

Checklist for everyday quarantine system

Part 1. Heat screening system using thermal imaging camera

- ☐ Does the thermal imaging camera measure temperature on the surface of your forehead?
- ☐ Is error range within 0.5°C when measuring heat temperature? How can the error be adjusted?
- ☐ Is personal identification possible regardless of wearing a face mask?
- ☐ Is it capable of effectively tracking down false identification using pictures and videos?
- ☐ Is collected data safely stored? Is there any risk relevant to leakage of personal information?

Part 2. Effective prevention for the spread of different kinds of viruses in crowded spaces

- ☐ Is indoor fine dust concentration effectively managed for preventing different kinds of viruses?
 - When fine dust concentration increases by $1\mu\text{g}/\text{m}^3$, the number of people infected by Human coronavirus increases by 2%.
- ☐ Is large-size air purifiers that can handle any crowded spaces being used?
- ☐ Is anti-biotic / anti-virus photocatalytic filter that are verified by a government institution being used?

Part 3. Effective management method for different kinds of quarantine system

- ☐ Is it capable of checking indoor air quality in real-time and automatically control the air purifier?
- ☐ Is it monitoring and gathering the status of different kinds of quarantine activities in real-time?
- ☐ Is communication and data security being carried out for protecting personal information?
- ☐ Is it easy to sync with previous entrance / exit management systems?
- ☐ Is it easy to make integrated / individual registration for users?



It is a daily quarantine system solution using AIoT fusion technology to check the checklist all at once.

> Key Features

- With low rate of error below $\pm 0.5^\circ\text{C}$, accuracy for checking temperature can be improved.
- Detection of people not wearing a face mask based on AI technology.
- Personal identification and heat measurement history is made into a real-time database.
- Generates an alarm when it detects people showing symptoms or not wearing a face mask.
- Automatic operation of anti-biotic / anti-virus cleaner for removing Human coronavirus and influenza virus.
- All data is encrypted using a module certified by KCMVP of the National Intelligence Service

> Patents and Certificates



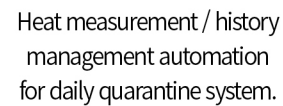
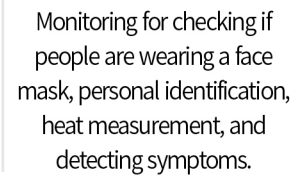
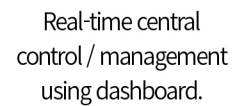
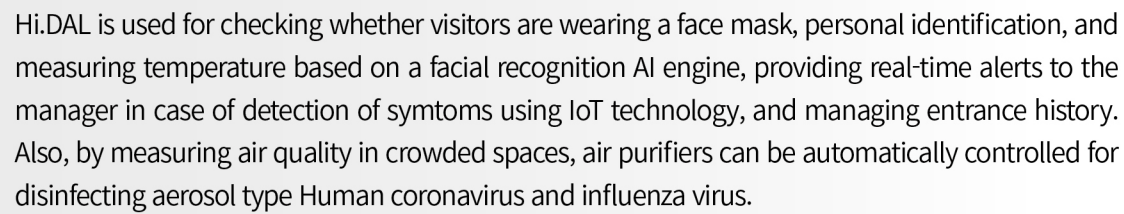
> Major Vendor

- It has been installed in various facilities such as general enterprises, public institutions, luxury restaurants, museums, and academic facilities.

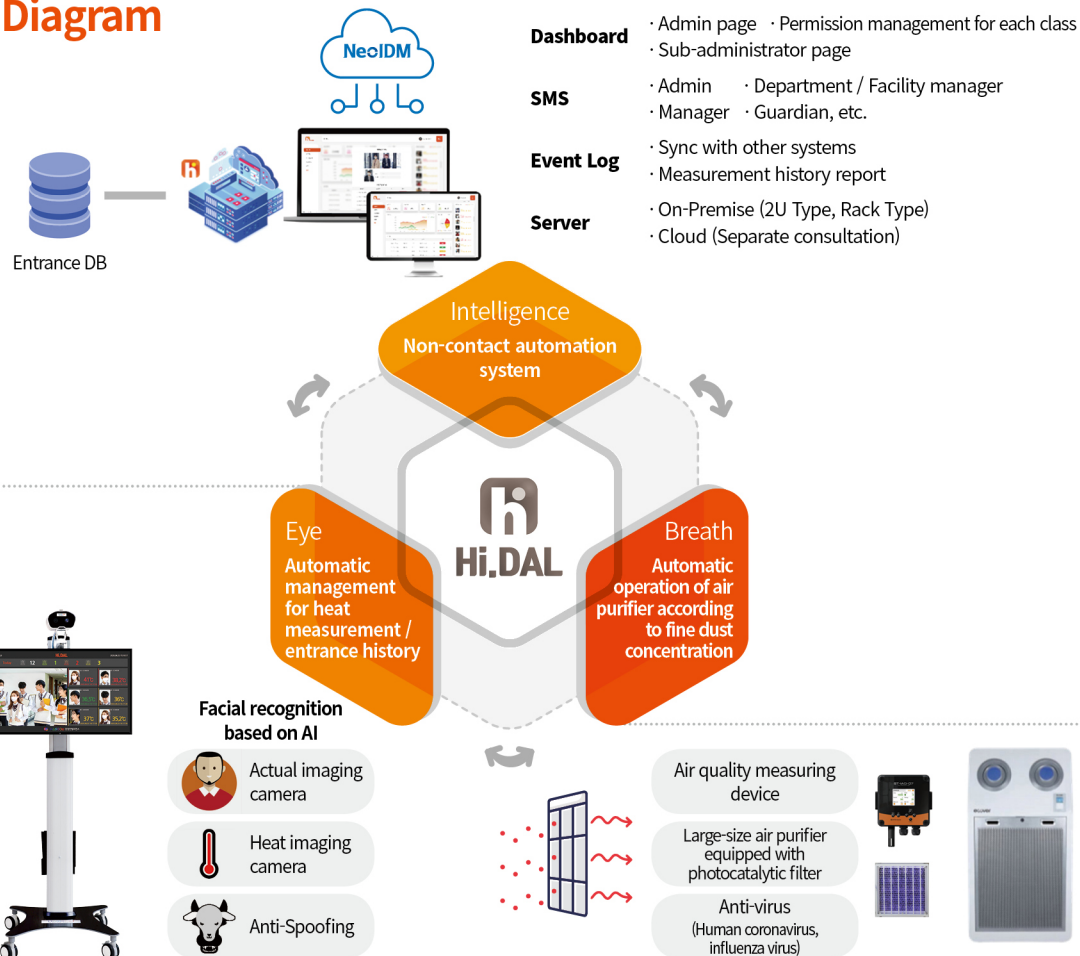


Detect All Leaks

Leak of a single virus can lead to a pandemic.



Equipped with IoT technology



- Equipped with domestic IoT technology (NeolDM) awarded with the KSWA Korea Software Award by the Ministry of Science and ICT
- Real-time measurement status management, control, alarm
 - Status monitoring for time / identification / face mask application / heat measurement for every visitor
 - In case of detecting people with symptoms, real-time alarm is provided using the SMS / status board.
 - Remote device control (power, wind, SW update)
- Permissions management for user and device organization
 - Individual / Integrated registration function for observation target
- Installation position management for cameras and cleaners
 - Management by registering the floor plan on the dashboard
 - It is used for figuring out the movement line when registering multiple devices
- Encryption of all data (ARIS 256 or AES 256 encryption method is applied) and communication encryption (X.509) for protection of personal information
- Sync with previous systems (additional charges apply)



- Personal identification using AI engine and automatic monitoring on wearing face mask and heat measurement
- Equipped with domestically-made high-resolution (384*288) thermal imaging camera
- Prevention of false entrance using image and video (anti-spoofing)
- Accurate temperature measurement and automatic error correction using black body
- Encryption of all data (ARIS 256 or AES 256 encryption method is applied) and communication encryption (X.509) for protection of personal information
- Real-time entrance history and heat measurement management
- Holding and application of patent technology relevant to heat monitoring using thermal imaging (Application No.:10-2020-0064524)

- Equipped with anti-virus photocatalytic filter provided by the Korea Institute of Construction Technology
 - Removes more than 99% of viruses (colon bacillus, salmonella), Human coronavirus, Norovirus, and influenza virus (flu)
 - * Reference: press release by Ministry of Science and ICT
- Wide-range space management from 244m² to 1653m²
- Indoor air quality measuring device certified as 1st class by the Ministry of Environment
- Reduction of installation costs using simple network connection using LTE modem (optional)

