

Technology for people,
SMART traffic system to make **everyone safe**

SMART

TRAFFIC SYSTEM

- Optimized solution for SMART city and Pedestrian safety environment
- Korean government procurement registered(MAS) products
- Traffic solution leading the global standard
- Broadcasting and IT products conformity

 Korean government procurement registered(MAS) product

 Road traffic authority qualified product

 Broadcasting and IT product conformed product

 National police agency approved product

www.hangilh.com

Why HANGIL HC

Transportation vulnerable focused, traffic safety solutions



Tradition and Expertise

Since 1999, started as Hangil Handicare, became Hangil HC, and now we have been consistently accumulating traffic safety technology.



In-house production and One-stop service

Direct production on IoT & BLE based Traffic safety devices, with one-stop management from sales to service.



Verified quality (ISO certified)

Hangil HC provides transportation vulnerable focused ITS solution, such as LED pedestrian signals with timer, Pre-detection pedestrian safety system and IoT based APS.



Operation of advanced transportation science R&D team

We drive the continuous product advancement

“ Beyond the technology,
Hangil HC designs the transportation environment
to support everyone moving safely. ”



ISO 9001



ISO 45001



Multiple and
Professional
patenets and certificates



Venture business
company



Advanced
transportation
science R&D team



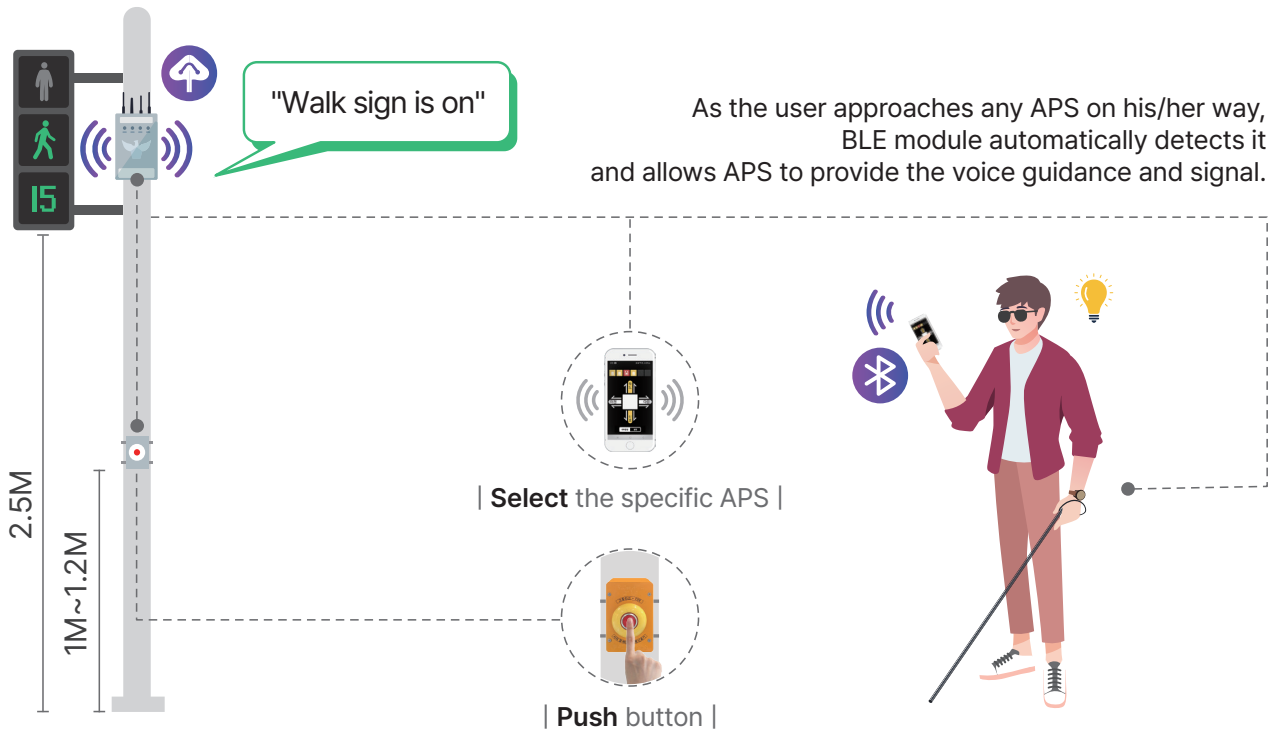
Family-friendly
company

1 Accessible Pedestrian Signal (IoT based APS)

SMART audible guidance to support visually impaired crossing safely

User`s convenience by BLE connected smartphone APP

APS with BLE module provides users with the best convenience by working with BLE connected user`s smartphone APP as the user approaches any APS on his/her way. The APP automatically detects and activates APS located around the user, and he/she can select the specific APS on their APP for the correct direction.



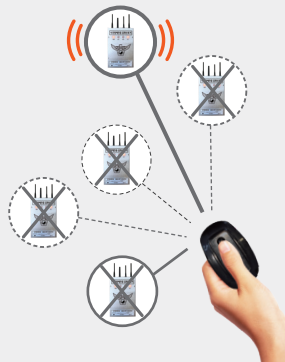
Smartphone APP use

⚠ Previously remote control use

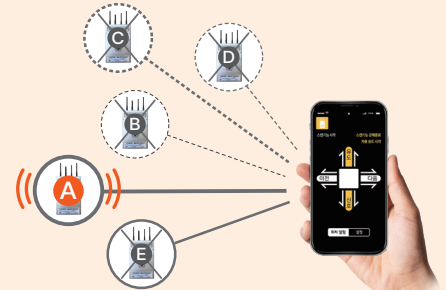
✅ Now smartphone APP use



All APSs near the user are possibly operated at once.



It may activate the furthest APS regardless of distance.

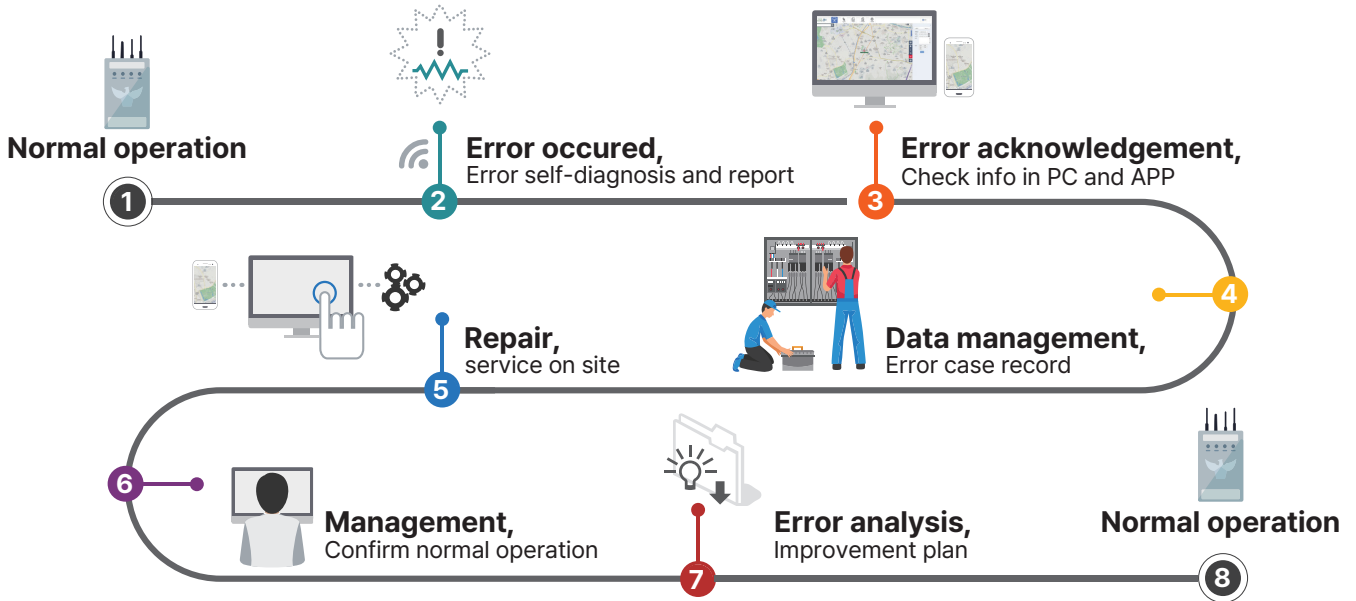


- ① User can select and activate the specific APS only.
- ② Automatic detection and activation within certain radius

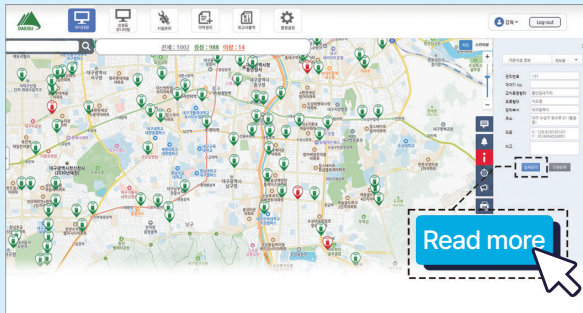
User`s option on Manual mode(①) or Automatic mode(②)

Real-time monitoring system for management

IoT based real-time monitoring and error self-diagnosis to find errors and take an immediate service action prior to civil complaints.



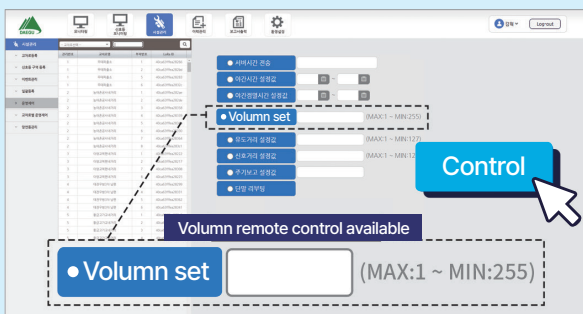
IoT server operation and management : Real-time monitoring on IoT based APS



① Real-time site information



② Site details



③ Volumn remote control



④ Operation control

Product in "BuyKorea" shopping mall

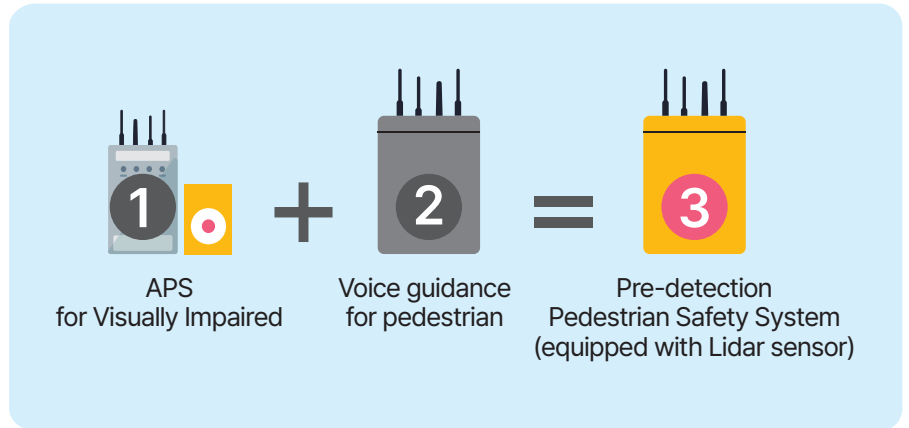
Name	Accessible Pedestrian Signal(APS)	Image	
Model	Smart-18A		
Product ID	3776231		

2 Pre-detection Pedestrian Safety System

Integrated solution with Lidar sensor to pre-detect the risk and provide pedestrian with the voice warning, as they step out under Red signal

- ① APS for Visually Impaired + ② Voice guidance for pedestrian=
- ③ Pre-detection Pedestrian Safety System(equipped with Lidar sensor)

For clear voice signals for both visually impaired and general pedestrians, APS for visually impaired is always priority.



The best for both visually impaired and general pedestrians



No voice overlapping and avoid confusion



All-in-one type installation good for budget saving and improve the device congestion.

Previous system

Separate device for APS for visually impaired and Voice guidance with Lidar sensor for pedestrian.

The signal from APS and Pre-detection device can be overlapped, and may cause the confusion.



Pre-Detecton Pedestrian Safety System



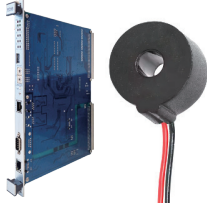


Integrated device for APS for visually impaired and Voice guidance with Lidar sensor for pedestrian.

Integrated solution with Lidar sensor to pre-detect the risk and provide pedestrian with the voice warning, as they step out under Red signal.


Absolutely, the voice guidance for visually impaired is always priority



Specification

Item	Control	Detection	Signal Sensing	Voice Output	Activation
Image					
Name	Control panel	LiDAR Sensor	RS-485 & CT	Speaker	Push button or APP
Operation	APS + Voice guidance	Surface & Curve Detection	Surface & Curve Detection	Integrated Structure	Day / Night / Late-Night Volume Control
Spec.	Rated voltage : AC110V or 220V Output voltage : DC4V	DC 10~32V	EDIB option board (External device interface board)	8Ω 15W	80 × 120 × 40mm/ SUS

Product in "BuyKorea" shopping mall

Name	Pre-Detection Pedestrian Safety Solution	Image	
Mode	HG Smart VG-21		
Product ID	3776243		

→ Shopping mall website : www.buykorea.org

Installation case

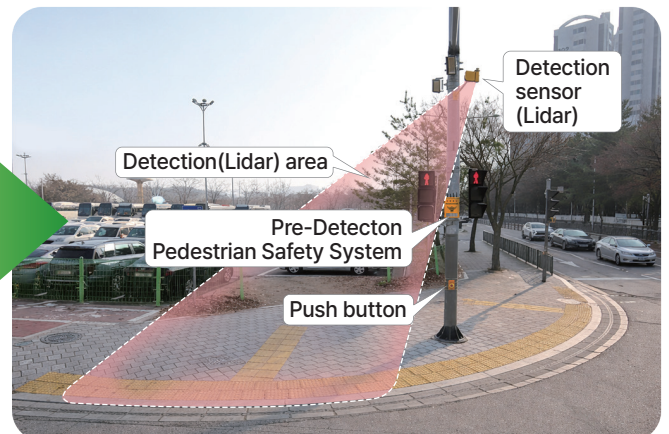
Ansan-city pedestrian environment project (14 installations)

📍 school zone at Seulgi elementary school

Before




After



📌 Lidar sensor based pedestrian safety system to prevent the jaywalk and improve the safe crossing through the voice warning near the school.

3 In-Ground Pedestrian Signal

This is installed in ground to provide better signal identification by synchronized operation with pedestrian signal, especially good for the people who put their attention on smartphone frequently



Energy saving



Improved visibility



Strong durability



Installation flexibility

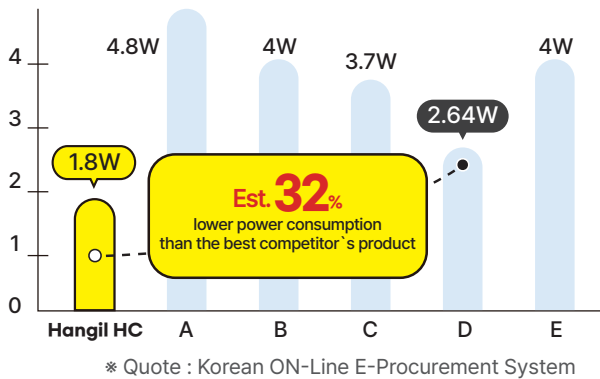


Product features

Energy saving

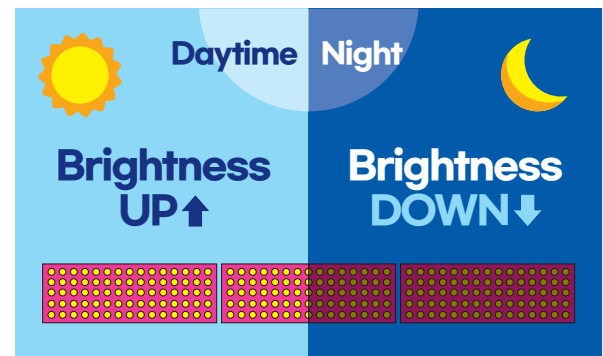
Max. energy efficiency by lowest power consumption

Hangil HC is proud of having Max. energy efficiency compared to other competitors, and shows Est. 32% lower power consumption.



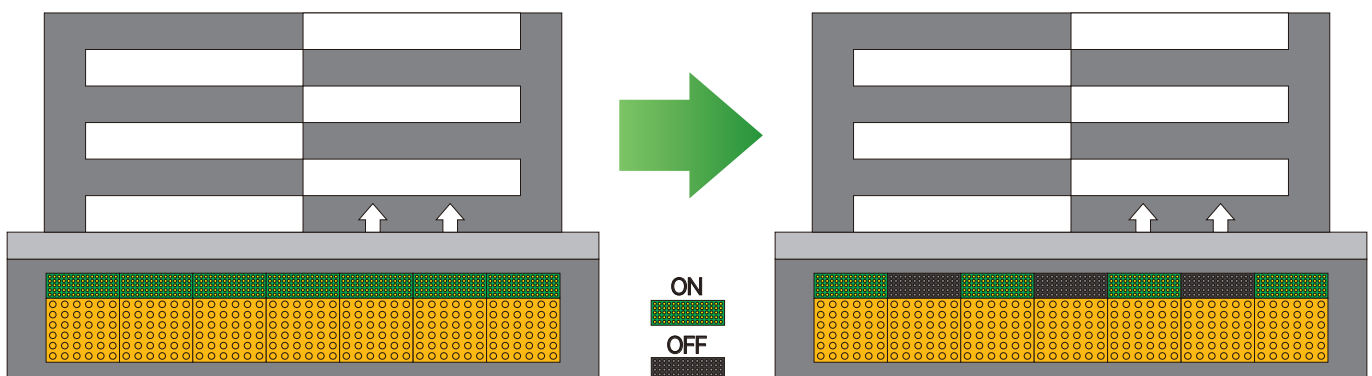
Energy saving by automatic brightness control following daytime and night

We can save extra energy and keep the best visibility by automatic brightness control increasing on daytime and dimming control at night.



Keep the best visibility and additional energy saving by alternating operation of each LED block.

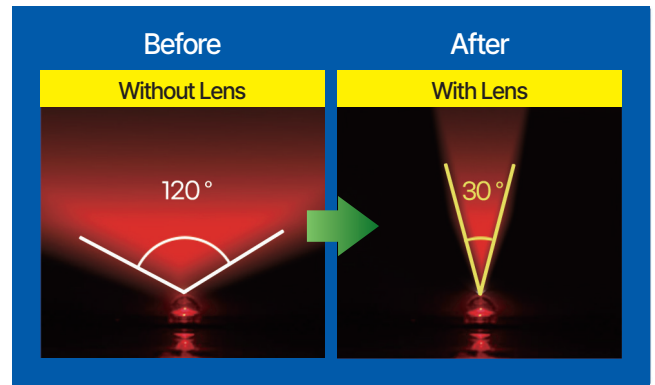
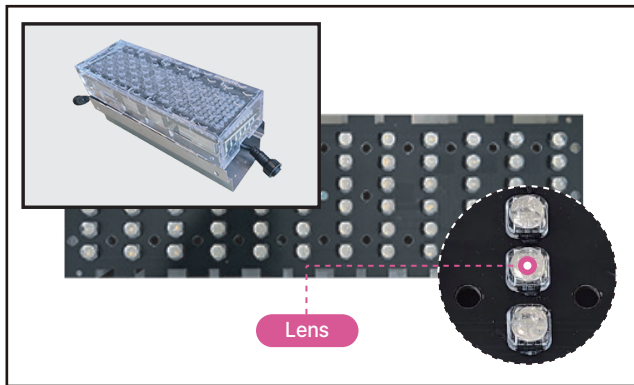
By user`s needs, we can save more energy by odd and even LED activation.



Visibility · Durability · Installation flexibility

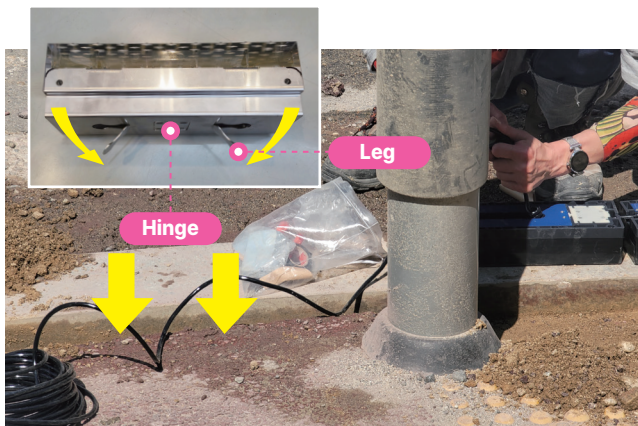
Improved brightness by combination of SMD LED and Lens

Self-developed Lens is applied on top of SMD LED to improve brightness and visibility in the same energy.



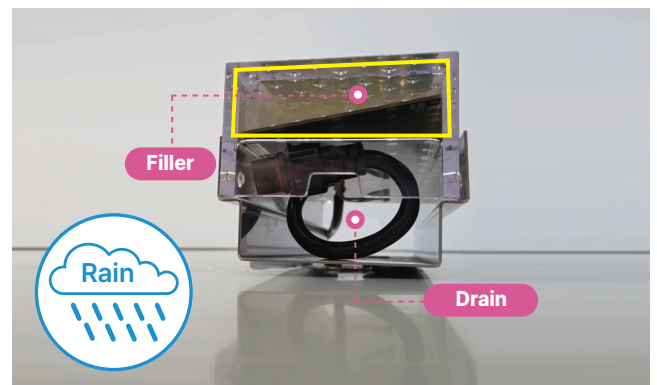
Stronger durability by stable fixing

LED block with our own install bracket can support to have each single LED block fixed stably for the best durability.



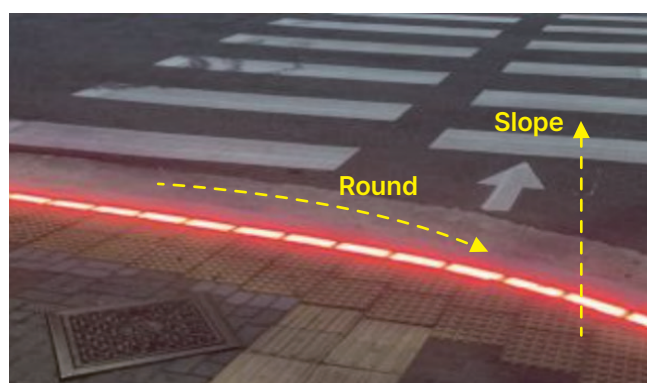
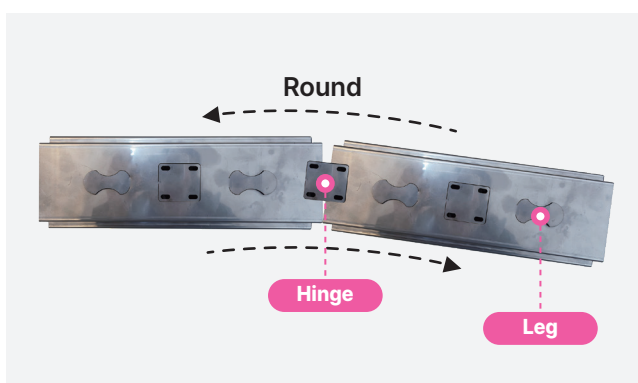
Improved durability by waterproof and condensation prevention.

Specific filler filling in full inner part of LED block can allow the complete waterproof and extend the product life.

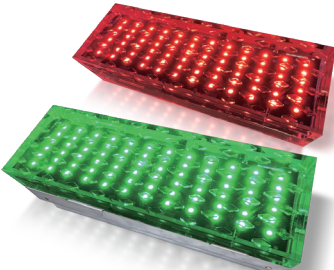




Optimized and flexible installation for various site condition

Self-developed install bracket consists of body, hinge and leg, and hinge and leg allow easy installation in not only linear site but also slope site, without any separation and twist.



Specification and Product in "BuyKorea" shopping mall

Item	Display block	Block control panel	EDIB option board (External device interface board)
Image			
Model	HGHC-24DE1	HGHC-24CE1	HGHC-24EDIB01
Product ID	3776250		Optional
Purpose	Installed in ground to provide better signal identification by synchronized operation with pedestrian signal	Communicate with traffic control panel and control display block operation such as cycle and brightness	Installed in traffic control panel to communicate with block control panel

➔ Shopping mall website : www.buykorea.org

Installation case

Yeosu-city smart pedestrian signal project

Before

After



Implementation of high quality SMART crosswalk is the best choice for school, kids and elderly zone.

4 LED Traffic Signal

High visibility with excellent structural stability

This is LED based traffic signals that display red, green, yellow and arrow lights to facilitate traffic flow and ensure road safety.

Hangil HC applies high-brightness LED for high visibility, and prevents entire breakdown even under partial failure, and allows user`s maintenance cost saving.

Product features

- High-brightness LED**
60~300pcs of high performance components
- Uniform light output**
Special LED arrangement technology
- Cost saving**
Max. 75% maintenance cost saving
- Excellent brightness**
Backlight neutralization technology
- Operation in low power**
Stable circuit design
- Energy innovation**
Power saving more than 90%
- Better environment**
Innovatively reduced carbon emissions.
- Minimized heat**
25 times extended life compared to bulb lighting

Specification

















Image				
Model	HLS-7001-R	HLS-7002-Y	HLS-7004-A	HLS-7003-G
Name	LED traffic signal,1pc(R)	LED traffic signal,1pc(Y)	LED traffic signal,1pc(A)	LED traffic signal,1pc(G)
Product ID	23464207	23464208	23464210	23464209
Image				
Model	HLS7210-YY	HLS7220-RR	HLS7310-3A	LS7310-SZ-3A
Name	LED warning signal, 1pc(Y/Y)	LED traffic signal, 1pc(YEL)	LED traffic signal, 1pc(ARW)	LED traffic signal, 1pc(GRN)
Product ID	23464204	23464206	23464201	23464216
Image				
Model	HLS7300-3C	HLS7300-SZ-3C	HLS7400-4C	HLS7400-SZ-4C
Name	LED traffic signal, 3pcs(R/Y/G)	LED traffic signal, 3pcs(R/Y/G)	LED traffic signal, 4pcs(R/Y/A/G)	LED traffic signal, 4pcs(R/Y/A/G)
Product ID	23464200	23464215	23464199	23464214
Image				
Model	HLS7200-YYY	HLS7410-RG	HLS7006-PG	HLS7005-PR
Name	LED traffic signal, 3pcs(Y/Y/Y)	LED side signal, 2pcs(R/G)	LED pedestrian signal, 1pc(G)	LED pedestrian signal, 1pc(R)
Product ID	23464203	23464205	23464212	23464211

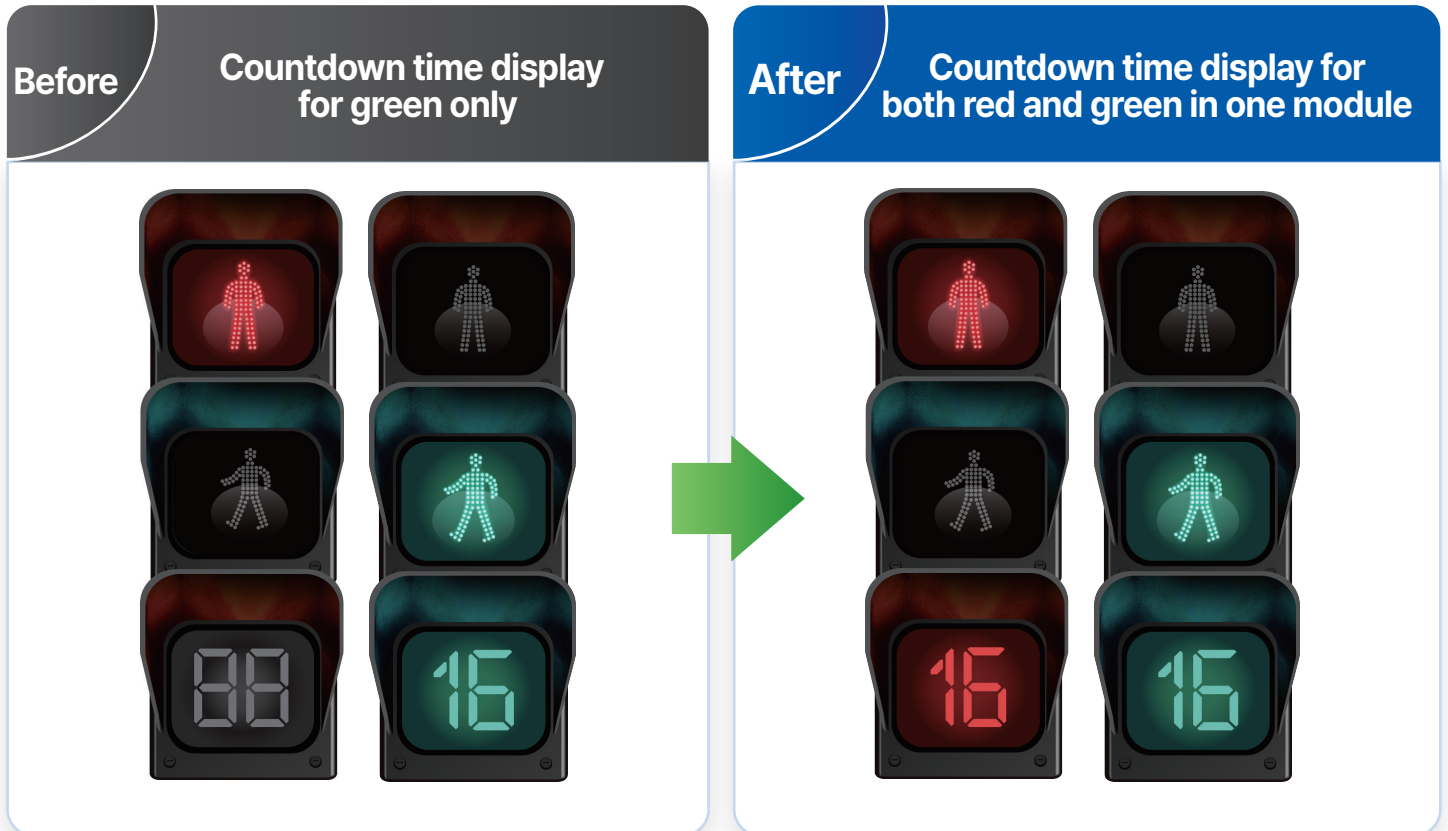
Image				
Model	HLS7520-RG	HLS7520-SZ-RG	HLSC7803-NP3C	HLSC7803-SZ-NP3C
Name	LED pedestrian signal, 2pcs(R/G)	LED pedestrian signal, 2pcs(R/G)	LED pedestrian signal, 3pcs(R/G/T)	LED pedestrian signal, 3pcs(R/G/T)
Product ID	23464202	23464217	23464213	23464228
Image				
Model	HC-0807-MD	HC-0807	HC-0807-SZ	
Name	LED pedestrian signal module(T)	LED pedestrian signal, 1pcs(T)	LED pedestrian signal, 1pc(T)	
Product ID	24074165	22120805	23305807	
Measurements	<p>1 Item name : LED Traffic Signal</p> <p>2 Content (W x H x D) : 355 × 355 × 140mm</p>			

➔ Shopping mall website : www.buykorea.org

5 Pedestrian Signal Timer(Both R&G)

Countdown time display for both red and green in only one module

This is synchronized with pedestrian signal to display countdown for both red and green in only one module. It can help pedestrians to relieve their anxiety in waiting, anticipate when to cross, then finally prevent jaywalking.



Product features



Safety

Own design allows stable operation even under low or high temperature



LED technology

Own design for intuitive time display and excellent visibility.



Signal detect circuit included

Timer displays when received signal and LED status are corresponded only.



High readability

Large number and clear color for easy identification.



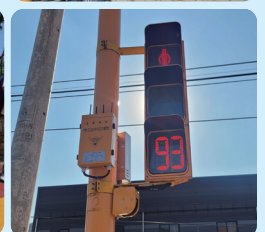
Leakage breaker included

Best condition to protect circuit and service.



Reliability

Verified function and consistant technical support



Product List

Image					
Model	HGHC-24RTI-NP3C	HGHC-24RTI-SZ-NP3C	HGHC-25RTI	HGHC-24RTI-SZ	HGHC-24RTI-EDIB
Name	LED Pedestrian signal 3pcs(R/G/T for both)	LED Pedestrian signal, 3pcs(R/G/T for both)	LED pedestrian signal, 1pc(T for both)	LED pedestrian signal, 1pc(T for both)	Option board(Part)
Product ID	25464135	25464137	26057211	26057211	25464134

Specification

Name	Pedestrian signal timer(Both R&G)	Operating Temp	-34°C ~ 74°C
Purpose	Countdown timer display (Red/Green)	Measurements	<p>355×355×140mm / Visor 240mm</p> <p>220 or less 240 or more 355 220 or less 240 or more</p> <p>355</p> <p>Side Front Top</p>
Input Power	220ACV		
Output Power	5.0DCV		
Power Consumption	10W ACV		
Power Factor	0.9 or more		
Installation	On bottom of original pedestrian signal		
Communication H/W	Both EDIB option board and CT sensor, or CT sensor only if needed		

Installation case

Pedestrian Signal Timer(Both R&G)

Installed in Ilsandong-gu, Goyang-si, Gyeonggi-do



- Countdown time displays for both red and green in only one module.
- It can help pedestrians to relieve their anxiety in waiting, anticipate when to cross, then finally improve their safety.

6 Traffic Control Panel

Smart traffic control system that meets police standard, optimizes crossway signal operation and finally supports traffic flow improvement.



Product features

Standard compliance Police standard	Optimized signal Crossway improvement	Core control Integrated city traffic management	Action on traffic Realtime action	Efficiency enhancement Signal operation improvement	Field-specific Standard/Slim type
---	---	---	---	---	---

Product function

<ul style="list-style-type: none"> • Police standard based traffic control • Central control & remote management available by on-line communication • Realtime control by traffic information and sensing data analysis. 	<ul style="list-style-type: none"> • Left-turn sensing and signal control • Driving straight/left-turn/pedestrian sensing control • Optimum signal control algorithm applied on each intersection situation 	<ul style="list-style-type: none"> • Traffic volumn based automatic signal cycle control • Special & manual control support • 3 and 4 color traffic signal support
---	--	---

Product in "BuyKorea" shopping mall

Item	Traffic control panel(Standard)	Traffic control panel(Slim type)
Image		
Model	HTC-7200A	HTC-7500BS
Product ID	3776281	3776270
Measurements	588×458×1000mm	320×350×1250mm
Rated voltage	AC110~220V	AC220V
Power consumption	30W	36W
Frequency	60Hz	60Hz
Display Type	MMI, LED	-

7 Audio Wayfinding System (Smartphone-activated AWS)

Hangil HC`s AWS is in 3 types for visually impaired to enable independent mobility through sound cues, using smartphone app or remote control to identify locations and directions.

What is the need of this for visually impaired?



Civic Service regulation and world trend for disabled in each country is to support not only accessibility but also independent mobility.



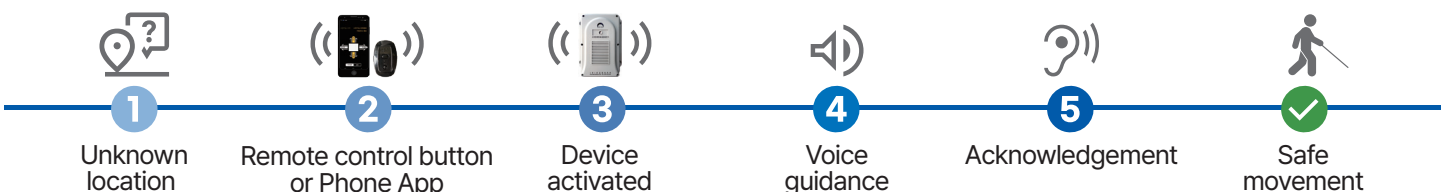
Demand analysis :
Est. 10% of world`s disabled population
 Needs of this device is increasing for 120 million of visually impaired in the world.

Product List

STANDARD type	EMBEDDED type	SOLAR-Powered type
<p>Standard type Audio Wayfinding System</p> <ul style="list-style-type: none"> Standard type good for multiple locations and easy installation. Installation recommended in public office, community center, hospital, school, cultural facility, station and terminal. 	<p>Embedded type Audio Wayfinding System</p> <ul style="list-style-type: none"> Clean installation harmonized with the space is available Installation recommended in public office, educational facility, hospital, cultural facility, station and new or remodeling site. 	<p>Solar-powered type Audio Wayfinding System</p> <ul style="list-style-type: none"> Stand-alone type device if power supply is limited. High operation efficiency by solar-powered system and good for open areas such as walk road, park and outdoor plaza.

Specification

Item	Audio Wayfinding System (BLE included)	Remote control & App (User)	Remote control (Manager)
Image			
Model	HC-1805-16A	HCR-2007A	Remote Control for Administration
Measurements	172×227×90mm	35×60×15mm	48×160×20mm
Power input	AC 220V 60Hz	DC12V A23 Battery	DC 12V A23 Battery



SMART TRAFFIC SYSTEM

*"We are building a people-centered smart city
where no one is left behind."*

(주)한길에이치씨는
사람 중심의 교통안전 기술로
더 안전한 이동 환경을 만들어갑니다.

 **HANGIL HC Co., Ltd.**

Office. F410~413, 602~603, 325 Sandan-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea Zip Code:15426
Tel: (+82) 31-431-2005 (0688) | Email: 2hg@hangilh.com | Website: www.hangilh.com

Factory 1: 45 Anseongmatchum-daero, Seoun-myeon, Anseong-si, Gyeonggi-do, Republic of Korea |

Factory 2: 732 Seongjin-ro, Ipjang-myeon, Seobuk-gu, Cheonan-si, Chungcheongnam-do, Republic of Korea

Specifications of this product are subject to change without prior notice for quality improvement. [V.26.5]

