Convenient and Safe wearable barcode scanner · Smart Solution

FACNROLL

Wearable Hands-free Barcode Scanner

Standard

Coated Safety Gloves

Anytime anywhere
Regardless of time and place

Easy to use
Easy for operator to use

2 Types of Wearable Gloves

Convenience
Easy to use after wearing

Safe
Safe for the operator

Band Type

Velcro-type Band Gloves

Wearable Accessory

Waist Holder

Neck Holder

Wearable Barcode Scanner

You can freely scan in a hands-free style by attaching/detaching the barcode scanner on gloves and ring holder.

Labor-friendly Products

While maintain the existing task as is, the operator makes a task environment allowing convenient and safe operations.

AI Cloud · Application

Business is innovated through data collection and analysis utilizing AI technology and diversified applications.

Human errors shall be reduced and work efficiency shall be enhanced.

Improvement of operator safety & convenience

Reduction of human errors

Shortening of scanning time & moving distance

Improved quality & reduced cost

Increased work efficiency & increased productivity

Diversified areas of utilization

Manufacturing
Smart Factory

Logistics
Smart Logistics

Distribution
Smart Retail

Smart Manufacturing
ERP·MES

- It is applied for overall production process such as quality, process, production, shipment and inventory.
- Intellectualized AI technology and S/W enable the operation to be efficient production line.
- Effective management of production process shall reduce defect rate and improve productivity.

Smart Logistics
WMS·TMS

- Entire processes such as stocking/releasing, inspection. Packing, tracking, inventory, etc. are managed in the optimum states.
- Scanning shall be carried out in a large warehouse without any spatial constraints.
- Warehouse shall be technically and systematically managed with data-based logistics system.

Smart Distribution
SCM·POS

- It is applied to distribution tasks such as ordering, procurement, sale, shipping, delivery, etc.
- Hands-free work environment shall effectively save time and resources.
- Customers' service shall be faster and more convenient with reduced working hours from the application of the high technology and system above.

Major features

FACNROLL

VS

	Product	
Wearable Barcode Scanner	Product	Handheld Barcode Scanner
Hands-Free, Reel Holder	Type	Handheld
2.0 x 1.7 x 0.7 in, 1.4 oz	Appearance	6.0 x 2.5 x 3.3 in, 5.3 oz
1D, 2D Barcode	Scanning	1D, 2D Barcode
Black and White Photo(es) Taking Functions	Features	-
Smart Solution Services	S/W	-

Maximized Numbers of Continuous Scanning	Shorten Scanning Time	Reduced Errors of Scanning	Decreased Scanning Time per Scan (Only for Handsfree Type)
12,000 Times	**50**%	**30**%	**5** Seconds

Convenient Attachment and Detachment of Barcode Scanner

**Application of Scan Buttons on Smart Gloves**

Labor-friendly Products
Certification and Patent of Technology on Performance

Certified with the Compatibility Registration on Equipment for Broadcasting Communications

Electromagnetic Compatibility Test Report

Patent Certificate

Registered Patent Holder **14**Case	
Applied and Certified Patent Holder **2**Case	
· Industrial Handsfree Barcode Scanner	
· Intelligent Production Process Management Device	
Program Registration **10**Case	

1

1D/2D Barcode Reading

1D barcode such as UPC, EAN, and etc. and 2D barcode such as QR Code, Data Matrix, PDF-417 shall be scanned and paper labels and digital bar code reading shall be read.

1D   2D
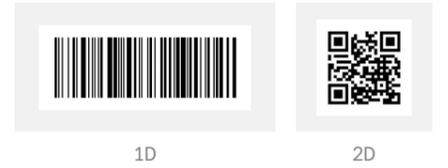
2

Long-lasting Battery

Scanning efficiency with the overloaded scanning is enhanced with 700mAh battery and lithium polymer batteries makes safety and energy efficiency sound.

Fully Charged within 2 Hours   13 Days Successive Use   16 Days Successive Waiting

Based on 1,000 times a day   Based on 1,000 times a day

3

Bluetooth HID/SPP Supply

Wireless connectivity shall be provided within the boundary of 20m and pairing with a variety of devices such as smartphones, tablets, kiosks, and smartwatches shall be fast and easily connected to make good use of scanned data. (Additional distances shall be added with high-performance Bluetooth modules.)
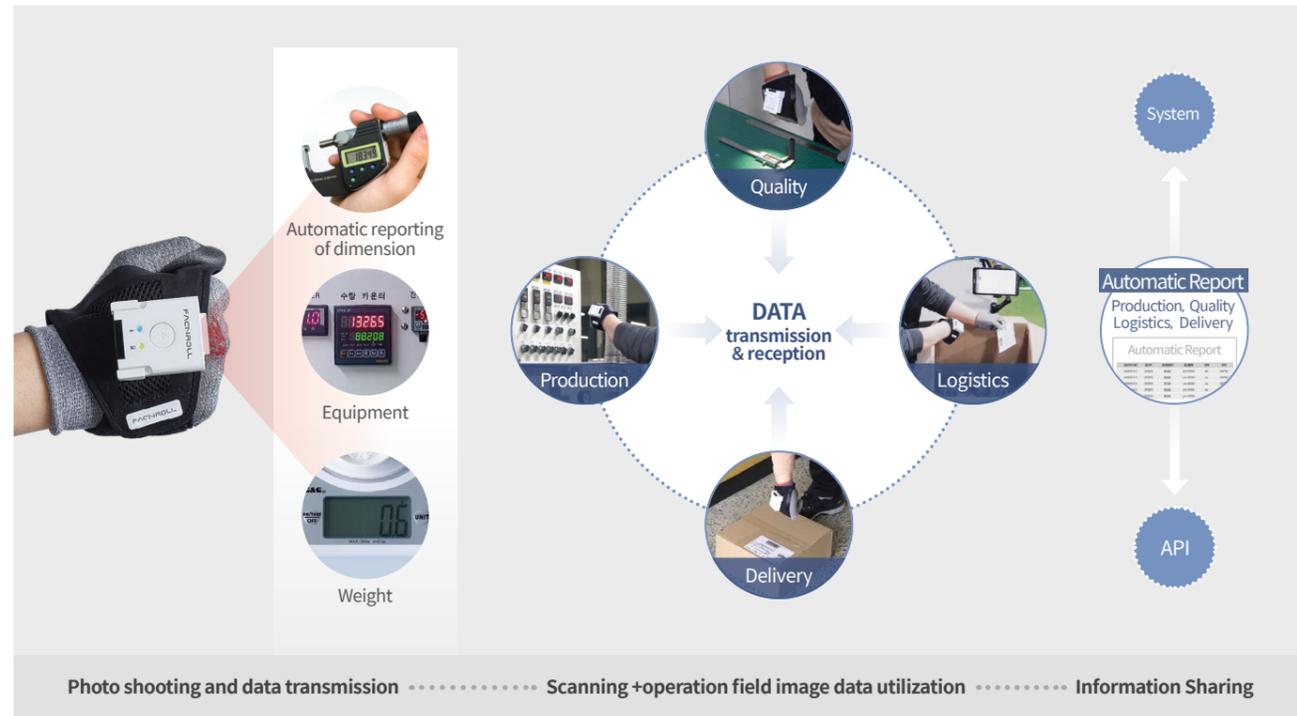
Android   Windows   ios

Smart Watch   Tablet   Kiosk PC

4

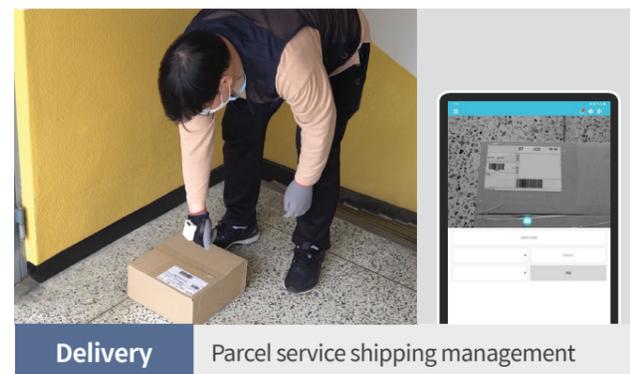### Three Notes for Operators

3 types of feedbacks from LED(visual), sound (audible), and vibration(touch) provided for operators in dark or noisy working environments enable immediate identification on the working status.

Bluetooth	Battery	Scan (Vibrated on Scan)
● Lighting │ Success of Bluetooth Connection	● Lighting │ Battery 91 ~ 100%	● 1 Blinking │ 1 Warning sound │ Succeeded Scan
◉ Blinking │ Fail of Bluetooth Connection	● Lighting │ Battery 21 ~ 90%	◉ 2 Blinking │ 2 Warning sound │ Failed Scan
Automatic Bluetooth Connection	● Lighting │ Battery 1 ~ 20%	
	◉ 3 Blinking │ 3 Warning sound │ Battery discharge	

[Scan + Photo Shooting] Data collection at operation fields

- Automatic reporting of dimension
- Equipment
- Weight

Quality

Production

DATA transmission & reception

Logistics

Delivery

System

Automatic Report
Production, Quality
Logistics, Delivery

Automatic Report

API

Photo shooting and data transmission · · · · · · · · · · **Scanning +operation field image data utilization** · · · · · · · · · · **Information Sharing**

| **Production** | Equipment status information |

| **Quality** | Measurement information management |

| **Logistics** | Packing state information |

| **Delivery** | Parcel service shipping management |

[Scan + Photo Shooting + OCR AI] Analysis of monitoring data

Pressure METER   Quantity Counter   Vacuum Sensor

Instrument panel for production equipment

Photo Shooting

Processed by scan button at one go

OCR AI

Real-time monitoring

Process

1. Scan + Photo shooting
2. Transmission of images to cloud server
3. Data analysis · Results transmission
4. Real-time monitoring

Application

Real-time monitoring
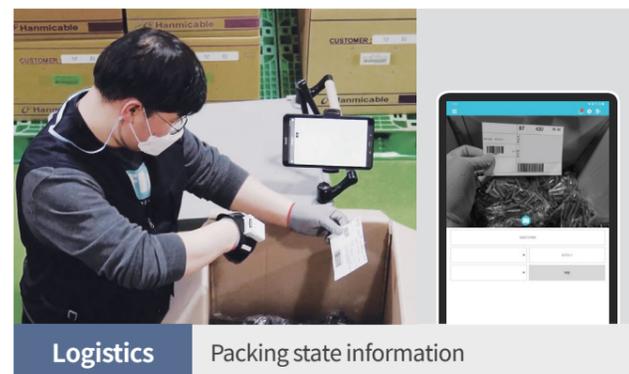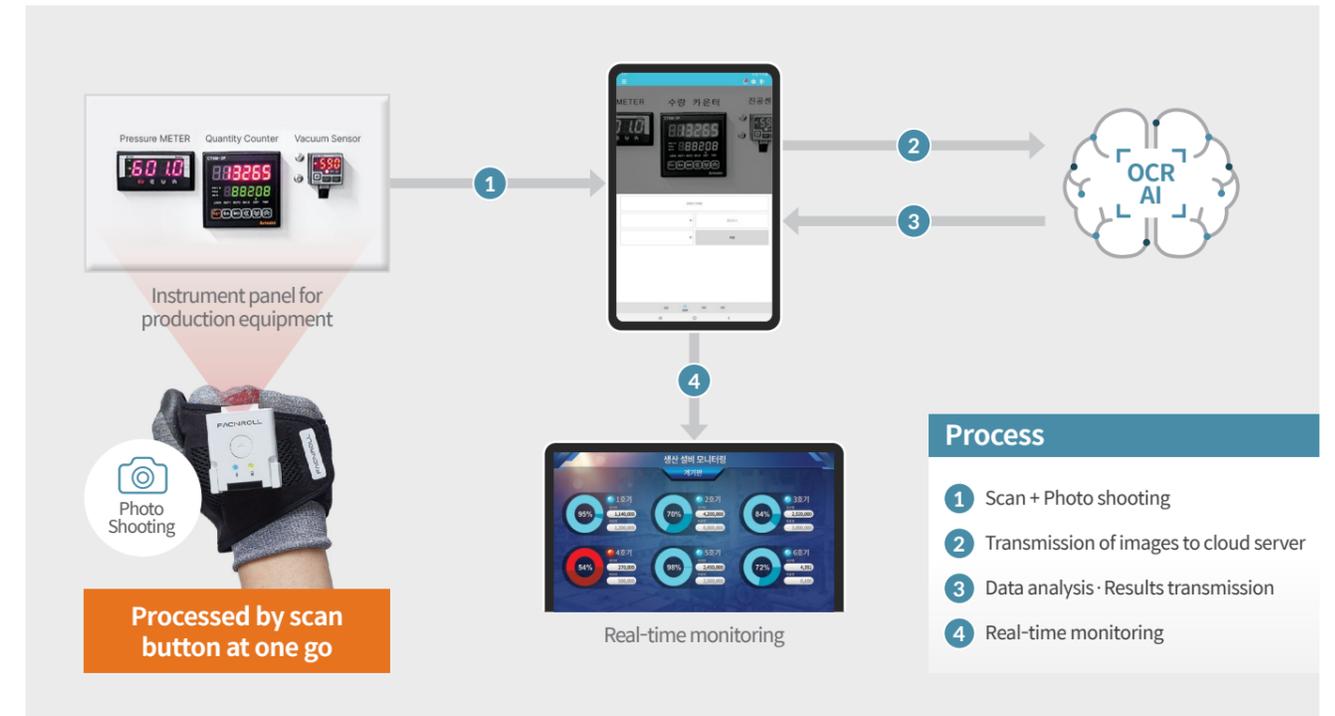
Smart Solution & Cases of the Application

Shipment registration time shall be reduced by **53%**

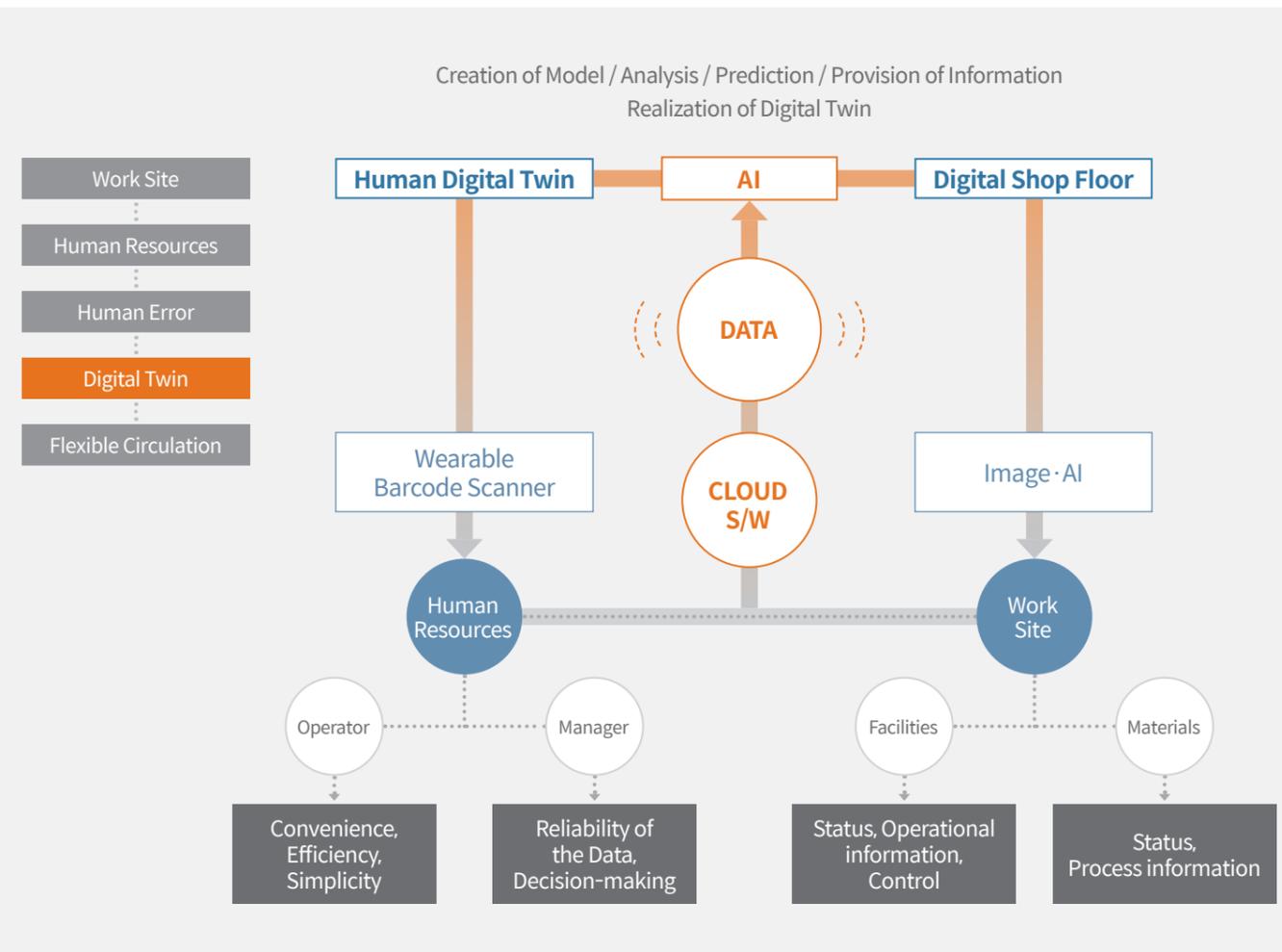| H/W **G2-BASIC**	S/W **Shipment and Management of the Stock**
Type of Industry	Manufacturing
Major Products	Heat-resisting and Shrinking Tubes (Automobile Protectors and Exterior Building Materials)
Major Features	Shipment Management, Storing and Releasing Management, Inventory Management
Introduction Effect	Enhanced Operational Efficiency from the Use of G2-BASIC, Quick and Accurate Data Aggregation and Errors Prevention

Customer counseling time shall be reduced by **67%**
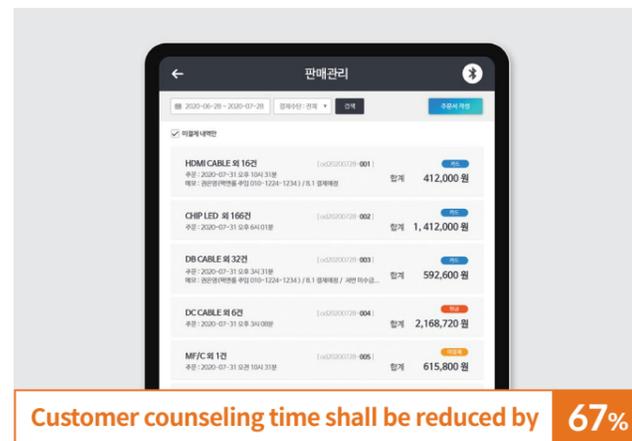
H/W **G2-BASIC**	S/W **Logistics distribution management**
Type of Industry	Industries of Wholesale and Retail
Major Products	Electronic Components (Managing about 10,000 units or more)
Major Features	Item Management, Sales Management (Statistics), Order Sheet Management, Accounts Receivable Management
Introduction Effect	Hand-written works are computerized to reduce business processing time, and order processing and customer handling time

Key technology and value of FACNROLL supports operation fields in a smart way

Wearable Barcode Scanner + Platform + AI Data Cloud
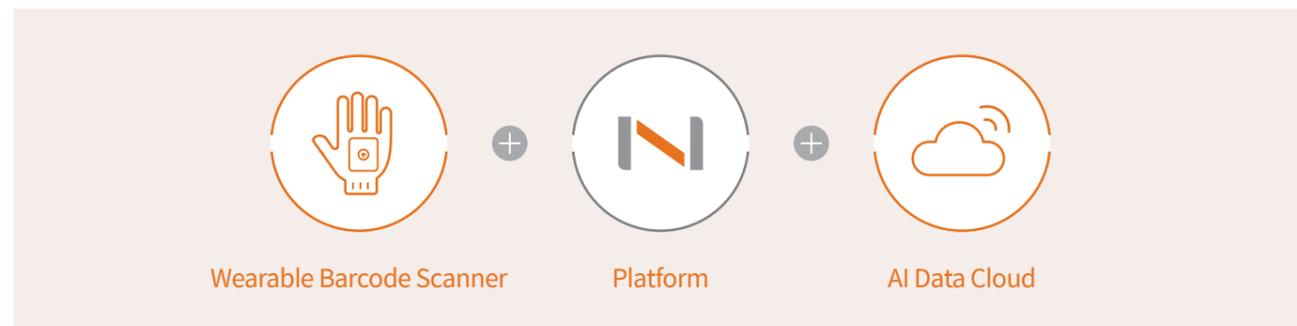
Human Digital Twin, Digital Work Site

Who, When, Where, What, How

Monitoring & analysis, Bottleneck, Safety, Prediction improvement

Optimization of material location, Inventory quantity, Operation field

Creation of Model / Analysis / Prediction / Provision of Information
Realization of Digital Twin

| Work Site |
| Human Resources |
| Human Error |
| Digital Twin |
| Flexible Circulation |

Human Digital Twin — **AI** — **Digital Shop Floor**

DATA

Wearable Barcode Scanner

CLOUD S/W

Image · AI

Human Resources

Work Site

Operator	Manager	Facilities	Materials
Convenience, Efficiency, Simplicity	Reliability of the Data, Decision-making	Status, Operational information, Control	Status, Process information

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