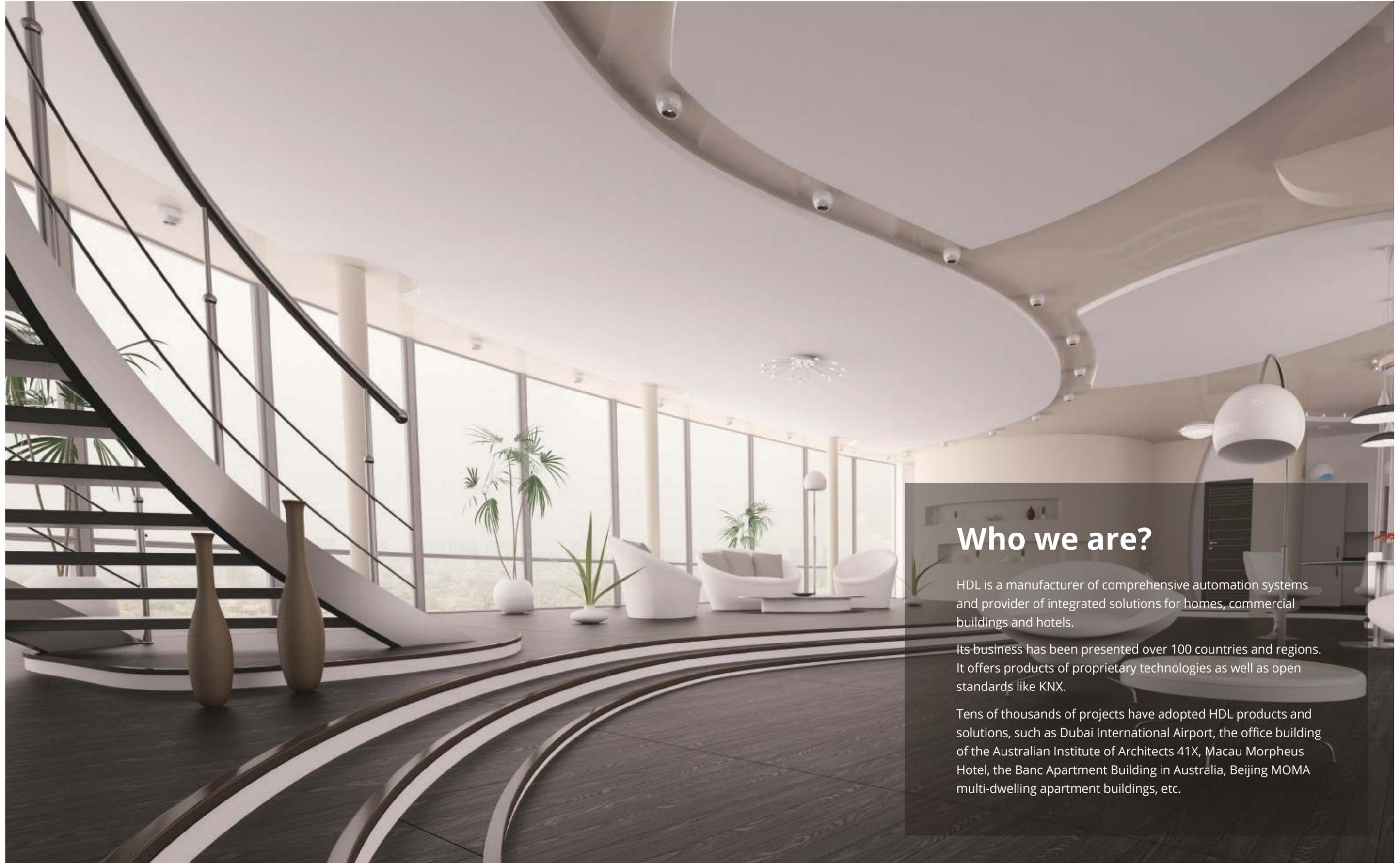


Smart Home Solutions

Everything you need to know.





Who we are?

HDL is a manufacturer of comprehensive automation systems and provider of integrated solutions for homes, commercial buildings and hotels.

Its business has been presented over 100 countries and regions. It offers products of proprietary technologies as well as open standards like KNX.

Tens of thousands of projects have adopted HDL products and solutions, such as Dubai International Airport, the office building of the Australian Institute of Architects 41X, Macau Morpheus Hotel, the Banc Apartment Building in Australia, Beijing MOMA multi-dwelling apartment buildings, etc.

Contents

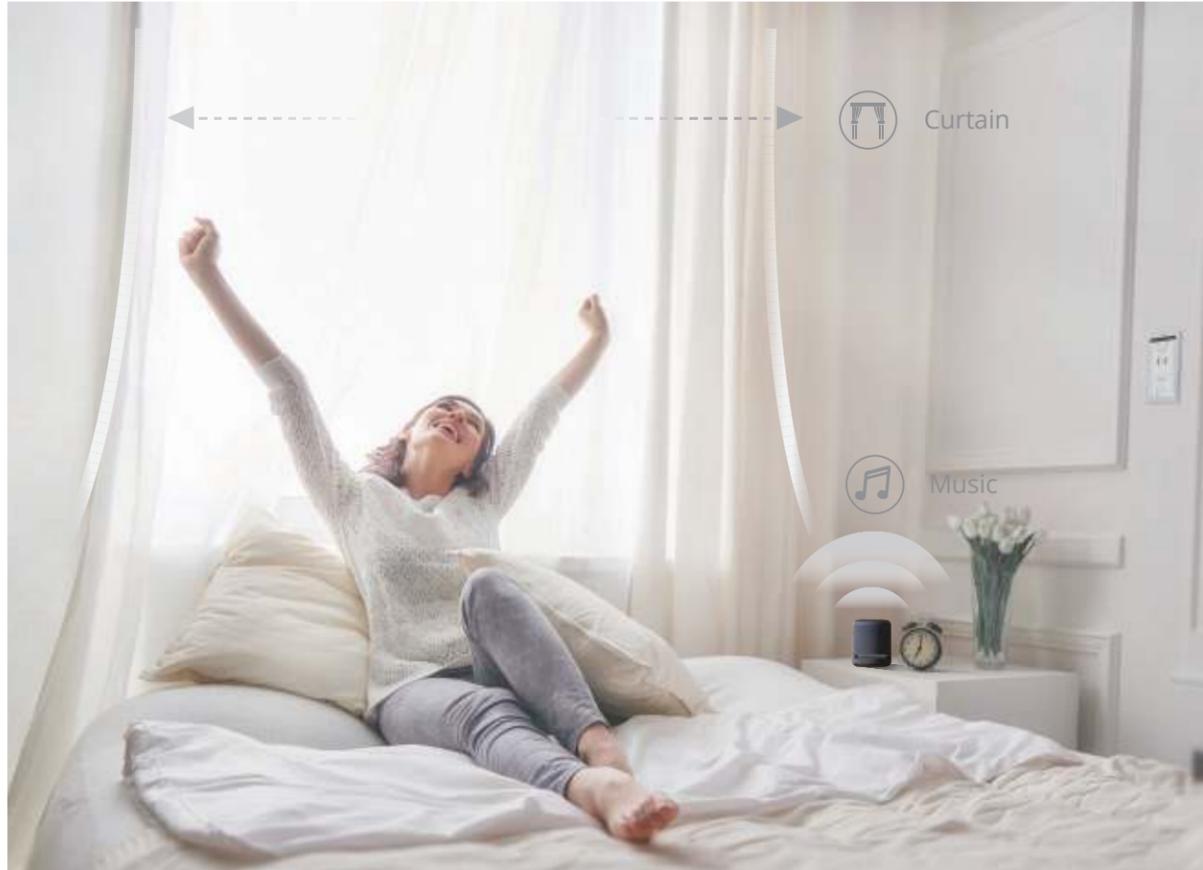
Some typical scenarios with smart home	01-10
Complete and integrated smart home experience	11-36
Personalized whole-home solutions	37-48
The powerful technology behind these solutions	49-51
Smart home app HDL ON	52
Smart panels	53-64
Case studies	65-73
Products	74-84



Some typical scenarios with smart home

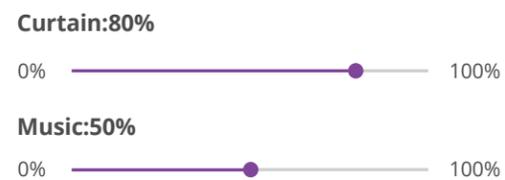
Smart home technologies can naturally merge into our daily life. Look at the following scenarios, you will clearly know how we can benefit from home automation.





7:00 a.m. Get up

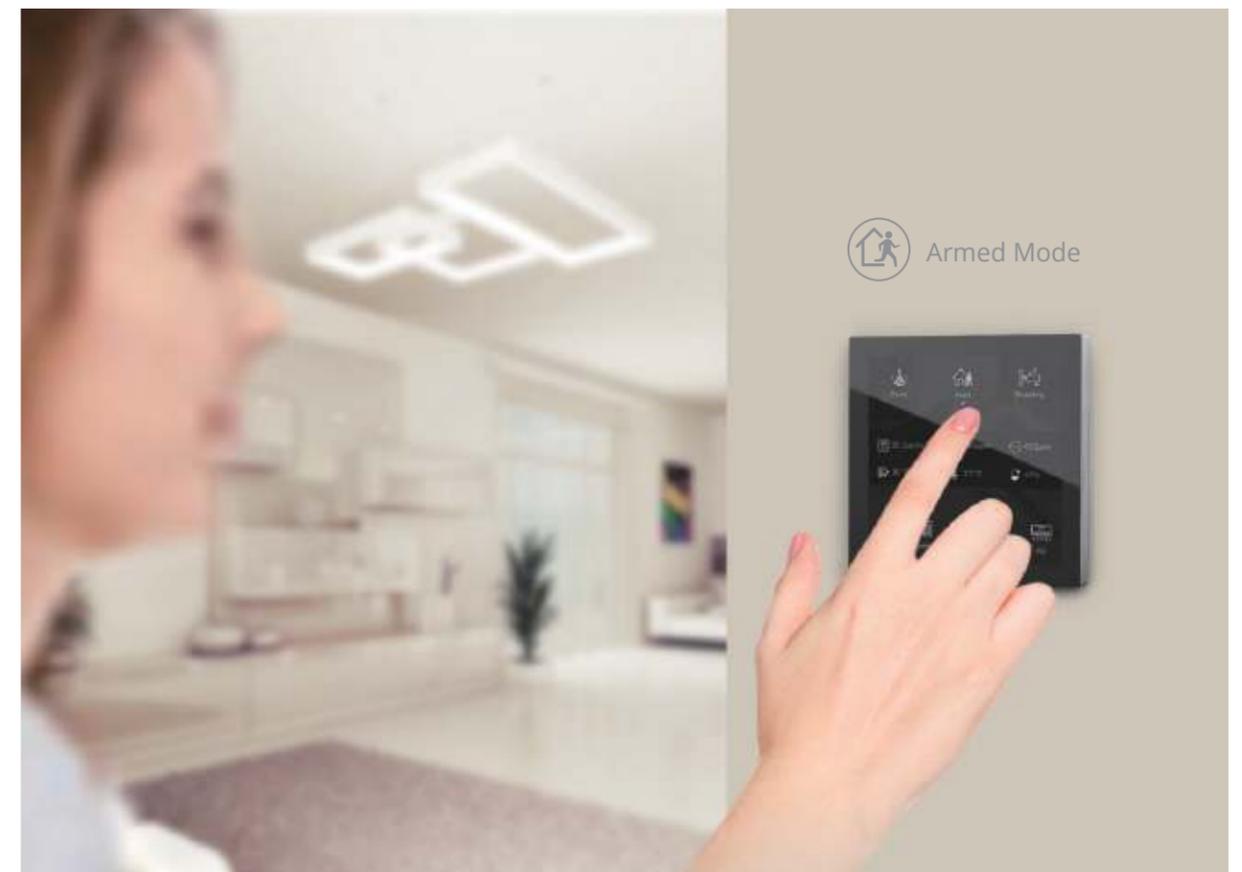
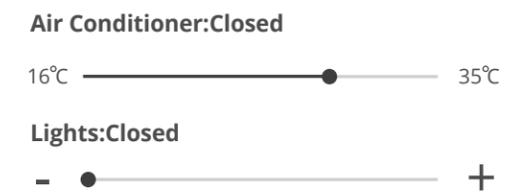
The beautiful music sounds out in air as the curtains slowly open. The sunshine spreads on your bed and wakes you up...Welcome to a brand-new day.



8:00 a.m. Go to work

Ready to go? Press the "Away" button on the smart panel, your garage door will open while the system is shutting down the air-conditioner and other devices.

The entire home will be on "Armed" mode. You just go to work in a peaceful mind and won't be bothered by any concerns.





5:00 p.m. Set the temperature before home

It's about to leave work. You take out your phone to turn on the air-conditioner in the living room, and set it to the right temperature. But if it's in winter, you can remotely turn on the heating system. When you walk into your home, the indoor temperature is already at a comfortable level.

Air Conditioner(Summer):25°C



Floor Heating(Winter):22°C



10:00 a.m. Check up on your home during a break

It's time for a break. Open the HDL smart home app on your phone and see if everything is good at home. Seeing your cute puppy is enjoying the sunshine in the garden, you forget about work pressure and feel relieved.





6:00 p.m. Back home

Pick up your kid from school and drive back home. The garage door automatically opens. The lights in the garage and along the doorway are also turned by the system. You unlock the front door with your fingerprint. A personalized Back Home mode is triggered as the Armed mode is disabled. You happily watch your kid run into this comfortable home.

Garage:

Open Close

Access Control System:

Open Close

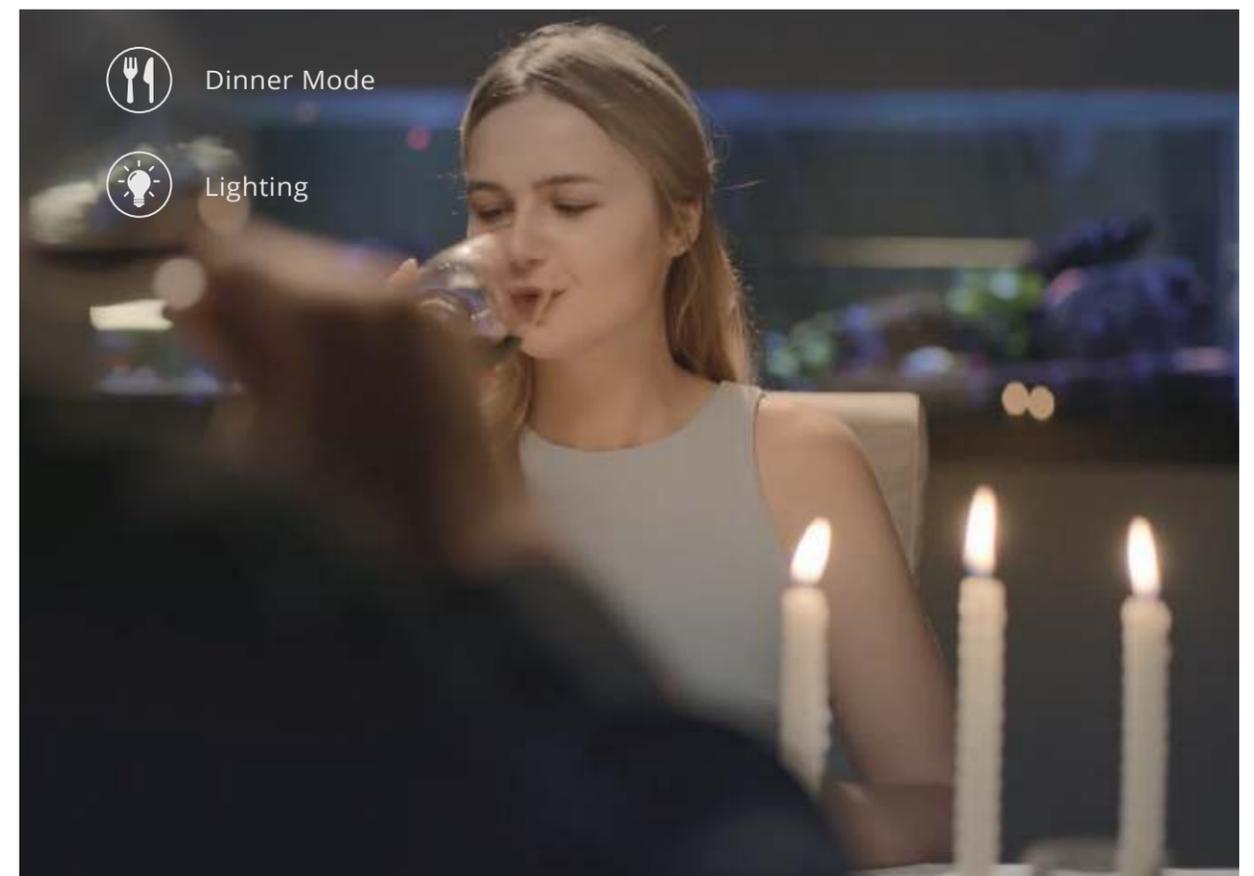
7:00 p.m. Dinner

Prepare a big dinner under the pleasant background music. Select the Dinner Mode. Then the light over the table turns soft and warm as the curtains automatically close. Sit down with your loved ones to enjoy the delicious food with cheerful chats.

RGB Light Color:



Brightness:80%





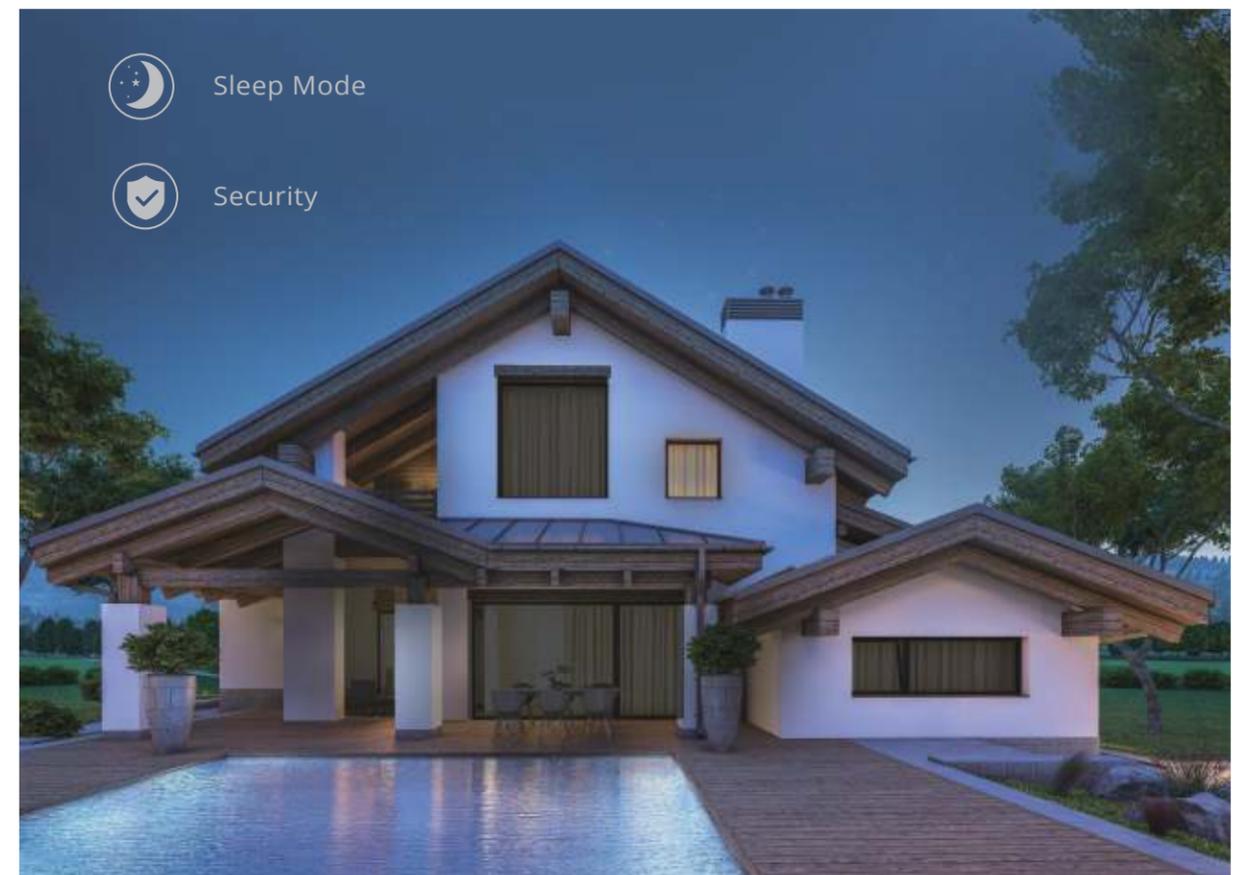
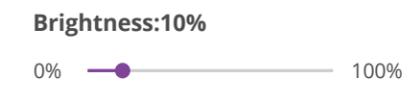
9:00 p.m. Recreation

There are various ways to spend the time at home. You may have fun with your family, or invite some friends over for a get-together. Regardless what activities are undergoing at home, you just need to press one button to set everything into the right ambience: Meeting Mode, Dinner Mode, Party Mode, TV Mode, Movie Mode, etc.



11:00 p.m. Go to bed

When the kid falls asleep, select the "Reading Mode" and the reading lamp is on. Read a few pages of your favorite book. Press the "Good Night" button when you feel tired. The lights gradually dim down to dark, the air-conditioner switch to Sleep Mode, and the system enables the "Night Security" mode. You start the sweet dream under such cozy ambience.





- Lighting 
- Shading 
- Climate Control 
- Music 
- Scene control 
- Safety and Security 
- Automatic control 

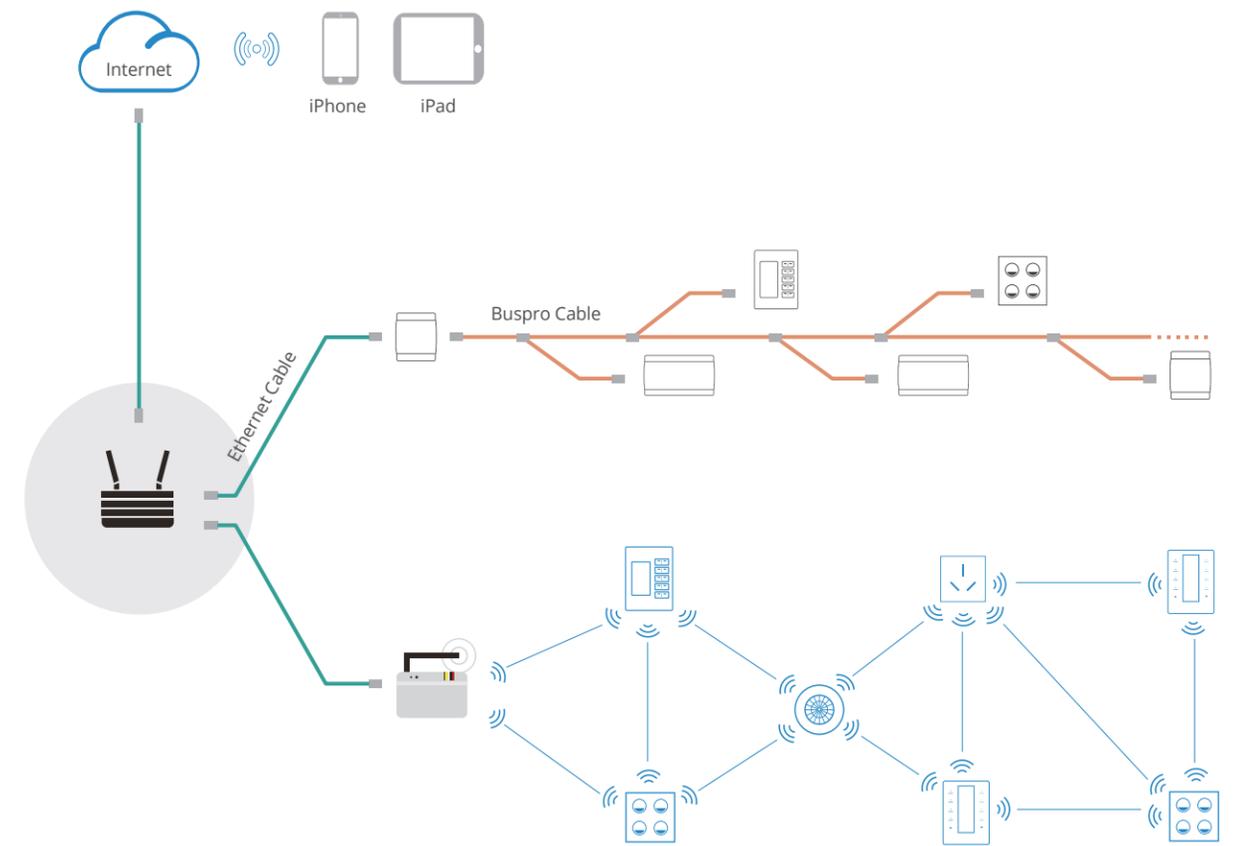
Complete and integrated smart home experience

HDL connects your lights, curtains, air-conditioners and other devices into the system, and allows you to control them on a mobile phone, tablet or wall panel. For example, you can turn off the lights with a phone on the way to work. With the settings of sensors and logic conditions, the system can also run the tasks automatically. We offer you smart home solutions that are able to integrate various functions and cover every area of your home.



Being smart means your home somehow knows what you need and takes care of you. When you arrive home in the day time, it opens the curtains for you. But when you come back in the evening, it will turn on the lights for you. It ensures that every time you are walking into a properly lit room.

buspro + buspro WIRELESS
 Mixed Application of Wired and Wireless Systems



We have both wired and wireless solutions. Tell us what you need. We will design personalized solutions right for you. You can choose what rooms to automate and what functions to implement. It's that simple.



Lighting



Shading



Climate Control



Music



Scene control



Safety and Security



Automatic control



The smart systems of HDL can connect with various lighting devices.
We make lighting control simpler and more interesting.



Brightness: 53%

0% ————— 100%



RGB Light Color:



Brightness

Apart from turning ON/OFF the lights, you can adjust the brightness as well with HDL. The interface on our wall panel or mobile app shows you the brightness in percentage. Drag the slider on the interface and you will get the exact light for your ongoing activity.

In some cases, you can set the fade-in and fade-out time of brightness change to make the process smooth and comfortable.



Colors

HDL offers you full control of light colors. Whether you are having a romantic dinner or a cheerful party, you can always easily set the perfect lighting effect with colors.



Color temperatures

From cold to warm, different color temperatures of light may give us a different mood. We need cold light in the hot summer to cool us down. Warm light on foods can increase our appetite... Set your mood with HDL.



Granite Display



- Lighting 
- Shading** 
- Climate Control 
- Music 
- Scene control 
- Safety and Security 
- Automatic control 

We put up curtains to adjust the amount of natural light in our room, because it directly affects our comfort. HDL let you adjust the position of curtains effortlessly.



Curtains or blinds

HDL smart home system is able to control curtains and blinds. You can always find the right solution for your windows.

Stop at any position

In the home automated with HDL, your curtains don't have to be fully open or closed, they can be stopped at any position to let in perfect amount of light.

Super quiet

The sound made by the curtain motor is lower than 35dB. It won't disturb your sleeping baby.



Lighting



Shading



Climate Control



Music



Scene control



Safety and Security



Automatic control



Air conditioning



Floor heating



Air quality

HDL smart home can automatically run the air-conditioning, heating and ventilation system. It keeps the ambience healthy and comfortable for your family. It also gives you intuitive and convenient ways to do it manually. For example, you can set your AC temperature with a mobile phone, or simply touch the wall panel right beside you.



Save energy by automating climate control

If your windows are left open for a certain period, say 60 seconds, your HDL smart home can automatically shut down the air conditioning or heating systems to avoid wasting energy. In the meantime, you will be notified on your phone.

-  Lighting
-  Shading
-  Climate Control
-  **Music**
-  Scene control
-  Safety and Security
-  Automatic control



Your background music can also link with Scenes. For example, Dinner Mode can go with a piece soft music while controlling the lights over dining room.

HDL offers background music control in smart home solutions. You can play music from an SD card, a USB drive or your phone. It allows you to manage the music on a wall panel and mobile devices.



Control Panel



HDL On App



Lighting



Shading



Climate Control



Music



Scene control



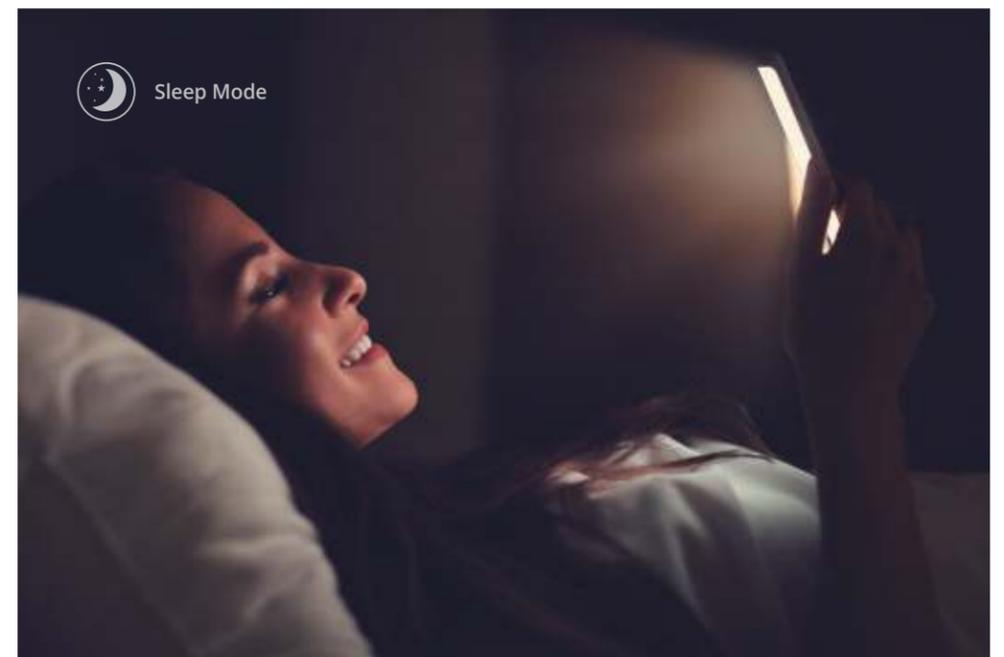
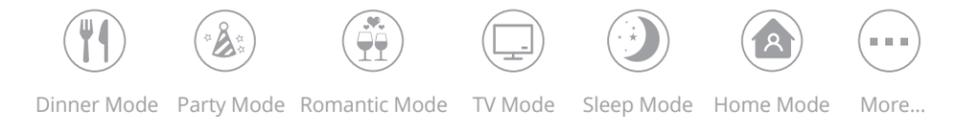
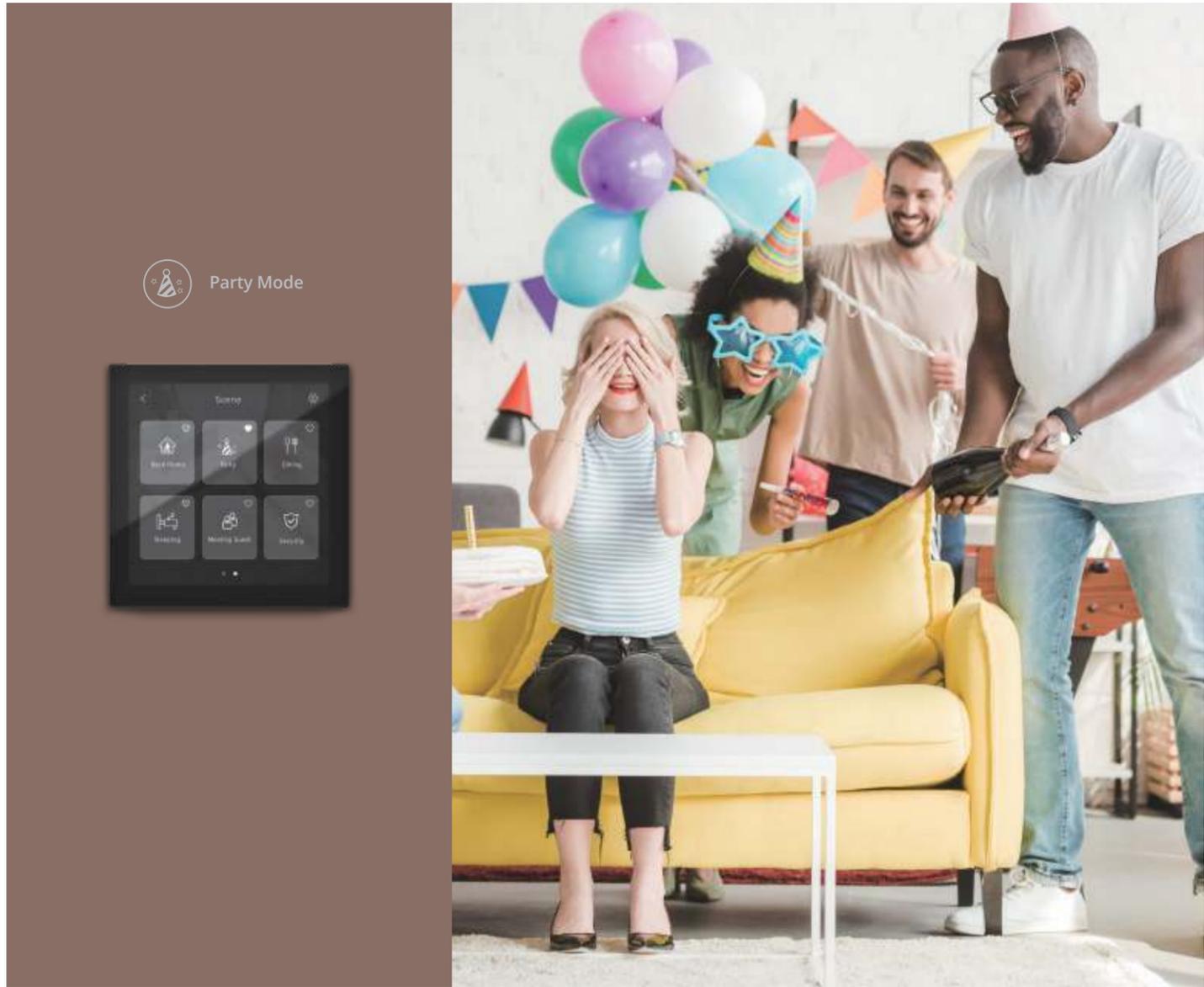
Safety and Security



Automatic control



Scene control provides great convenience to control multiple devices. Just one button away to set the perfect ambience for your activity. For example, we can create a "Romantic" mode, which when you select it, the system will close curtains, turn on color lights and play soft music.



You can select a Scene on a wall panel, mobile phone or the door lock with your fingerprints. What's more, different finger prints can be linked to different Scenes.

-  Lighting
-  Shading
-  Climate Control
-  Music
-  Scene control
-  **Safety and Security**
-  Automatic control



Smoke detection

When smoke is detected, the system will trigger alarms in the house. Meanwhile, notifications will be pushed to your phone.

Safety and security are the premises of everything else at home. HDL smart home solution takes care of your home by integrating various devices and functions such as sensors. With HDL smart home, there are many ways to better protect our family.

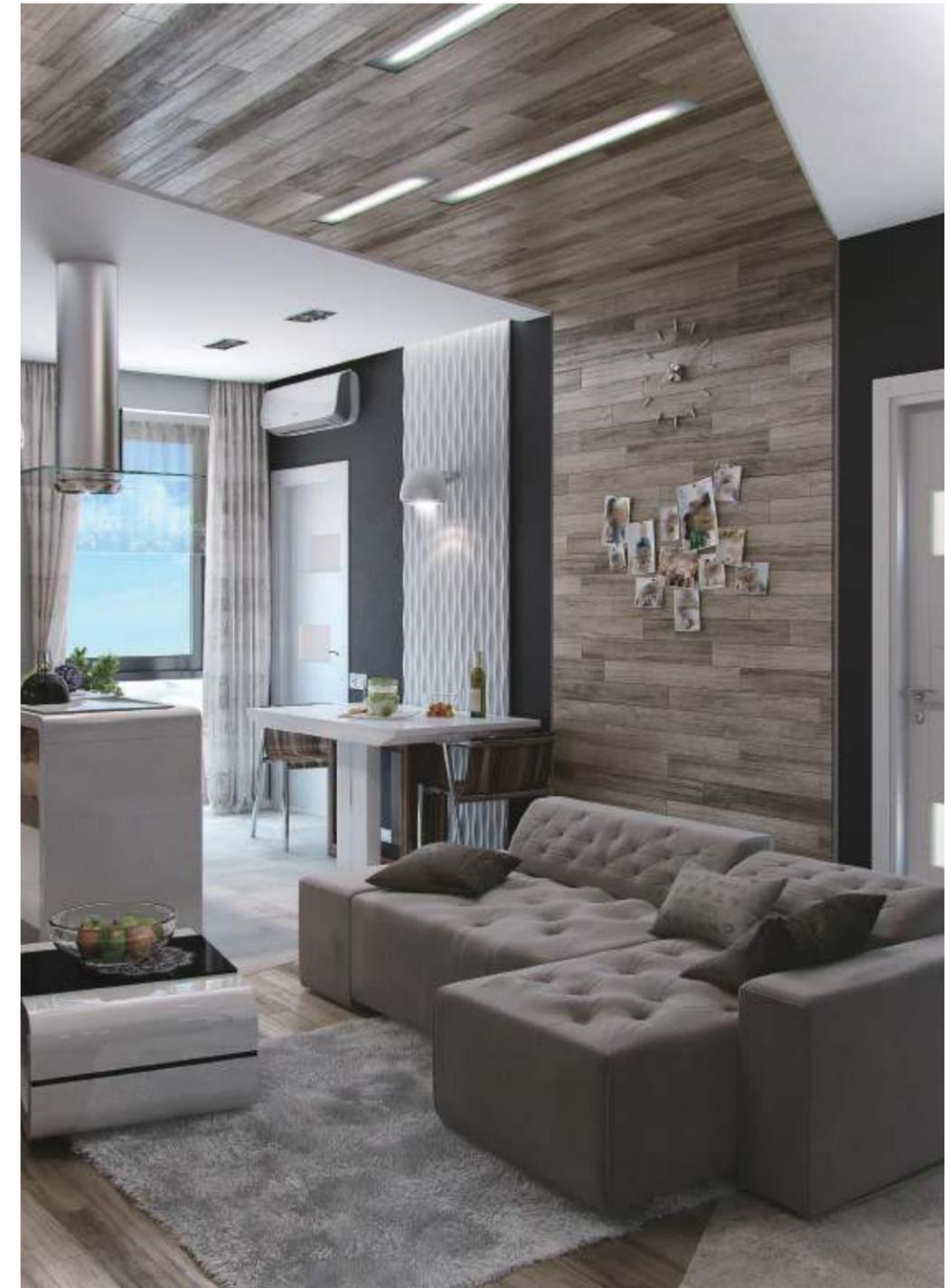


Intruder detection

You can enable the "Armed" mode to protect your home from intruders. When your doors or windows are opened without permission, your HDL smart home will scare away the intruder by alarms, turning on lights or other devices. You will be notified via your phone so that you can take any actions needed.

Security cameras

Wherever you are, you can always learn about the situation of your home by viewing video images on your phone.



Scene simulation

Turn on lights, play music, open and close curtains like someone's at home. Prevent possible intrusion when you are away from home.



Lighting



Shading



Climate Control



Music



Scene control



Safety and Security



Automatic control

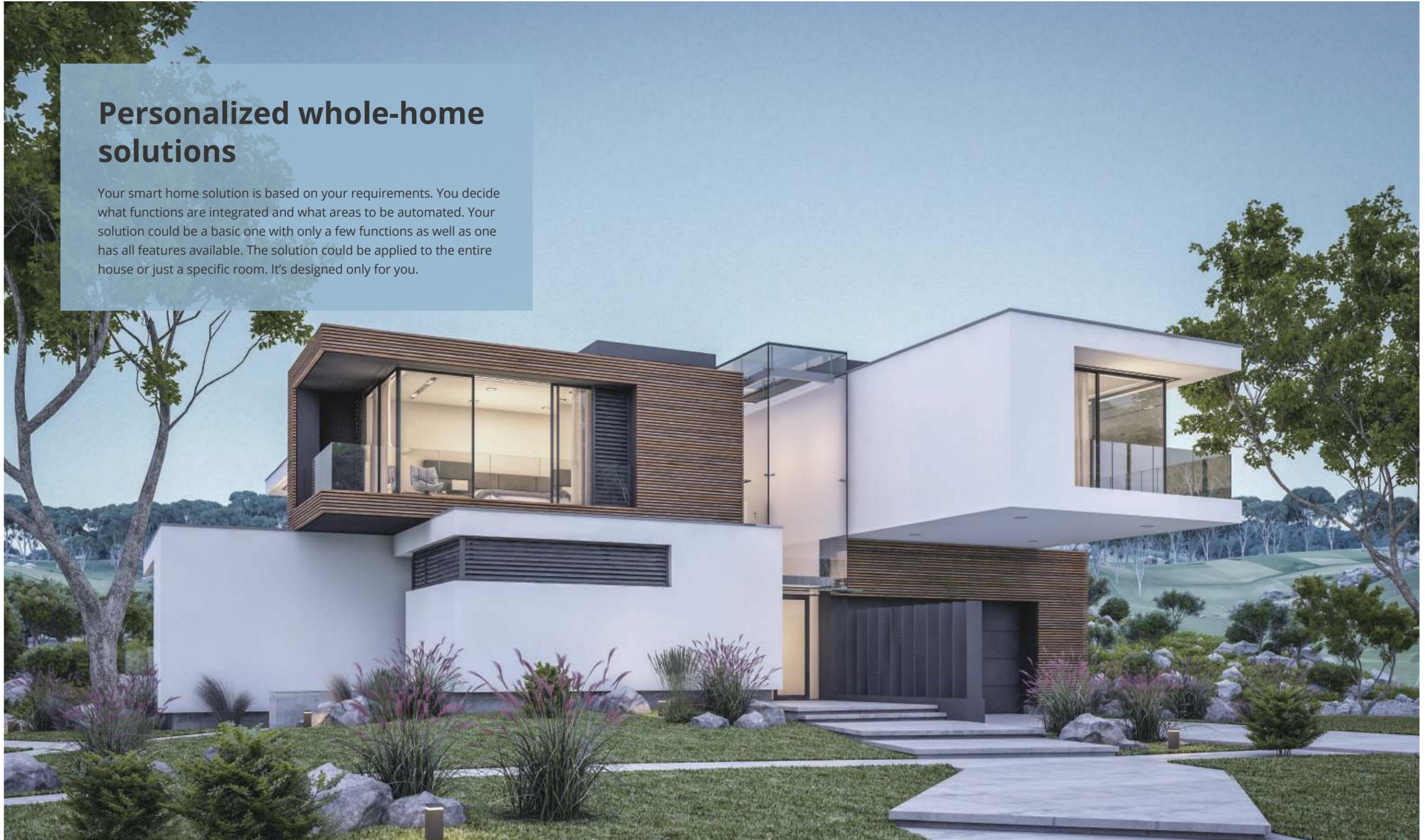


With logic settings in the system, devices or functions can be linked to achieve advanced smart features. In many cases, the system makes the judgement and run the tasks automatically. User interference can be largely reduced.

For example, when you turn on the TV in the day time, the system can close the curtains to make the ambience lighting better for watching TV. If you turn on the TV in the evening, it can dim down the lights.

Personalized whole-home solutions

Your smart home solution is based on your requirements. You decide what functions are integrated and what areas to be automated. Your solution could be a basic one with only a few functions as well as one has all features available. The solution could be applied to the entire house or just a specific room. It's designed only for you.



Solutions for condo

Solutions for apartments



- Basic
- Lightbulb icon
 - Speaker icon
 - Door icon
 - Ellipsis icon

- Standard
- Lightbulb icon
 - Speaker icon
 - Door icon
 - Printer icon
 - Music note icon
 - TV icon
 - Ellipsis icon

- Premium
- Lightbulb icon
 - Speaker icon
 - Door icon
 - Printer icon
 - Music note icon
 - TV icon
 - Video camera icon
 - Waves icon
 - Water drop icon
 - Thermometer icon
 - Ellipsis icon

- Basic
- Ellipsis icon
 - Door icon
 - Speaker icon
 - Lightbulb icon

- Standard
- Ellipsis icon
 - TV icon
 - Music note icon
 - Door icon
 - Speaker icon
 - Lightbulb icon

- Premium
- Ellipsis icon
 - Waves icon
 - Printer icon
 - TV icon
 - Music note icon
 - Door icon
 - Speaker icon
 - Lightbulb icon



Living Room



TV&Home Cinema



Music



HVAC Control



Lighting



Shading



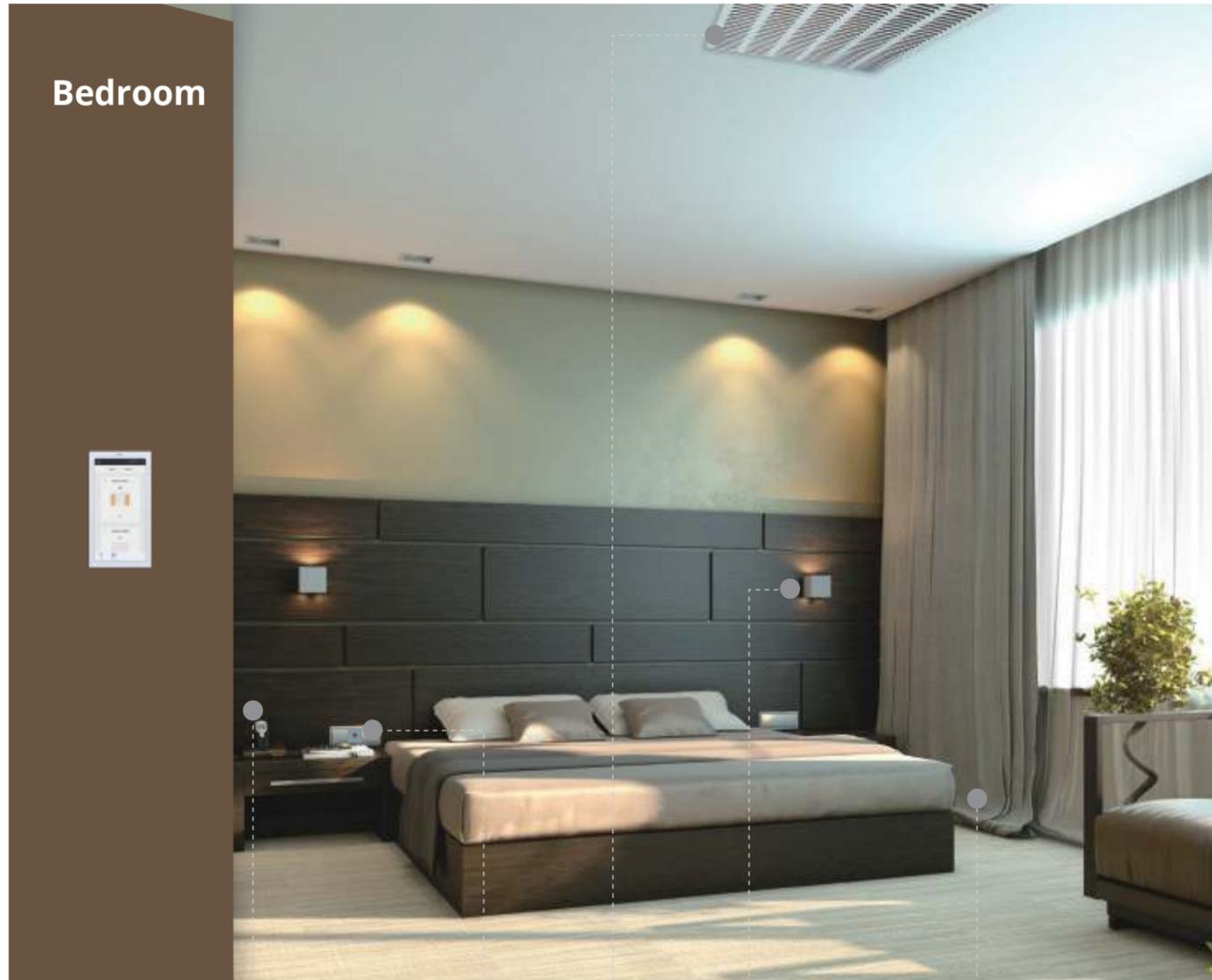
Floor Heating



Security



Intercom



Bedroom



Music



Emergency Panel



Air Conditioning



Lighting



Shading



Dining Room



Shading



Music



Lighting



Air Conditioning



Lighting



Gas Leakage Detection



Gas Valve



Heat and Smoke
Detection



Ventilation
Control



Emergency
Panel



Lighting



Garage



Garage Door Control



Lighting



Garden



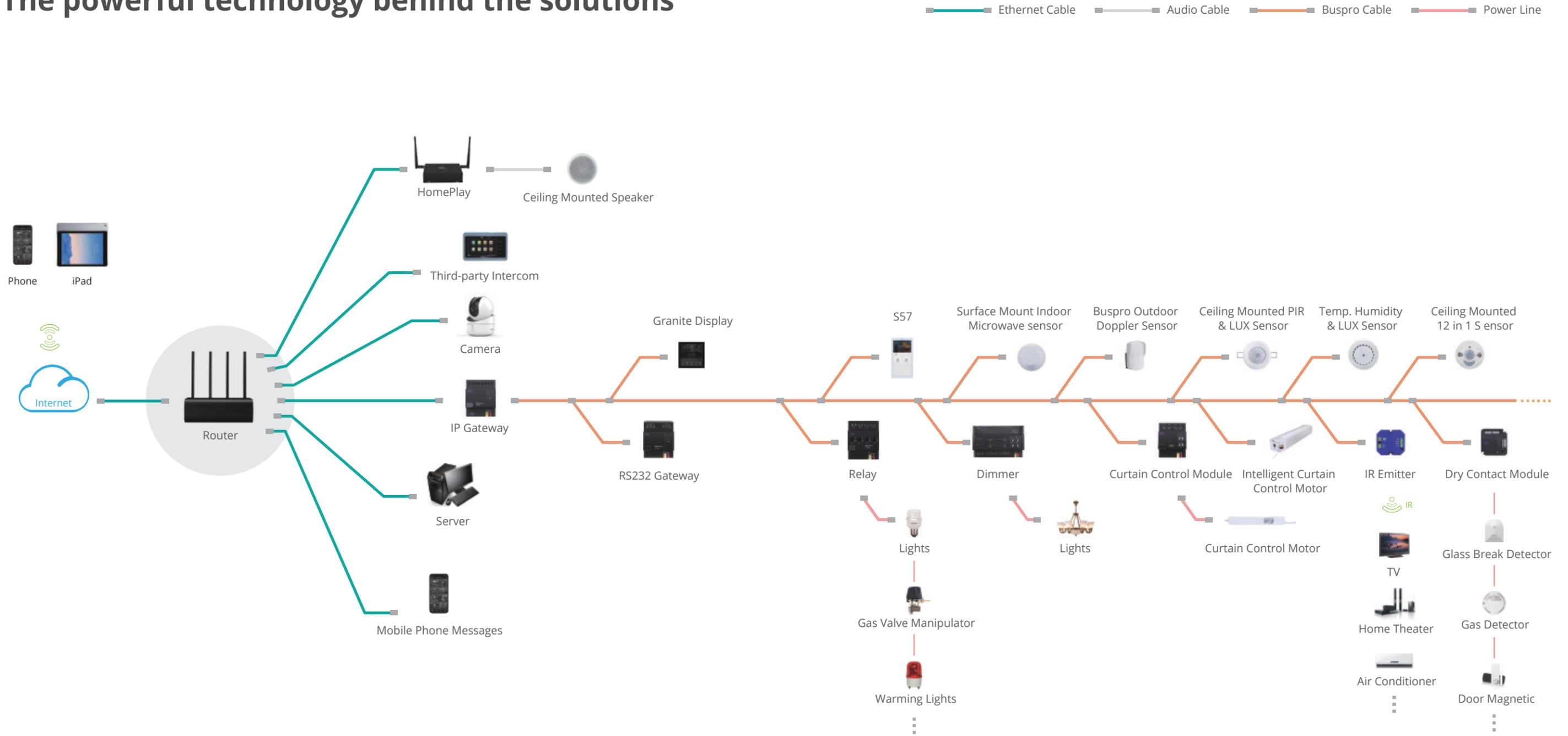
Lighting



Irrigation



The powerful technology behind the solutions



HDL has provided numerous of smart home projects with products and solutions. Most of the solutions are based on our proprietary technology Buspro, which consists of wall panels, controllers, sensors, software and other components.

Buspro, based on RS485, is distributed system that able to connect with various devices and appliances such as lighting devices, air-conditioners, motorized curtains, etc. It allows users to control or manage their home with a smart phone, tablet or wall-mounted smart panels. With sensors and logic settings, automatic control is also available. Smart home solutions are designed with Buspro to meet different requirements.



Buspro can integrate with Amazon Alexa and Google Assistant. Add HDL Smart Home to your Skills and control your home by speaking.

Smart home app HDL ONON

HDL ON is the official smart home app from HDL. it's available for both iOS and Android platforms. You can access to all functions of your smart home via this app.



Smart panels

In most cases, people can use a mobile app to control everything connected to a smart system. However, smart panels, or, most of the time wall panels, are essential to an automation project. The reasons are obvious.

- A wall panel is a redundancy or backup that guarantees you still have your devices under control when you are not able to use the mobile way. For example, in the case that when you lose your phone.
- It is preferred by the users that don't like tweaking on a smart phone.
- A wall panel possibly can serve as an ornament that adds credits to the aesthetics of the interior decoration of a building.

HDL offers various types of smart panels. You can always find one for your project.



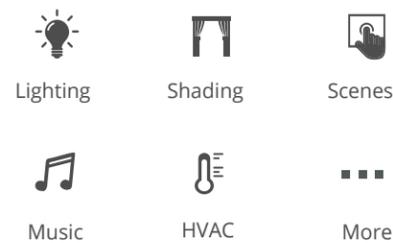
Granite Display



Granite Display is a multifunctional touch-control panel with 4-inch high-resolution display. You can quickly access the most frequently used functionality or scenes by the short-cut buttons on the home screen.

And you may change the short-cut settings as you wish. As you explore more on the user interface, you may find it different but comfortable controlling your home devices on Granite Display.

- Built-in proximity sensor
- Built-in temperature and humidity sensor
- Adjustable screen backlight brightness
- Colors: Space Gray ■ Arctic Silver ■
- 4-inch 720 x 720P HD touch display
- Available for: [buspro](#) [KNX](#)



Granite

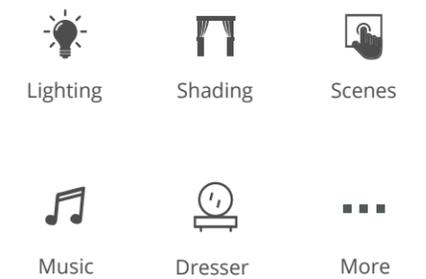


Granite is a push-button panel with premium metal finish. The RGB indicators, icons and the firm button feedback all together make your control comfortable and intuitive.

Available for:

- 4 Buttons Smart Panel (EU)
- 6 Buttons Smart Panel (US)

- Premium metal finish
- Natural and comfortable push feedback
- Endures at least 100,000 times of pushes
- Power supply: DC 24V
- Color: Arctic silver ■ space gray ■ rose gold ■
- Dimensions: 86 x 86 mm (EU), 86 x 116.5 mm (US)
- Available for: [buspro](#) [KNX](#)

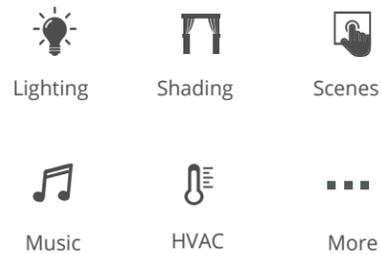


S10

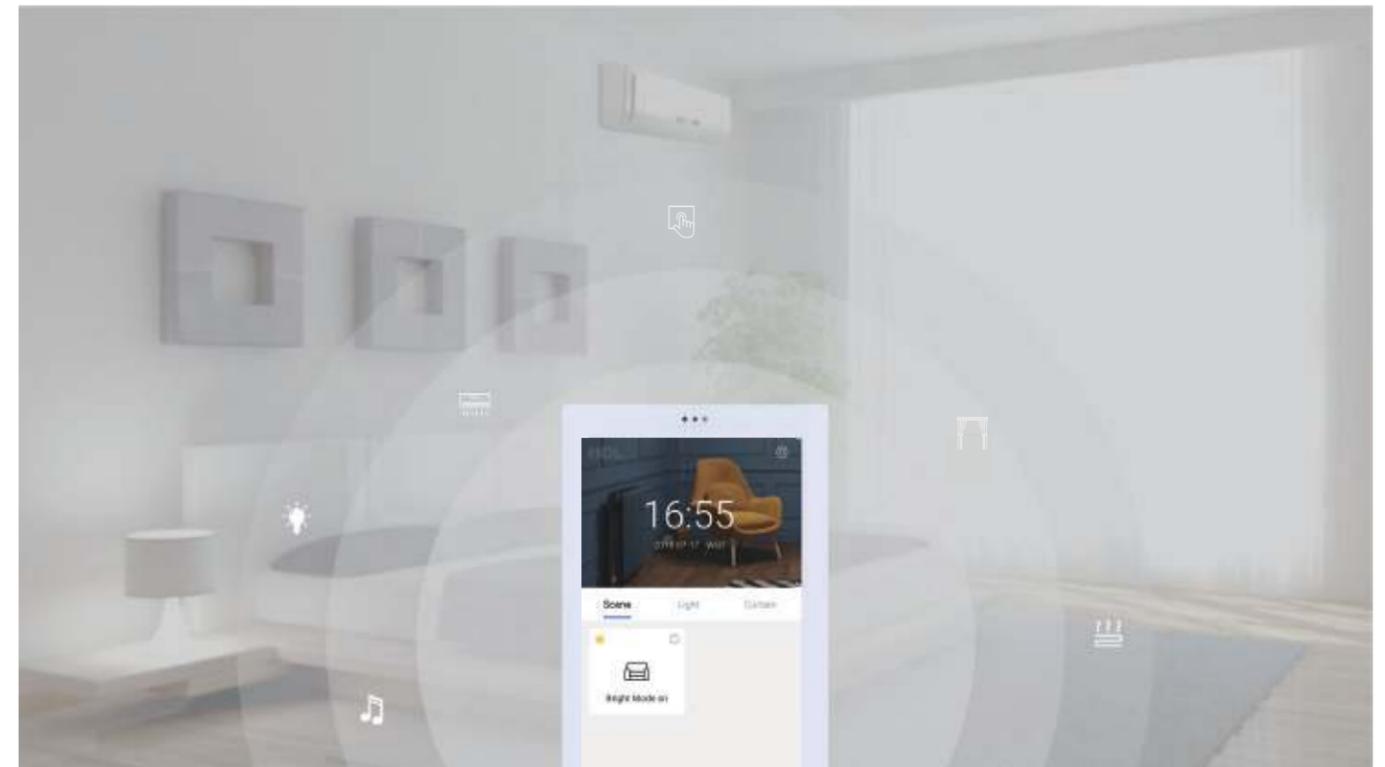


S10 is a touch panel equipped with a 10.1-inch 800 x 1280P HD display and a dedicated user interface. With the excellent industrial design and UI, a panel of such size will just make your building more beautiful apart from its tech features.

- 10.1-inch 800X1280P display
- Built-in real-time clock (RTC)
- Built-in proximity sensor, temperature sensor
- Power supply: DC 9 ~ 25V
- Available for: **IP buspro**



S57



S57 is a multifunctional touch-control panel with a 5.7-inch display. It is equipped with high performance CPU and uses WallApp as the default user interface. You can easily control every device connected to the smart system just by flipping your fingers on the screen.

- 5.7-inch 1280 x 640P display with 18:9 aspect ratio
- Built-in proximity sensor, brightness sensor
- Built-in microphone and speaker
- Power supply: DC 24V or PoE
- Available for: **Bluetooth WiFi IP**



Tile



The basic unit of Tile is a keypad or socket panel in EU standard. You can use just one unit if it meets your requirement, or combine multiple units to serve more functions in a specific area. Tile series comes with two versions of different materials: metal and plastic. Each one is able to give you a sense of premium quality, either with the refined sandblasting finishes on the metal one or the skin-like touch feeling on the plastic one.

- Supports various types of control targets
- Flexible combinations for required functions
- RGB icon backlight
- Customizable button icons
- Users are allowed to set the colors of icon backlight
- Available in two materials
Plastic:86×86×11(mm)
Metal:90×90×11(mm)

Available for: **buspro** **KNX**

Available in four colors:

Metal: Space Gray  Champagne Gold 

Plastic: Ash Gray  Ivory White 

Horizontal:



3-gang



4-gang

Vertical (Metal Version Only):



3-gang



4-gang

Enviro



Enviro is a touch-control panel equipped with a 4.3-inch display. It allows you to control lighting, curtains, HVAC, music and more functions effortlessly on its graphic user interface. What you need to do is just a touch on the screen.

Available for: **buspro** **KNX**

Dimensions: 86 x 116.5 mm (US)

Available in two colors: Black  White 

- Color capacitive touch display
- Customizable UI
- Built-in proximity sensor
- Built-in temperature sensor
- Built-in IR receiver
- Built-in real-time clock
- Aluminum frame
- Power supply: DC 24V

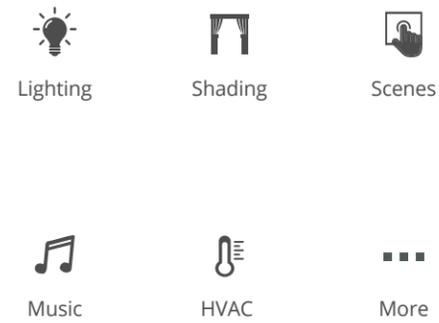


DLP Touch



DLP Touch is designed to offer you a quick and simple touch-control experience. Its face is entirely covered by one piece of glass.

With the LCD in the middle, you can have the icons or text customized. Every time you touch the panel, you clearly know what to control. Not a single thought is needed.



Available for: **buspro** **KNX**

Dimensions: 86 x 116.5 mm (US)

Available in two colors: Black White

- Mono-color LCD
- Customizable icons and captions
- Built-in temperature sensor, proximity sensor, IR receiver
- Aluminum frame
- Power supply: DC 24V

DLP



If you prefer physical buttons but want to have a display to indicate the control targets, then the DLP panel is here for you.



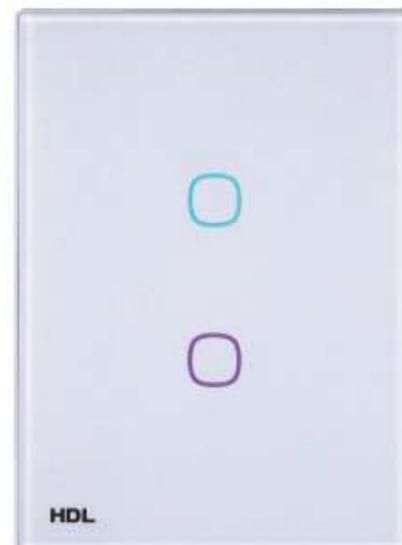
Available for: **buspro** **KNX** **buspro WIRELESS**

Dimensions: 86 x 86 mm (EU), 86 x 116.5 mm (US)

Available in two colors: Black White

- Mono-color LCD
- Supports 147 languages
- Customizable icons or captions
- Built-in temperature sensor
- Aluminum frame
- Power supply: DC 24V

iTouch



iTouch is always a great option if you are looking for a beautiful keypad of minimal design. Its body is enclosed by a fine aluminum frame, while the face is a piece of glass with touch buttons. It perfectly matches any interior decoration.

- | | |
|--------------------------|--------------------------|
| Available for(EU) | Available for(US) |
| • 2 Buttons | • 2 Buttons |
| • 4 Buttons | • 4 Buttons |
| | • 6 Buttons |

- Touch button with RGB backlight
- Aluminum frame
- Supports online upgrade
- Power supply: DC 24V
- Dimensions: 86 x 86 mm (EU), 86 x 116.5 mm (US)

Available for: **buspro** **KNX**

Available in two colors: Black White

iFlex



What do you think is the easiest way to put an icon or caption on a button? Right, we can draw an icon or write a caption on a piece of paper, and place it on the button. And we call that piece of paper a tag. This is the idea of HDL iFlex.

- | | |
|--------------------------|--------------------------|
| Available for(EU) | Available for(US) |
| • 2 Buttons | • 4 Buttons |
| • 4 Buttons | • 8 Buttons |
| • 6 Buttons | |
| • 8 Buttons | |

- Push button with removable tags
- Aluminum frame
- Power supply: DC 24V
- Dimensions: 86 x 86 mm (EU)
86 x 116.5 mm (US)
- Available for: **buspro** **KNX**

Lighting	Shading	Scenes
Music	Ventilate	More

Case Studies

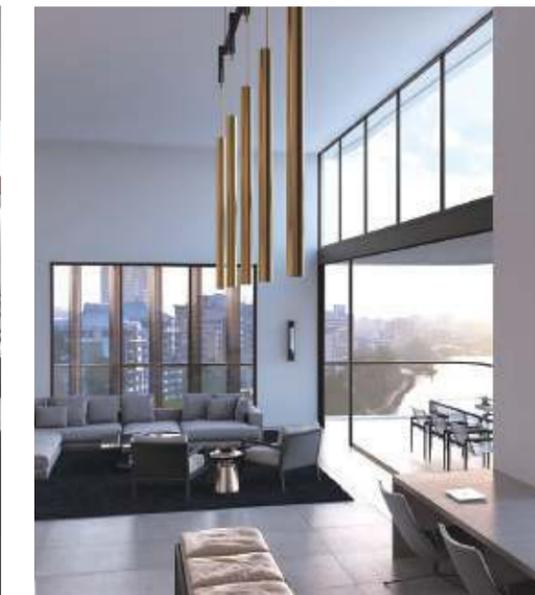
From condos to multi-apartment buildings, from cottages to mansions, there are plenty of homes using HDL products or solutions. Here are some of the projects we would like to share with you.



Banc Apartment, Australia

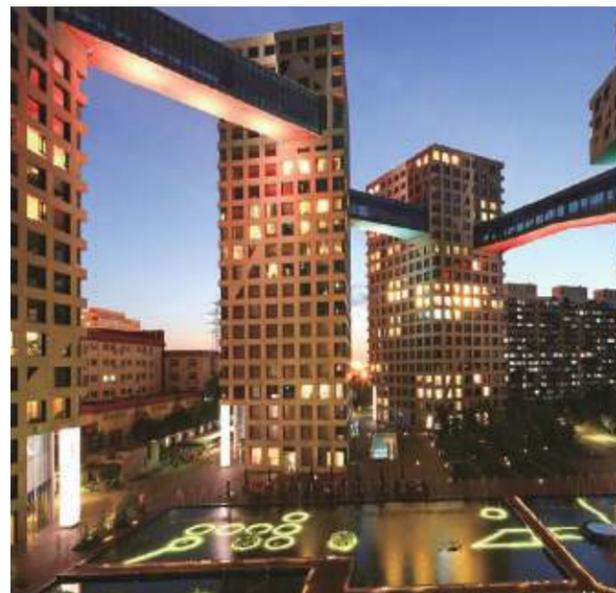
As an impressively designed building, Banc was regarded as one of the premier apartment buildings in Brisbane. HDL installed a fully automated smart home system for the 34 high-end apartments, including lighting control, HVAC control and music control and intercom system.

-  Panel
-  Ipad
-  Lighting
-  Floor Heating
-  Music
-  Intercom



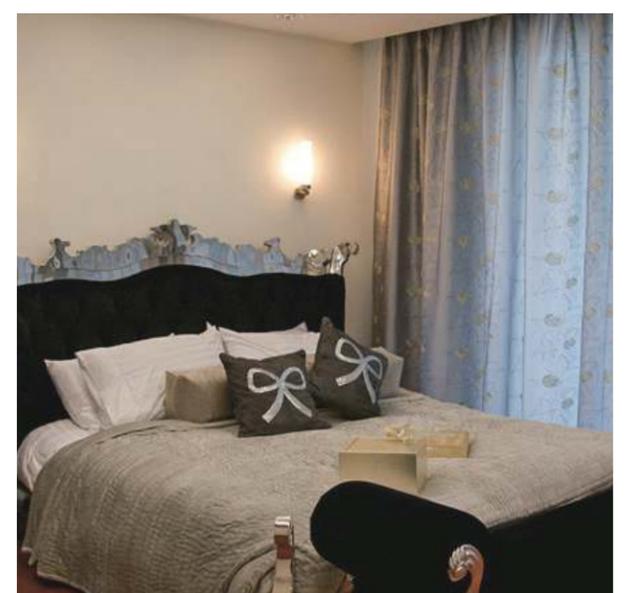
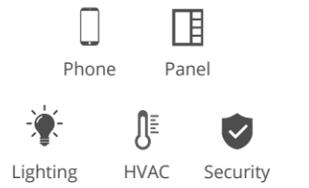
Beijing MOMA Apartment Buildings

Located in the Chaoyang District of Beijing, the MOMA Apartment buildings accommodate most of the families of diplomats. HDL Buspro system was installed in 119 apartments of T7 and T8 buildings for lighting control and background music control.



2010 Guangzhou Asian Games Village

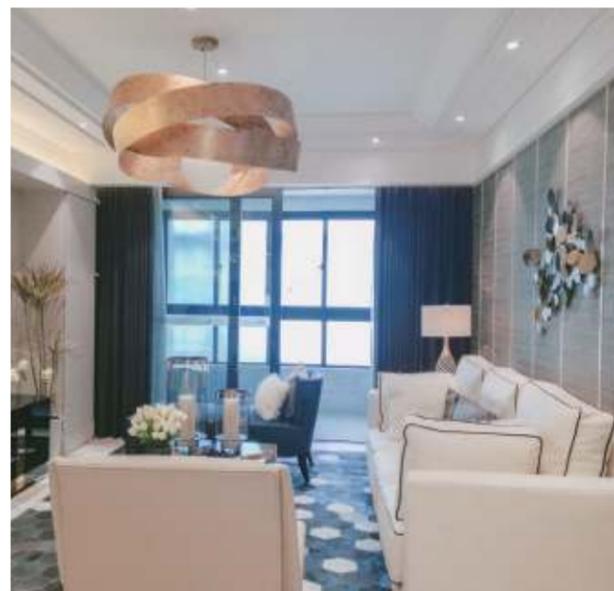
To prepare for the 2010 Guangzhou Asian Games, the government built the Asian Games Village where 60 apartments were for technical officials. HDL intelligent control system was installed in these 60 apartments for lighting control, AC control and security.



Tianyue Project of Poly Real Estate in Nanjing, China

Tianyue is one of the most expensive real estate projects in Nanjing City. HDL Buspro system was installed in 516 apartments of Tianyue to control lights, air-conditioners, ventilation, floor heating and the video intercom system.

-  Panel
-  Lighting
-  Floor Heating
-  HVAC



Tianlu St. Regis Holiday Villa, Lijiang, China

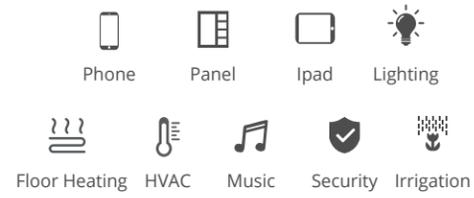
This villa adopted the HDL KNX intelligent control system, which can be connected to the conventional electrical devices and appliances of the villa, such as lights, air conditioners, curtains and so on. With the logic settings and sensors, the system can perform many functions automatically to satisfy the actual needs of this villa.

-  Panel
-  Lighting
-  HVAC
-  Shading



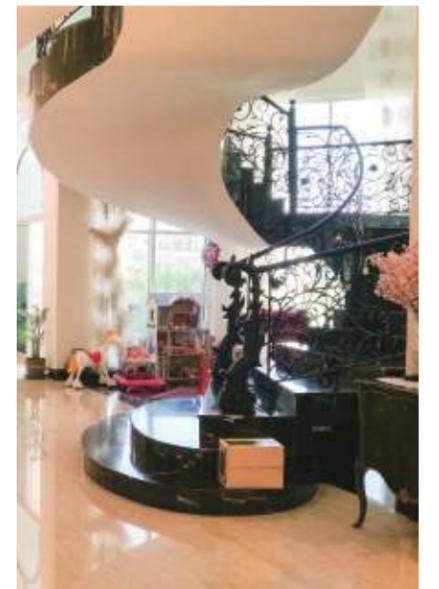
A 3-floor house, Vancouver

This is a 3-floor house in the north of Vancouver, Canada. HDL engineers designed a smart home solution for the owner covering lighting, shading, HVAC, irrigating, safety, security and background music.



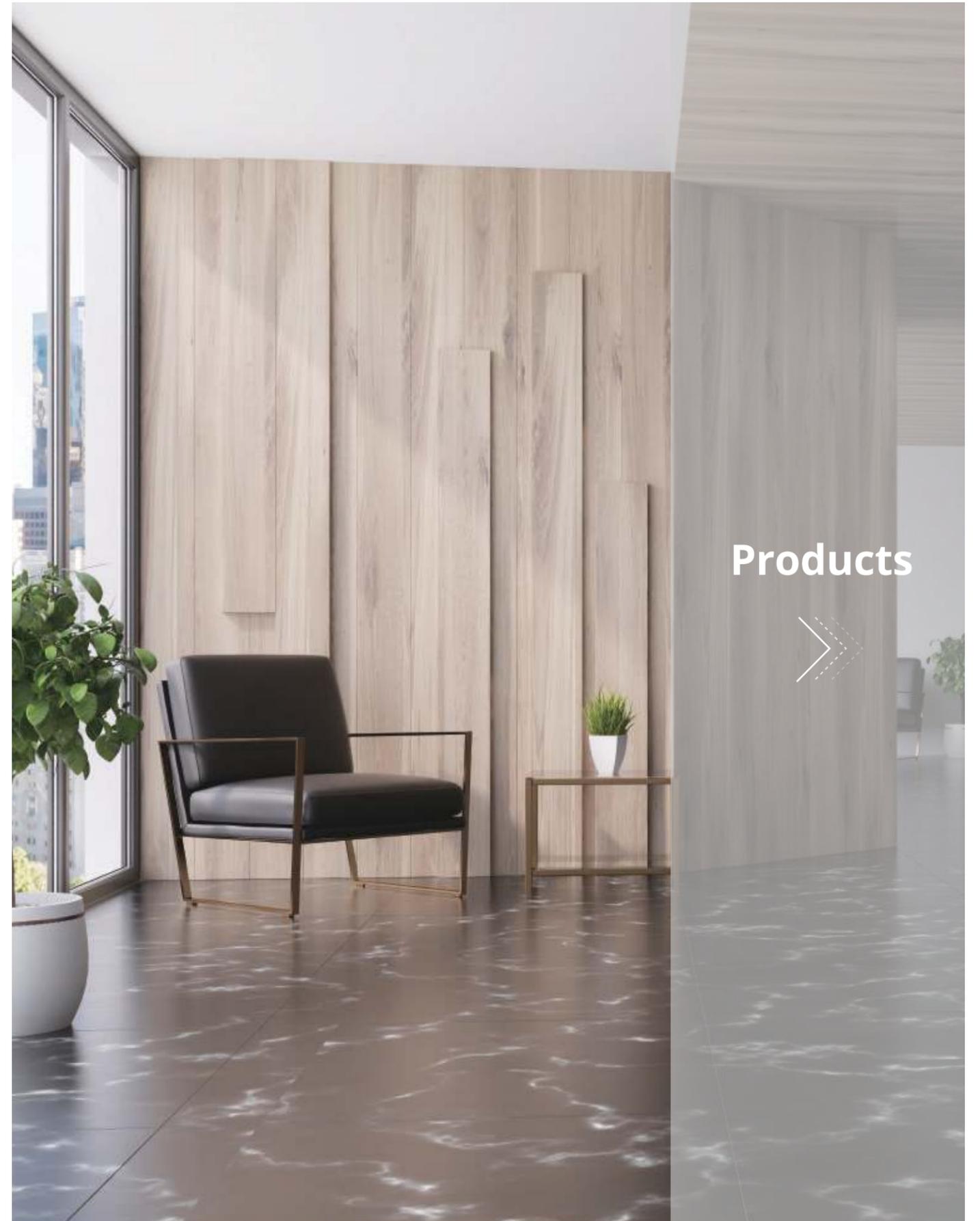
A 3-Floor Villa in Dubai

HDL Buspro intelligent control system was installed in this villa for lighting control and climate control. Its 5 bedrooms, dining room, living room, office, meeting room, lobby, kitchen, gym and garden were all covered with HDL Buspro.



Seaside Holiday Villa in Croatia

HDL Buspro system was installed in this seaside villa. All the lights, blinds, air-conditioners and security cameras were connected to Buspro. Users can easily control the system by HDL wall panels or their mobile phones.



buspro

Control Panel



Granite Display



Granite(EU)



Tile Series OLED Panel



Tile Series Buttons Panel



S57 Touch Panel



Enviro Touch Panel



Modern Series DLP Touch Panel(US)



Modern Series DLP Smart Panel(US)



S10 Touch Panel



iTouch Series Buttons Touch Panel(EU)



iFlex Series Buttons Panel(EU)

Dimmers



4CH 3A Leading Edge Dimming Actuator



4CH 1.5A Trailing Edge Dimming Actuator



2CH 10A Mosfet Power Amplifier



Traic Constant Current Module

Relays



4CH 10A High Power Switch Actuator



4CH 16A High Power Switch Actuator

DMX Controller



64CH DALI Ballast Dimming Actuator



6CH 10A 0-10V Ballast Dimming Actuator



6CH 5A Intelligent LED Dimming Actuator



6CH input & output Module



3CH 650mA LED Driver



48CH DMX Scene Controller



512CH DMX Scene Controller

Shading



6CH 20A High Power Leading Edge Dimming Actuator



6CH 10A High Power Trailing Edge Dimming Actuator



2Ch Motorized Curtain Control Module



Buspro Blind Motor



Buspro Curtain Motor



Curtain Remote Controller

Climate Controller



4CH Electric Fan Controller



6CH Floor Heating Module



Air Conditioning Control Module

Sensor



Wall Mount Outdoor Microwave Sensor



Surface Mount Indoor Microwave sensor



Recess Mount Ultrasonic Sensor

IR Emitter / Dry Contact



Smart IR Transmitter with Current Detection



Infrared Code Learner



4 Zone Dry Contact Module with Temp. Sensor



Recess Mount PIR & LUX Sensor



Surface Mount Temp. Humidity & LUX Sensor



Surface Mount Lux & Air Quality Sensor

Auido



24 Zone Dry Contact Module



HomePlay Network Player



Surface Mount 7in1 Sensor



Surface Mount 8in1 Sensor



Surface Mount 12in1 Sensor

Gateway



1 Port Programming Gateway



RS232/RS485 Gateway



HDL-BUS and KNX-EIB Interface Converter

Security



Security Command Module



Logic Automation Module

System Device



HDL 6 Ports Switch



750mA Power Supply Module



2400mA Power Supply Module



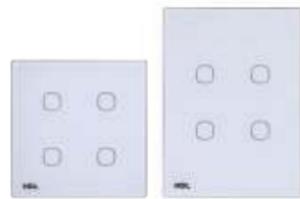
buspro
WIRELESS



Control Panel



DLP Series Panel(EU/US)



iTouch Series Panel(EU/US)

Power Interface



Wireless Power Interface EU



3CH Wireless Dimming Power Interface EU



3CH Wireless Switch Power Interface EU



3CH Wireless Dimming Power Interface EU

Sensor



Wireless PIR & Lux Sensor



Surface Mount Wireless Ultrasonic & PIR Sensor

Shading



Wireless Curtain Control Motor

Actuator



1CH Wireless Dimming Actuator



4CH Wireless Ballast Dimming Actuator



1CH Wireless Relay Actuator



2CH Wireless Relay Actuator

Gateway



Wireless Mesh Gateway



Buspro/ Wireless Gateway

IR Emitter



Wireless IR Emitter



1CH Wireless Curtain Actuator



4CH Wireless Dry Contact Module