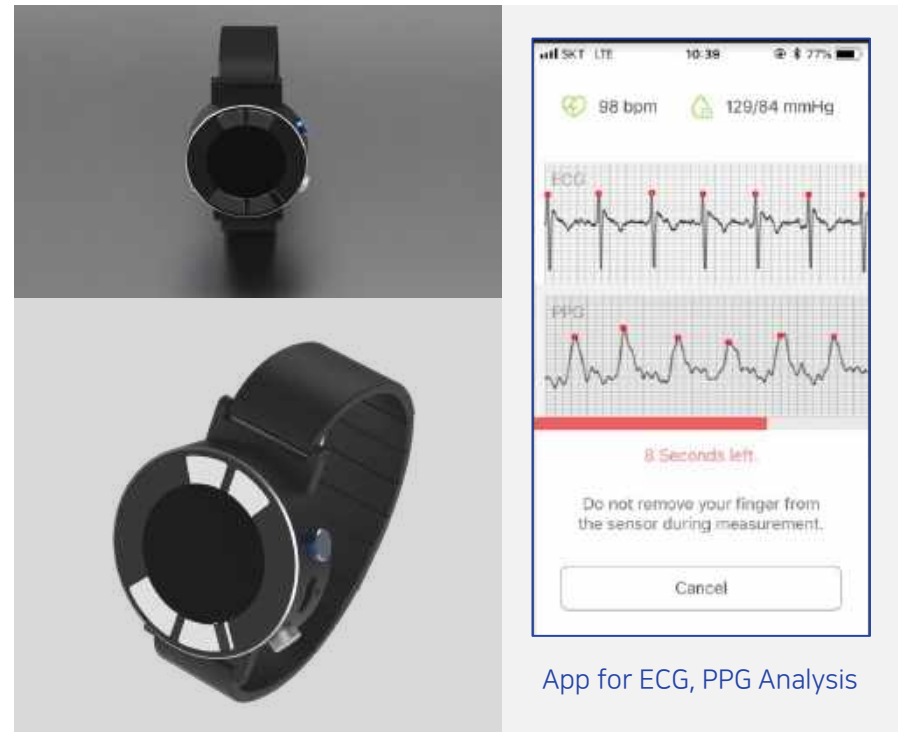
6.3 BSD100 | BP Evm(Pre-Product Level)

- ECG, PPG, BIA & GSR
- Made for for functional test and algorithm development of bio-processing

Spec.

- ① BIA Electrode (IOUT0,VSENSE0)
- ② BioCon Connector
- ③ 0.96" 128X64 OLED
- ④ GSR(Pout, Nout) TOP/ECG(INP, INN, RLD) TOP/PPG(TOP:SFH7050)
- ⑤ Power Switch or Switch 1
- ⑥ Boot Switch or Switch 2
- ⑦ Reset Switch
- ⑧ GSR(Pout, Nout) BOTTOM/ECG(INP, INN, RLD) BOTTOM
- ⑨ PPG(BOTTOM :NJR5513)
- ⑩ BIA Electrode (IOUT1,VSENSE `)
- ⑪ Skin Temperature(SI7051)
- ⑫ Micro USB(Charge Port/USART 0)

Design



App for ECG, PPG Analysis

6.4 CBP | Continuous Blood Pressure(Development Level)

- ECG, PPG, BIA Measurement
- Heart Rate, Continuous Blood Pressure & Body Fat Measurement

Design



Software Application



6.5 Stress Measure Patch(Development Level)

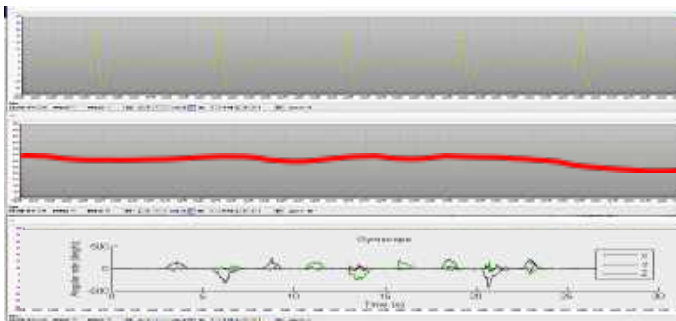
- Stress analysis by measuring electrocardiogram, body temperature, and IMU
- Development of algorithm combining electrocardiogram and motion signals
- Recommendations of personalized stress management and relief methods by stress analysis

01 Stress Measure Patch



02 Data Measurement

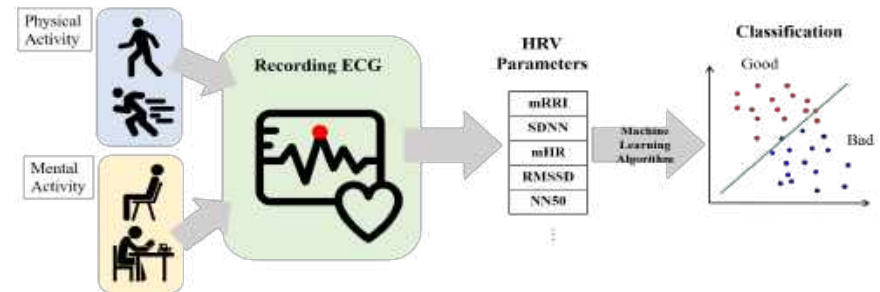
ECG



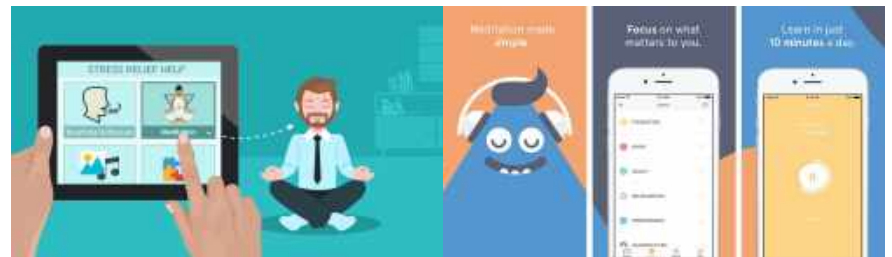
Temp

IMU

03 Positive/Negative Stress Analysis Algorithm



04 Stress Management & Relief Contents through Mobile Apps



6.6 Automotive

Healthcare Steering wheel



- Measuring data : ECG, PPG & BIA
- Application : Body Fat, Personal Identification, Heart Disease, Drowsiness & Continuous BP

Hands on Steering wheel(HOD)



- Measuring data : Capacitive Sensor & ECG
- Application : Hands on/off, Personal Identification & Heart Disease

6.6.1 Automotive | Healthcare Steering wheel(1/2)(Pre-Product level)

- Personal Authentication, Health Monitoring & Stress Analysis
- Steering wheel integrated with healthcare features consists of 3 parts (Sensor, Hardware, Software)

Structure



Functions

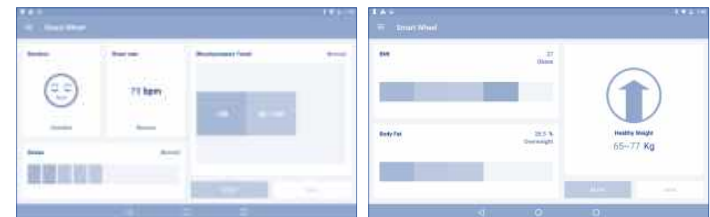
- Sensor



- Hardware



- software



6.6.2 Automotive | Hands-on Steering wheel(1/2)(Pre-Product level)

- Autonomous Driving Assistance System
- Hands on Steering Wheel(HOD) consists of 3 parts (Sensor, Hardware, Software)
- ECG (Personal Authentication & Health Monitoring)

Structure



Functions

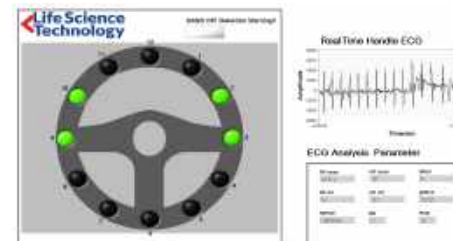
- Sensor



- Hardware



- software



6.7 Healthcare algorithms roadmap

LST Technical Skill

Hardware Design Competency

- Low power PPG drive circuit design
- Design and operation of LED driver
- Various sensor drive and analysis circuit

Algorithm Design Competency

- PPG Characteristic Point Detection Design
- PWA
- Continuous BP
- PTT & PWV
- IMU Pattern Analysis, Stress Analysis

Certification & Clinical Test

- KFDA, CFDA, CE, FDA
- Clinical test design & analysis





Ministry of Justice

7 Product Portfolio | Social Safety

OPTICON

Intelligent Social Safety

OPTICON P

Smartband



OPTICON C

Electronic Ankle Bracelet



OPTICON J

Home Detention Curfew



OPTICON V

Victim Protection System



Production in Action
Korea Probation System

- Smart Correction System (Opticon P)
- Electronic Monitoring System(Opticon C)
- Home Detention Curfew(Opticon J)
- Victim Protection System(Opticon V)



7.1 Opticon P | Smart correction System (Pre-Product level)

- Our system provides secure solution for all types of indoor and outdoor correctional facilities
- Our solution enable prison staff to monitor and track inmates, detect illegal activities, isolate and control violent incidents, and prevent intrusion to secure areas

Our Solutions include:

- 1. Smart band**
: HeartRate, PPG, ECG, IMU, BLE5.0, IP68
- 2. UWB-based location tracking**
: High Accuracy(+/-30cm) & real-time positioning
- 3. Control System (Web-based management)**
- 4. Fiber optic cable to sense and record real-time signals along the entire length of the facilities without any blind points.**
- 5. Kiosk in inmates' room :**
check money kept in custody,
Request any services
(medical, visitation, purchase, etc.)





7.2 Opticon C | Electronic Monitoring System (Pre-Product level)

6th Generation EM Device

- Most Advanced Technology Integration with AI & IoT
- Solving the human rights violation problem



Improved Overall Features

- Ergonomic design with reduced weight and size
- Improved battery life and location tracking
- Integration of AI & IoT technologies
- Remote Lock/Unlock control

Strong and Durable

- Hard to damage and cut
- Any attempts to damage the device are detected and reported immediately to the monitoring center



7.3 Opticon J | Home detention curfew system (Product level)

Latest Technology

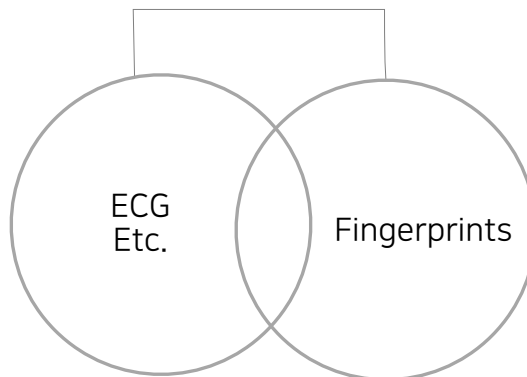
- Biometric authentication by ECG and Fingerprint ID
- Precise and accurate indoor(home) location positioning using UWB and AI assistance
- LTE CAT. M1 communication protocol
- Improved battery life and convenience of charging method



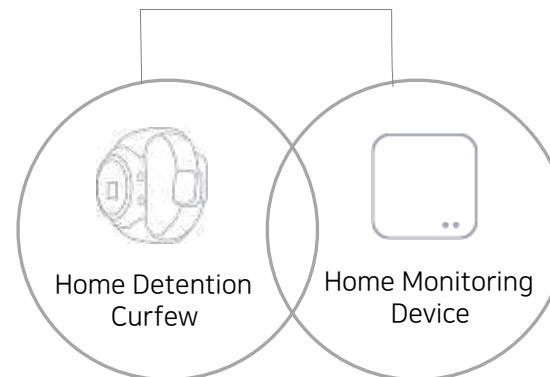
1.Positioning



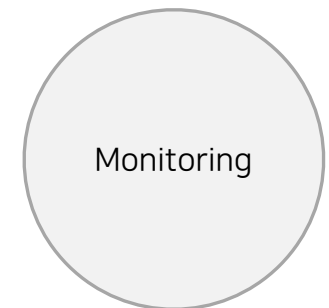
2.Biometrics using



3.Checking the Status



4.Monitoring



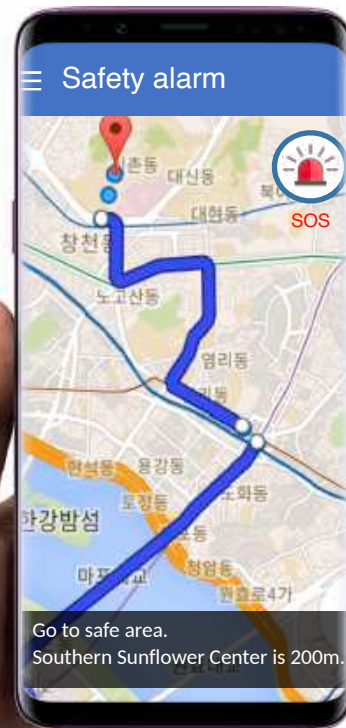


7.4 Opticon V | Victim Protection System (Development level)

IoT Device for Victims



Victim Protection: Mobile Application Police Service



Victim's Device and Application

- Integrated with Ankle or Wrist bracelet EM devices for location tracking and proximity between offenders and victims
- AI integrated solution to predict any sign of offender's deliberate approach and assault to victims
- Calculates and analyze distances and behavior/ approach patterns assisted by AI and reports to monitoring centers
- Restraining/Removal of offenders from victims by communication with nearby patrols and police officers

7.5 Opticon | Brand



OPTICON

Intelligent Social Safety

For more information, <http://www.opticonkorea.com>

8 Mid & Long-term Plan

- Entry into the KONEX market
- We aim to expand into the KOSDAQ market by 2023 through continuous sales growth.



THANK YOU
