

TAEHA

Taeha Mechatronics Co.,Ltd.

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COMPANY OVERVIEW

Taeha Mechtronics Co.,Ltd.

CEO	Sang Hee, Lim
Foundation	1995. 1. 26
Business	Industrial control parts, Sports goods
Location	Anyang, Gyeonggi-do, Republic of Korea
Employees	95
Revenue	\$16 million (USD) (2021)



Organization

- R&D : 37persons
- QC/Production : 35persons
- Sales / Management / Planning : 23persons

COMPANY HISTORY




1995~2004

- 1995**
 - TAEHA MECHATRONICS CO.,Ltd. was founded in 1995
 - TAEHA**
 - Developed Mode Selection Controller for excavator
- 1996**
 - Established R&D Center
 - Developed treadmill for exercise tolerance
- 2000**
 - TAEHA MECHATRONICS moved offices and manufacturing facility to Anyang, South Korea
 - STEX brand launched
 - Developed automatic control unit for excavator of Hyundai Heavy Industrles
 - 
- 2002**
 - Developed Hyundai Heavy Industry Teaching Pendant
- 2004**
 - Certificated ISO9001:2000

2006~2015

- 2006**
 - Developed and started mass production of ECU for mid-size excavator
 - 5 million (USD) export tower achieved
- 2007**
 - TAEHA MECHATRONICS moved offices and manufacturing facility to larger location in Anyang, South Korea (Current address)
- 2007-2015**
 - Developed and started mass production of ECU, cluster, monitor, telematics, rotary switch, ETC (Excavator & Wheel loader & Fork lift)

2019~2022

- 2019**
 - Acquired IATF16949 certification
 - Registered as Volvo CE Group partner and development projects in progress
 - 
- 2020**
 - Registered as Daedong group partner and development projects in progress
 - 
 - KONVIS, off the shelf products division brand launched
 - KONVIS**
- 2022**
 - Registered as LSMtron partner and development projects in progress
 - 

OUR BUSINESS

Electronic parts Division



KONVIS Division



STEX Division



CURRENT STATUS OF TECHNOLOGY

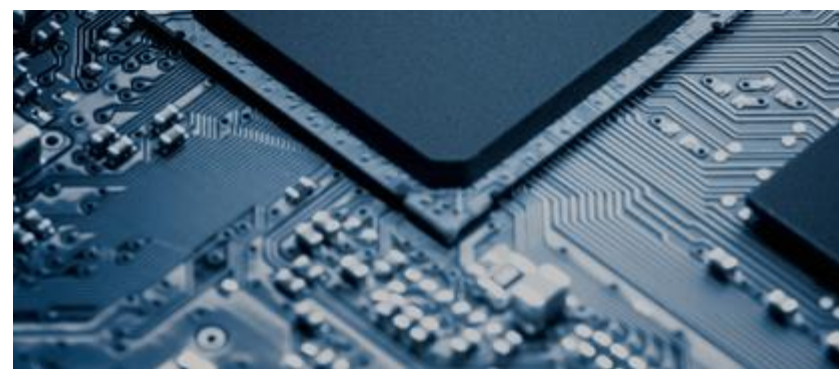
| What we do

Mechatronics Control



Machine Control
Motor Control
E&E Control
Robot Control

Engineering Competences



Hardware & System Design
Product Design
UI/UX Design

Operating System Scope



RTOS (C++)
Linux
Android
Window CE
CODESYS

Network & Telecommunication



Telematics Management System
FMS (Fleet management System)
Connected Vehicle Solution

MASS-PRODUCED PRODUCTS

1st Generation



EXCAVATOR S1
MCU(1995)



EXCAVATOR S2
MCU(1995)



EXCAVATOR S3
MCU(1997)



EXCAVATOR S5
MCU(1997)

2nd Generation



EXCAVATOR S7
MCU(2000)



Wheel Loader
S7MCU(2002)

3rd Generation



EXCAVATOR S9
MCU(2007)



Wheel Loader S9
MCU(2008)



Fan Drive Control
Unit(2010)

4th Generation



EXCAVATOR F-SERIES
MCU



EXCAVATOR F-SERIES
MCU

MASS-PRODUCED PRODUCTS

Remote Management Control System

- Location Information
- Alarm Alert
- Status of equipment by MCU to RMCU
- Geo-fencing / Time-fencing / DTC
- FOTA(F/W over the air)



Robot / Teach Pedent



TP300 MP (2001)



TP510 MP (2012)



TP511 MP (2014)

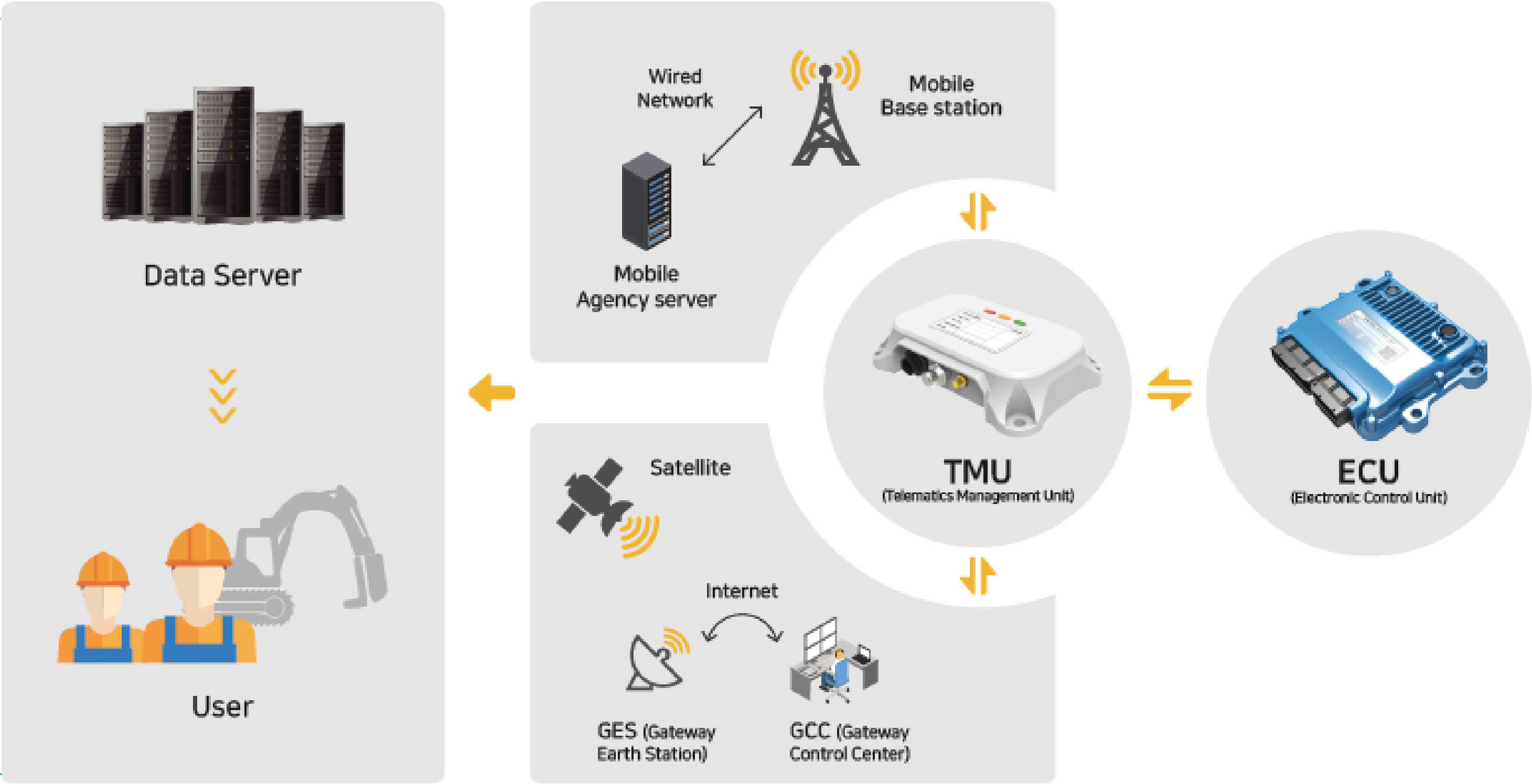


TP520 MP (2015)



TELEMATICS MANAGEMENT SYSTEM

YELLOW TRACE



USER INTERFACE ASPECT



관리자 (Administrator)



유지보수 (Maintenance)



YELLOW TRACE



판매자 (Dealer)



최종사용자 (End-User)



MASS-PRODUCED PRODUCTS

Wheel loader



F-Series Wheel loader Cluster
2.7inch LCD Touch



F-Series Wheel loader Monitor
7inch LCD Touch

Excabators



F-Series Excavator COU
HVAC
Navigating Display by haptic control



F-Series Excavator MCU
Hydraulic pump control

Fork lift



Compact
Electric folk lift
2inch LCD Touch



Mid-size
Electric folk lift
3.5inch LCD Touch



Mid-size
Electric folk lift
4.3inch LCD Touch



5.7inch Monitor



9s large folk lift Cluster
4.3inch LCD Touch



7inch Monitor
4ch Camera

MASS-PRODUCED PRODUCTS



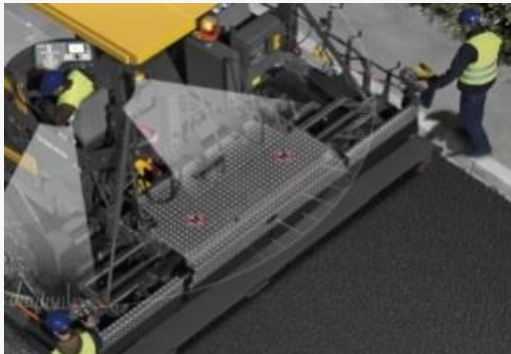
F-Series Excavator MCU
4.3inch LCD Touch



F-Series Excavator MCU
7inch LCD Touch



F-Series Excavator MCU
7inch LCD Touch



F-Series Excavator MCU
proposal



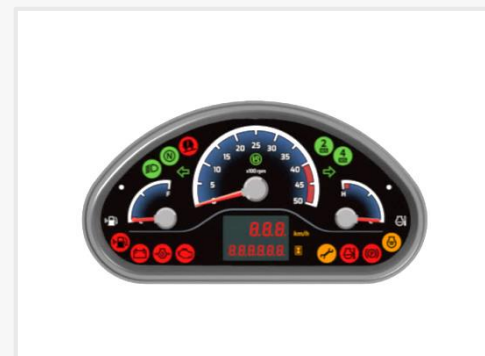
F-Series Excavator MCU
4.3inch LCD



F-Series Excavator MCU
10inch LCD Touch



F-Series Excavator MCU



F-Series Excavator MCU

MASS-PRODUCED PRODUCTS



Flat Series CUBE

HMI 4.3 inch Display

The Flat Series - CUBE is 4.3" TFT LCD with direct bonding display for use on small off-highway vehicle, construction, and agricultural equipment. CUBE is compact size of off-the-shelf display as well as IP67 rating for protection and has the function of visualizing the vehicle parameters on the display.



Key Features

Item	Specification	Item	Specification
Model	Working voltage: 9~16VDC Supply voltage: 12VDC or 24VDC Operating temperature: -40~+85°C Storage temperature: -50~+100°C	Interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422)
USB	4.3" Color Display (TFT-LCD) Resolution: 480x272 / 320x180 and 800x480 Backlight: LED, 12VDC/100mA Dimensions: 100x100mm	Connection	2-wire / 4-wire / 5-wire
Option interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422)	Display	4.3" Color Display

Dash Series UNO

Basic Instrument Cluster

The Dash Series - UNO is basic type of instrument cluster which is sleek and robust design, and has highly readable typography itself. This is ideal solution in common use for various off-highway vehicle, construction, and agricultural equipment as well.



Customizable front design, bezel, and LCD UI design to suit customers needs



Up to 16 hard buttons to the maximum

Key Features

Item	Specification
Model	Working voltage: 9~16VDC Supply voltage: 12VDC or 24VDC Operating temperature: -40~+85°C Storage temperature: -50~+100°C
General	4.3" TFT-LCD Normally white Transmissive TFT-LCD Resolution: 480x272 / 320x180 and 800x480 Backlight: LED, 12VDC/100mA Dimensions: 100x100mm
Interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) CAN/RS422, CAN/RS485, CAN/RS422 CAN/RS422, CAN/RS485, CAN/RS422
Connection	2-wire / 4-wire / 5-wire
Display	4.3" Color Display
Option interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422)

Trace Series RS1

Rotary Switch

The Trace Series - RS1 is basic rotary switch controller which allows navigating display integrated with custom-built 6 hot-keys. RS1 makes it easy for driver to operate the function of cabin controlling multi-function knob and hot-keys.



Multi-function Knob
- Push function to select the menu
- CW/CW 360° rotation to move menu and adjust value

Custom-built 6 hot-keys

Key Features

Item	Specification
Model	Working voltage: 9~16VDC Supply voltage: 12VDC or 24VDC Operating temperature: -40~+85°C Storage temperature: -50~+100°C
General	4.3" TFT-LCD Normally white Transmissive TFT-LCD Resolution: 480x272 / 320x180 and 800x480 Backlight: LED, 12VDC/100mA Dimensions: 100x100mm
Interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) CAN/RS422, CAN/RS485, CAN/RS422 CAN/RS422, CAN/RS485, CAN/RS422
Connection	2-wire / 4-wire / 5-wire
Display	4.3" Color Display
Option interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422)

Dash Series DOT

Circular Cluster

The Dash Series - DOT is compact circular cluster which its diameter 103 mm and IP66 rating for protection. This is ideal solution for off-highway and compact size of construction and agricultural equipment.



Customizable front design, bezel, and dial plate UI to suit customers needs
- Diameter: ø102 / External frame: ø112
- 20 hard buttons



Key Features

Item	Specification
Model	Working voltage: 9~16VDC Supply voltage: 12VDC or 24VDC Operating temperature: -40~+85°C Storage temperature: -50~+100°C
General	4.3" TFT-LCD Normally white Transmissive TFT-LCD Resolution: 480x272 / 320x180 and 800x480 Backlight: LED, 12VDC/100mA Dimensions: 100x100mm
Interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) CAN/RS422, CAN/RS485, CAN/RS422 CAN/RS422, CAN/RS485, CAN/RS422
Connection	2-wire / 4-wire / 5-wire
Display	4.3" Color Display
Option interface	RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422) RS485 (CAN/RS422, CAN/RS485, CAN/RS422)



STEX DEPARTMENT

| Treadmill / Bike / Elliptical / Weight Equipment



S24 SERIES



S25U SERIES



S25R SERIES



S25E SERIES



Ergonomic movement trajectory system
(Patent registration Number: 10-0499232)



NO.1 in Korea



PRODUCT DEVELOPMENT PROCESS CHART

Plant Facilities



Plant Site: 2,600 m²
Manufacturing facilities: 6,300 m²
Other area: 4,040 m²

4F R&D / Planning Dep. / Sales

3F Production Line (Electronic parts)

2F Sales / QC / Customer support

1F Production Line (Fitness equipment)



· R&D



· Design House



· Development & Verification



· Production Line



· Test & Inspection



· Bench Test



· Shipping



· Packaging



· Aging

INTELLECTUAL PROPERTY RIGHTS

1. Patent

- Camera module (No. 10-1480166)
- Medical robot base with improved braking structure (No. 10-1376544)
- Medical robot base with improved steering structure (No. 10-1376543)
- Multi-mode dial device (No. 10-1369927)
- Treadmill that outputs the number of steps or runs in letters, numbers, and voice (No. 0379018)
- Electromagnetic braking device and ergometer using it (No. 0389478)
- Exercise information provision system using the Internet and its operation method (No. 0398958)
- Elliptical (No. 0499232)
- Exercise device with improved exercise load control performance (No. 10-0944809)
- Intelligent composite motorcycle (No. 10-0974341)
- Registration of rotation operation conversion device (No. 21-134472)
- Provides an interface for display device and user settings
Display system application (2021.10.08)·
- Application for industrial vehicle telematics system (2022.03.04)

2. Practical Design

- Bike saddle adjustment device (Utility Model No. 20-0410965)

3. Design registration

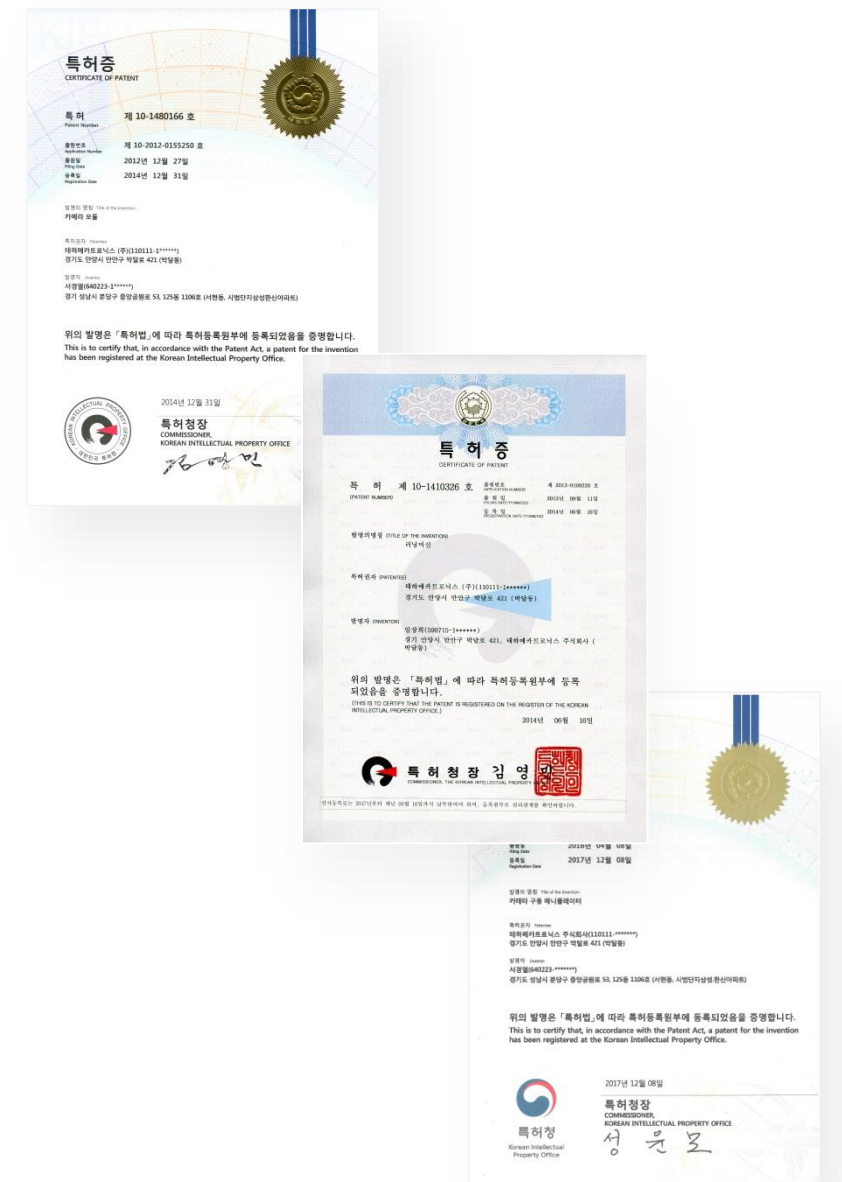
- Commercial treadmill design registration (No. 219564)
- Home treadmill design registration (No. 0238127)

4. Trademark registration

- INTERTRACK trademark registration (No. 0511331)
- FITPIA trademark registration (No. 0502339)
- STEX trademark registration (No. 0025159)
- KONVIS(2020.02.12)

5. Product Design registration

- Display device application (2021.12.27) - Dot product
- Display device application (2022.02.23) - Cube product
- Display device application (2022.04.21) - Duke product



CERTIFICATION HOLDING STATUS

- INNO-BIZ company confirmation
- Venture business certification (R&D part)
- ISO 9001 (renewed in 2015)
- Designated as an excellent sports equipment manufacturer (Ministry of Culture, Sports and Tourism)
- CE for home and commercial treadmills (1997 to present)
- ETL certification
- TUV certification
- KISS quality certification (Korea Sports Science Research Institute)
- K mark certification (Korea Industrial Technology Testing Institute)
- KC safety certification (all products)
- ISO 14001 (April, 2019)
- IATF 16949(September, 2019)



5 branches in domestic
Over 30 countries in overseas



THANK YOU