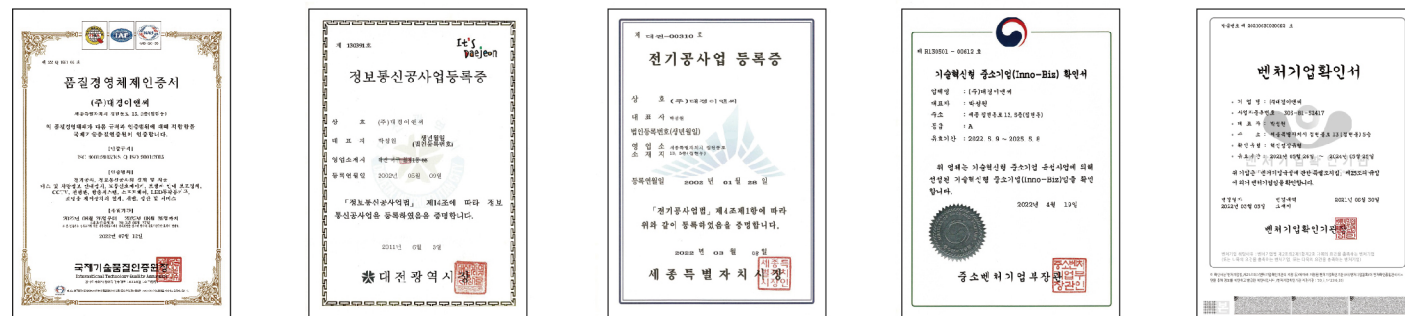# Technical Certification

Certificate of Designation of Innovative Products	GS Software Certificate	Q-Mark Certificate	K-Mark Certificate	G-PASS Enterprise Designation Certificate

Quality Management System Certificate	Information and Communication Business Registration Certificate	Electrical Engineering Business Registration Certificate	Inno-Biz Confirmation	Confirmation of Venture Business

Patent: Pedestrian Recognition Voice Guidance Device	Patent: Pedestrian Recognition Methods and Devices in crosswalk waiting areas	Patent: Surveillance Camera Device with Improved Heat Dissipation Characteristics	Patent: Image Collection and Analysis Device Case

* Other certification and multiple patents held
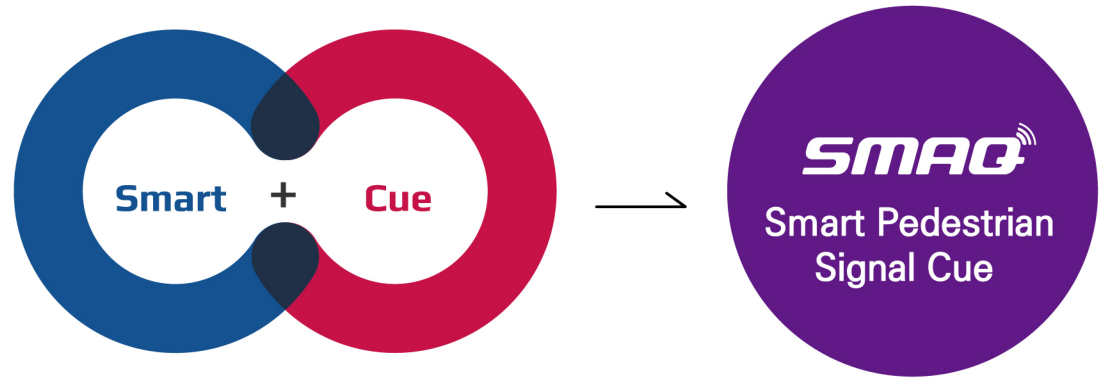

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Smart Pedestrian Guidance System

SMAQ

A voice guidance system that protects the precious lives of pedestrians

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SMAQ is a brand that enhances the value of Daekyung ENC.

Smart + Cue → SMAQ Smart Pedestrian Signal Cue

Smart + Cue : Smart Pedestrian Signal Cue

SMAQ represents the functionality of the guidance system through a graphic depicting the spread of signal sounds. Designed in 'smart color blue' and 'Daekyung ENC CI color red', it emphasizes the stability and reliability of SMAQ's products.

2023
G-Pass Enterprise certified
Q-Mark certified

2022
Pedestrian signal voice guidance GS software certified
K-Mark certified
Registered as an innovative product

2020
Daekyung ENC ranked No.1 in the market share of voice guidance devices

2015
Register case design for pedestrian detection camera
Commendation of Daejeon metropolitan city hall

2016
Acquired NET (New Technology) certification
Registered as an excellent procurement product by the Public Procurement Service

2013
Certified as a Technology Innovation INNO-BIZ
Registered patent for pedestrian guidance device
ISO 9001
2008 Quality management system certified

2014
Selected for prototype production support by Daejeon economic and trade promotion agency
Certified as a Management Innovation SME(MAIN-BIZ)

2008
Company name changed to Daekyung ENC

2012
Established Corporate R&D Center

2002
Establishment of the corporation Daekyung Shinho

2004
LED traffic signal lamp (E-mark obtained)

Specializes in the design and professional construction of advanced traffic signal systems
Pedestrian signal voice guidance devices / Pedestrian automatic recognition signals
Left turn responsive signal systems / Automatic lighting control devices / ITS / Traffic signal lights
Traffic facilities / Bus information terminals / Vehicle detectors design and construction
Electrical, information and communication construction

What is an innovative product?

It is a product recognized for its public and innovative qualities to improve public services and technological innovation, designated through deliberation by the Public Procurement Policy Deliberation Committee of the Ministry of Strategy and Finance.

Product Model Name	DK-PA214	Product Name	『Smart pedestrian signal voice guidance device』 with automatic recognition video detection and analysis method
Item Identification Number	24395778		

- The green light will be on in 00 seconds
- Please move to the sidewalk
- ★Pedestrian signal waiting time guidance
- Curved area detection
- Ding-dong-dang, The green light is on.
- Detection of people within the roadway
- ★ Pedestrian signal change notification

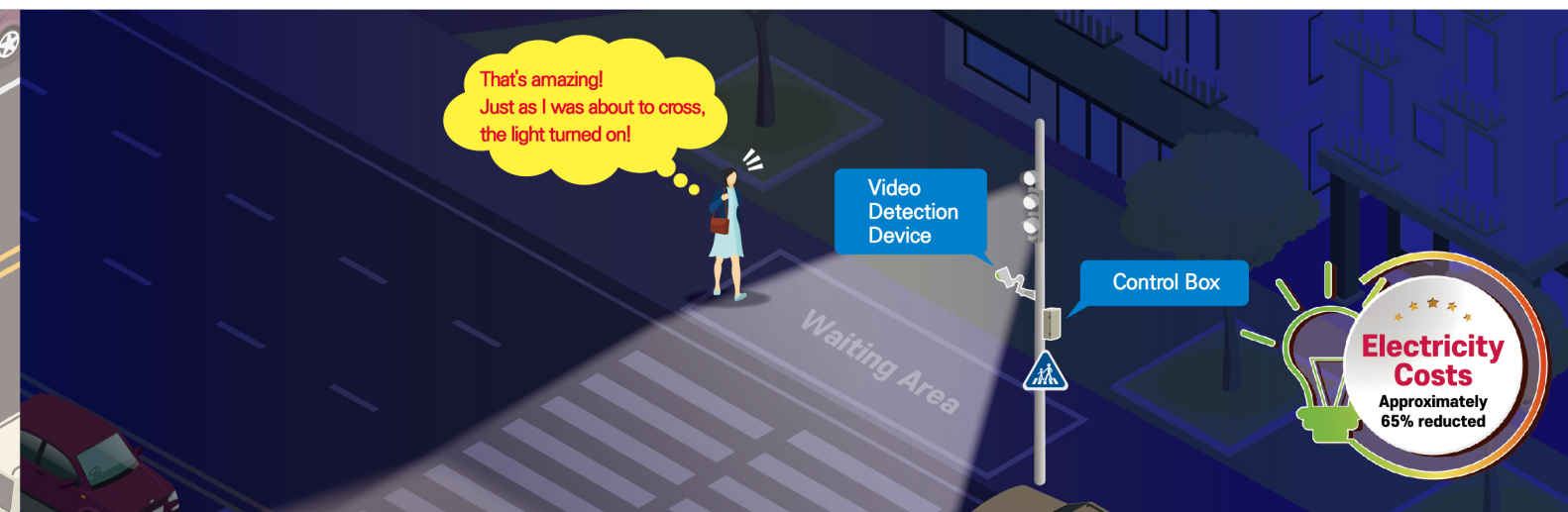### Overview of Designated Innovative Products

- Innovative products are certified by the South Korean government and selected through a rigorous evaluation of their innovation by a specialized deliberative committee

- The annual pass rate for designated innovative products is 7~8%

- Innovative products are designated as priority purchase items, with a requirement that they account for at least 15% of government agencies' total procurement

- Innovative products are certified for their quality excellence by meeting evaluation criteria set by the government, including public interest, social value, innovation, and marketability

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! When the pedestrian signal is red, the system identifies pedestrians attempting to enter the roadway, transmits a warning voice, and guides them to a safe signal waiting area.

- Video Detection Device
- Control Box
- Detection Area
- Please step back. The roadway is dangerous.

SMAQ-V2101D	DK-GAL211	DK-PG222
Item Number: 25064101	Item Number: 24226923	Item Number: 24917859
Components	Components	Components
Control box (high-strength PC) + camera + omnidirectional speaker (control box built-in)	Control box (high-strength PC) + pedestrian detector + LED display panel + omnidirectional speaker (control box built-in)	Control box (high-strength PC) + pedestrian detector + omnidirectional speaker (control box built-in)

Pedestrian Detector with Video Analysis Method

Accurately recognizes people, not objects → **Prevents unnecessary voice guidance**

Detecting Pedestrians on the Roadway

Detects people waiting for pedestrian signals on the roadway → **Broadcasts safety warnings and guides people to the sidewalk**

Miniaturized Video Analysis System

Pedestrian recognition device optimized for strong sunlight environments → **Prevents product damage, data loss, and ensures long-term stable operation**

Flexible Detection Area Settings for Curves and Straight Lines

Detection area settings can be customized to various road conditions → **Minimizes detection blind spots**

! A system that acts as an indirect traffic signal on crosswalks without traffic lights, enhancing the visibility for night drivers and protecting pedestrians using the crosswalk.

- That's amazing! Just as I was about to cross, the light turned on!
- Video Detection Device
- Control Box
- Waiting Area
- Electricity Costs Approximately 65% reduced

Product Model Name	DK-AL174	Item Number	24003088
Components	Main control system + Pedestrian recognition device + LED floodlight (utilizes pre-installed lighting fixtures or separately installed)		
Lighting Control Function	▶ Sunset → 10 PM : Always on ▶ 10 PM → Sunrise : Intelligent lighting control (※ lighting times can be set according to field conditions)		

Product Features

Automatic Pedestrian Detection
Recognizes pedestrians entering the detection area at night and automatically turns on the lights

Energy Saving Effect
Reduces energy consumption by over 65% compared to the system always being on

Notifies Drivers of Pedestrians Presence
Lights turn on only when there are pedestrians at the crosswalk, informing drivers of their presence

Extends the Life of Lighting Fixtures
Lighting usage time is reduced by about 2/3

Main Installation Locations

- ▶ Crosswalks with pedestrian signals
- ▶ Crosswalks without traffic lights
- ▶ Child and elderly protection zones
- ▶ National and local roads

Build the system at a low cost! A control system that provides a real-time overview of the status of products installed by region, allowing detailed monitoring and maintenance of each product's operational status.

Applicable Models	DK-PA214, DK-GAL211, DK-PG222
Features	▶ Improves Work Efficiency : Monitors equipment operation status in real-time remotely ▶ Effective Equipment Operation : Easily check the history and status of installed equipment ▶ Resolves Citizen Inconvenience : Prevents complaints by quickly responding to equipment failures by region ▶ LED Display Operation(Option, DK-GAL211) : Display and modify messages on the LED display

System Configuration and Functions

Smart Control Platform
- ▶ Monitors equipment installation locations
- ▶ Manages equipment history and status
- ▶ Collects and utilizes traffic information
- ▶ Monitors current road conditions

Integrated Server Management
- ▶ Supports fault diagnosis and equipment status confirmation functions
- ▶ Manages the optimal server system

Related Organizations
- ▶ Monitors and operates products
- ▶ Remote operation of LED display
- ▶ Local governments and departments check the equipment status
- ▶ Quickly recover after identifying equipment failures