

KEYVELLE | SMART CONTROL

HOSPITALITY · WHOLE-ROOM SMART CONTROL

Hotel Smart Room *Solution Manual*

Wireless, offline control of lighting, curtains, air conditioning and TV for guestrooms, suites and villas, by panel, voice or scene.

2.4G RF wireless · No internet required · No rewiring · Retrofit or new build · Bilingual custom panels

CONTENTS

Every key, *under one touch*

A guestroom control solution for KEYVELLE hotel projects: wireless scene panels, offline voice, lighting, curtains and room power, configured per room type and installed on the existing wiring.

How to read this manual. Specifications are taken from the product documentation of each component.

Configurations and quantities are confirmed per project.

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01 · WHY A SMART ROOM

One touch, *the whole room*

Guests judge a room in the first minute: the light, the curtains, the temperature. A smart room turns those first minutes, and every night after, into one simple gesture.

Guest experience

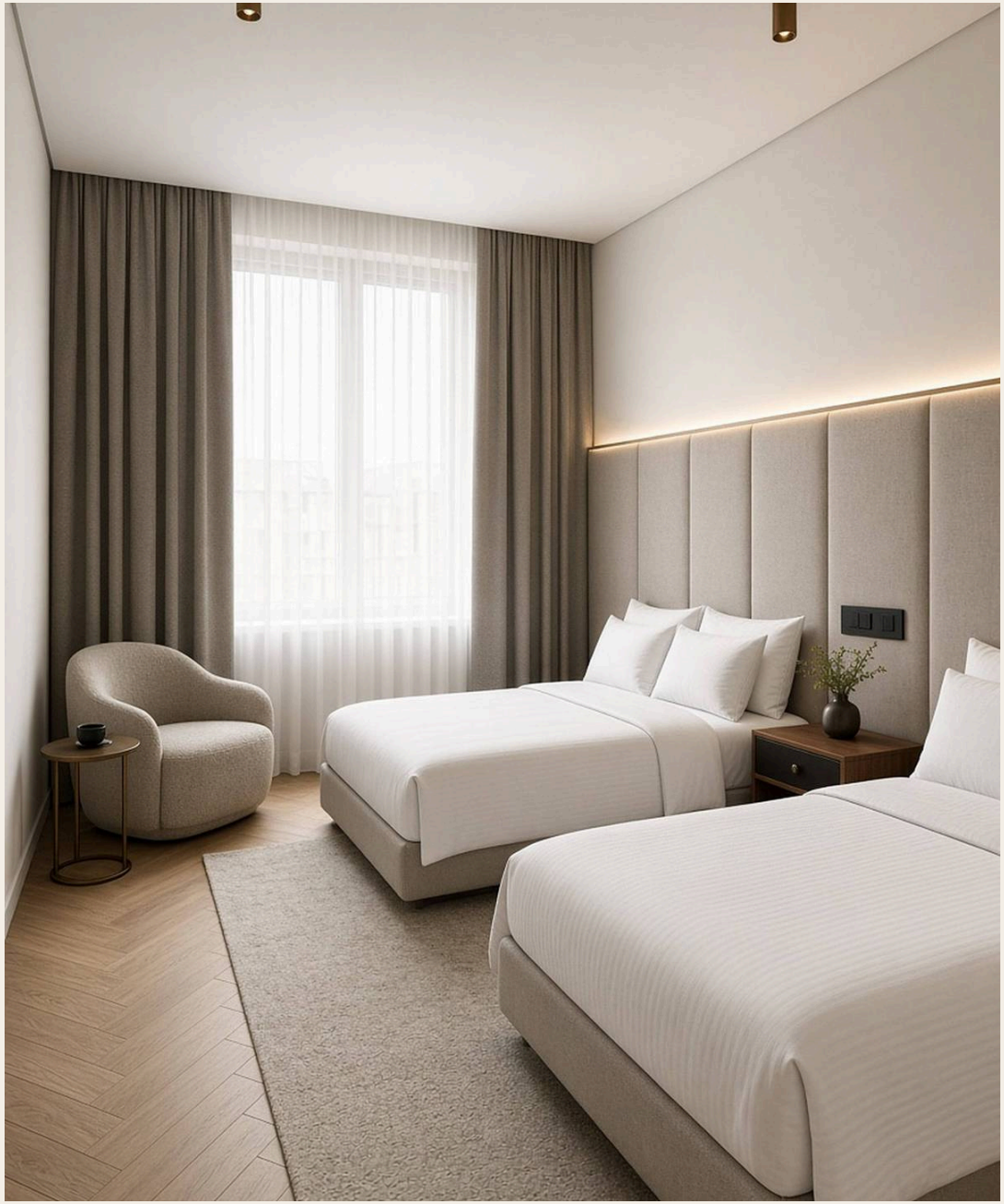
Scene keys at the bed and entrance, offline voice, and a welcome scene when the key card goes in: curtains open, lights on, TV and air conditioning ready.

Energy

Key-card power, an **ALL ON/OFF** key and smart circuit breakers make it simple to switch the room down the moment it is empty.

Operations

Wireless 2.4G RF control runs without internet or a cloud account, installs on the existing wiring, and upgrades occupied rooms with little disruption.



02 · SYSTEM OVERVIEW

Wireless by design, *offline by choice*

KEYVELLE Smart Control is built on SmartPie 2.4G RF wireless technology. Panels, voice controllers and receivers form their own private network, so lighting (on/off and dimming), curtains, air conditioning and TV respond without Wi-Fi, a cloud service or new control cabling.

Stable

No internet required

The system does not depend on the internet, reducing the risk of drop-outs or loss of signal.

1–2 h

Per room setup

No complex control lines to lay; wireless setup is completed within about 1–2 hours per room.

Light

Simple architecture

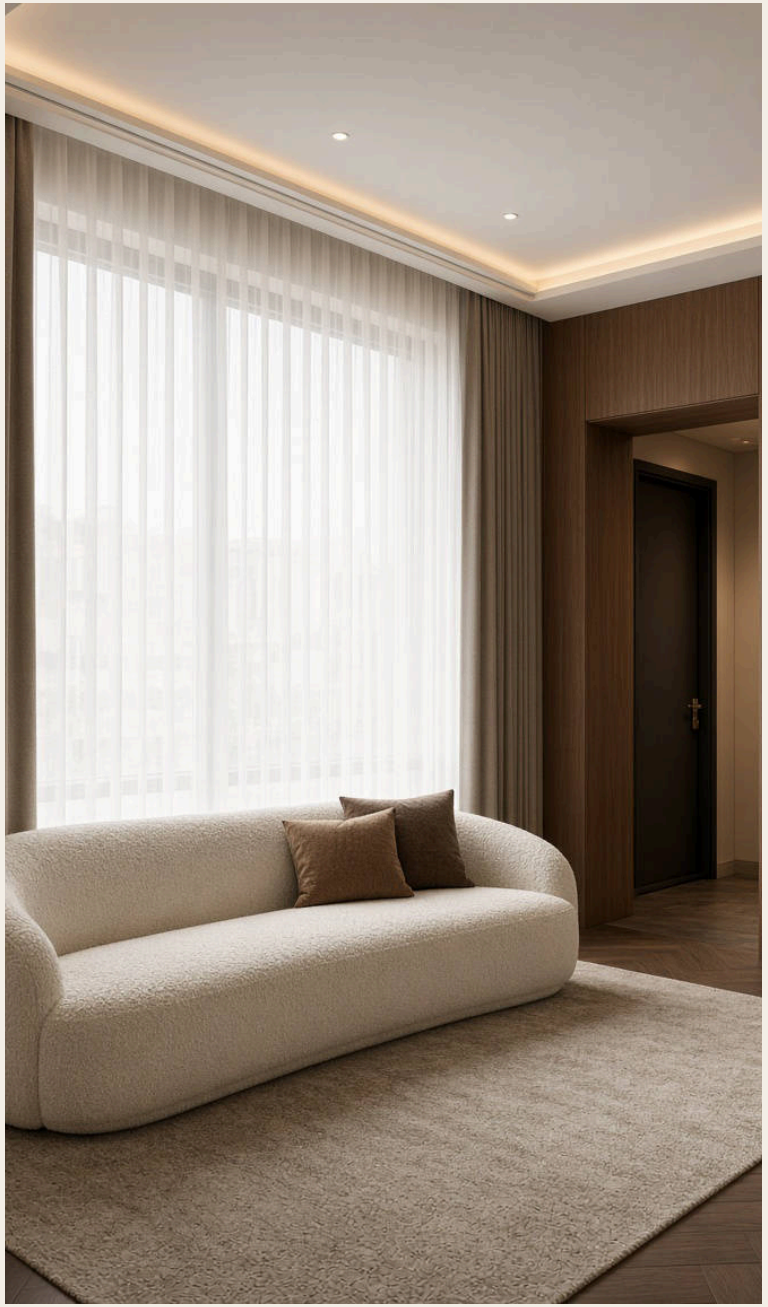
Fewer gateways and no pre-embedded control lines simplify design and reduce implementation complexity.

Ready

Upgradeable

Existing rooms become smart rooms by replacing the recommended components: panels, drivers, lamps and curtain motors.

Suitable for partial upgrades of finished rooms in operation, and for simplified deployment in new-build hotels, serviced apartments and premium residences. No subscription or cloud service is needed to keep the system running.



02 · SYSTEM ARCHITECTURE

From a key press *to the device, locally*

INTERACTION	CONTROL	EXECUTION	SPACE
Wireless scene & 3-in-1 panels	2.4G RF signal communication	Lighting drivers (constant current / constant voltage)	Guestrooms & suites
Offline voice controller	Private protocol, node networking	Spotlights, downlights, LED strips	Villas & residences
Rotary central control screen	Scene and central control logic	Curtain motors	Public areas
Key-card power switch	Device linkage	Smart circuit breakers & sockets	Lighting, curtains, TV and air conditioning
Sensors: presence, door, hand-sweep		AC and TV control	

Local control path

Key press or voice command → wireless instruction → instant device response. Transmitting devices (panels, voice) and receiving devices (drivers, curtain and power modules) form the network through 2.4G signals.

Wiring principle

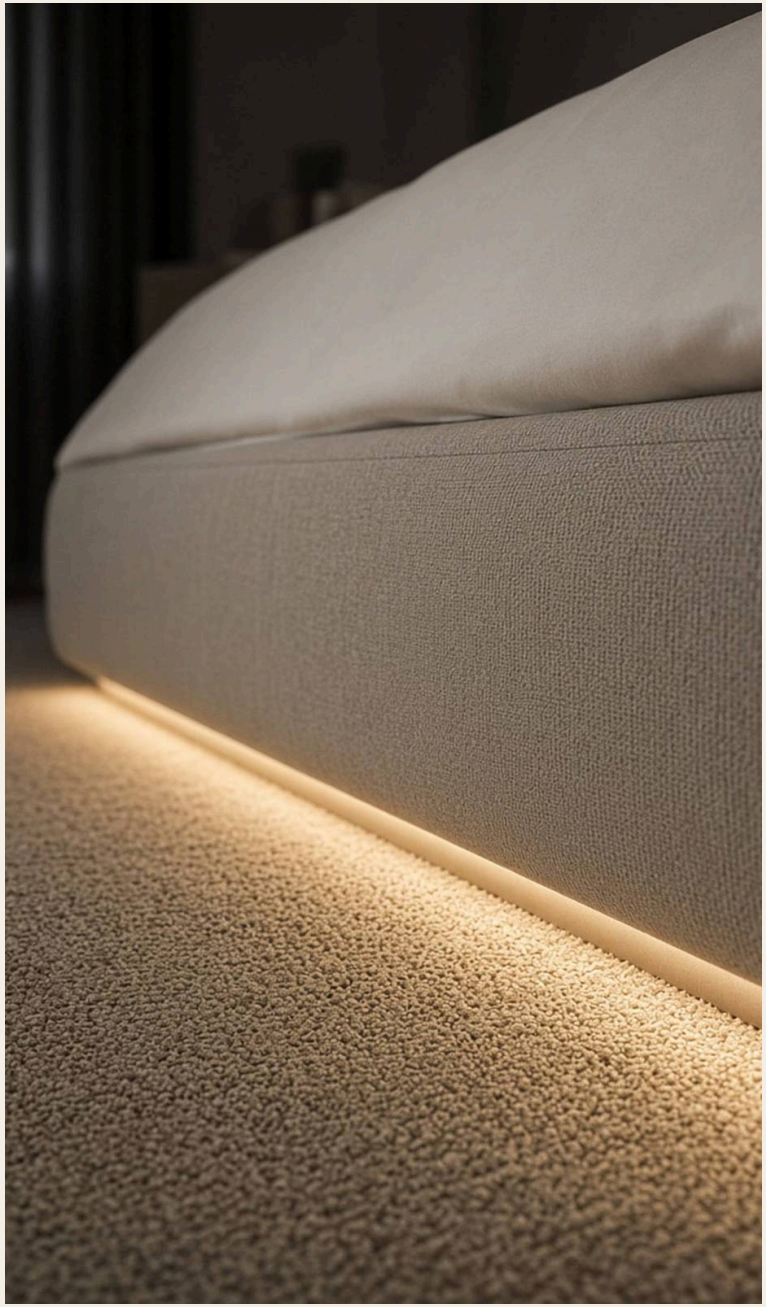
Spotlights, downlights, ambient strips, under-bed lighting, curtain motors, TV and air conditioning stay on conventional 220 V power wiring. Control travels wirelessly, so no dedicated control lines are pulled between the panels and the devices.

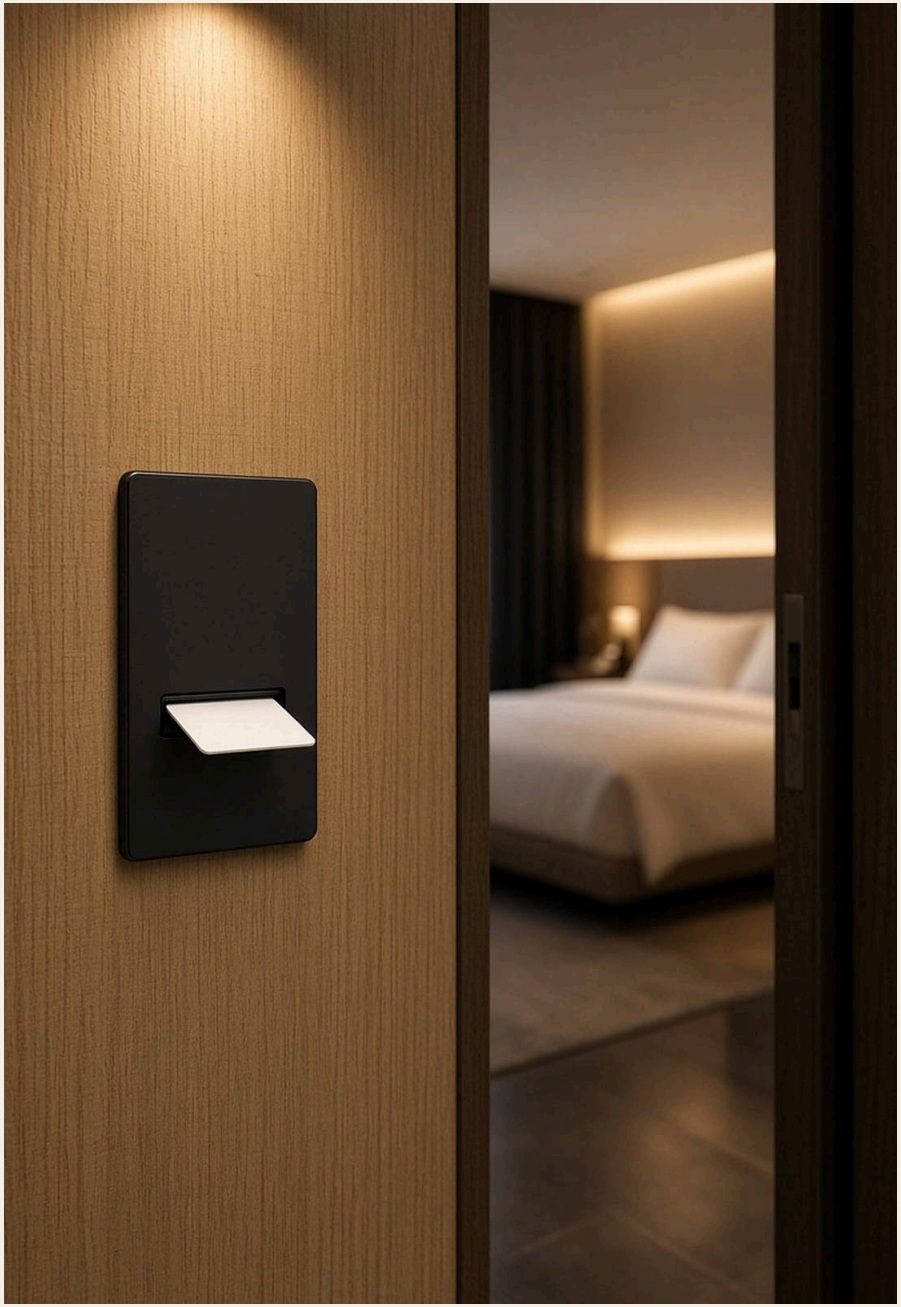
02 · WHY WIRELESS

Built for rooms *already in service*

Typical guest-room control systems rely on gateways and RS-485 or PLC wired control. KEYVELLE Smart Control replaces that control cabling with a 2.4G RF private network.

	KEYVELLE SMART CONTROL	TYPICAL WIRED GATEWAY SYSTEM
WIRING	Simplified architecture on existing power wiring	Complex wiring; control lines pre-embedded per terminal
FINISHED ROOMS	Connects at low cost without altering the original wiring	Retrofit requires an overhaul of existing electrical circuits
NEW BUILD	Reduces design complexity and wiring labour	Complex design with many unpredictable factors on site
NETWORK	No internet dependency; stable, no drop-outs	Depends on gateways and network stability
RESPONSE	Sensitive, real-time operation across the system	Gateway-to-device transmission introduces latency
MARKET FIT	Works for both retrofit and new-build projects	Retrofit faces significant barriers



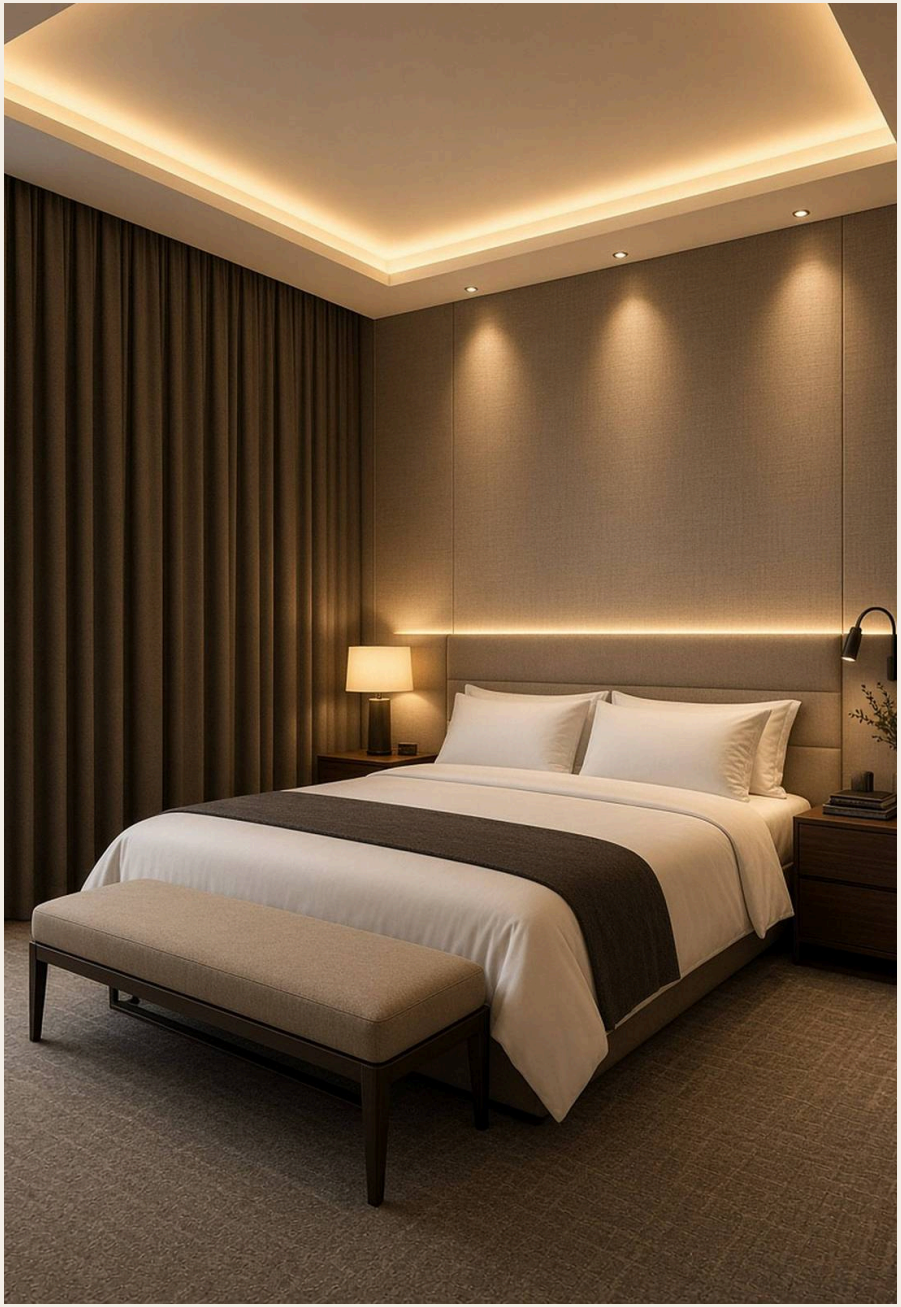


03 · SCENE · WELCOME

Insert the key, *the room wakes*

Inserting the key card into the entrance power switch triggers the check-in scene, so the guest walks into a room that is already prepared.

CURTAINS	Blackout and sheer curtains open
LIGHTING	Room lights switch on to the welcome scene
TV	Motorised TV lift raises and the TV switches on (where a TV lift cabinet is specified)
CLIMATE	Air conditioning starts
VOICE	Welcome message from the voice controller
POWER	Key-card power switch for room power on arrival and departure



03 · SCENE · LIGHT

Light that follows *the hour*

Spotlights, downlights and concealed LED coves are controlled by scene keys or by voice, with colour temperature and brightness set to the moment.

COLOUR TEMPERATURE	Warm · neutral · white by voice or panel
BRIGHTNESS	Low · medium · maximum; dimming by knob on the 3-in-1 panel
SCENES	Day · Night · Reading · Leisure
ZONES	Zone master switch and single-zone control; timer by voice
LIGHT SOURCES	10 W dimmable dual-colour-temperature spotlights, 3000–6000 K; 12 V cuttable LED strips



03 · SCENE · NIGHT

A softer way *through the night*

Wireless sensing joins the night-lighting system: a low under-bed glow guides the guest without waking the room, and the Night key sets the whole room at once.

NIGHT KEY	One key for the night scene at the bedside
UNDER-BED LIGHTING	Induction under-bed lighting system on wireless sensing
SENSORS	Human presence radar sensor, ceiling-mounted at 3–5 m; human-body sensor and hand-sweep switches
BATHROOM	Dedicated Bathroom key on the 4-key scene panel

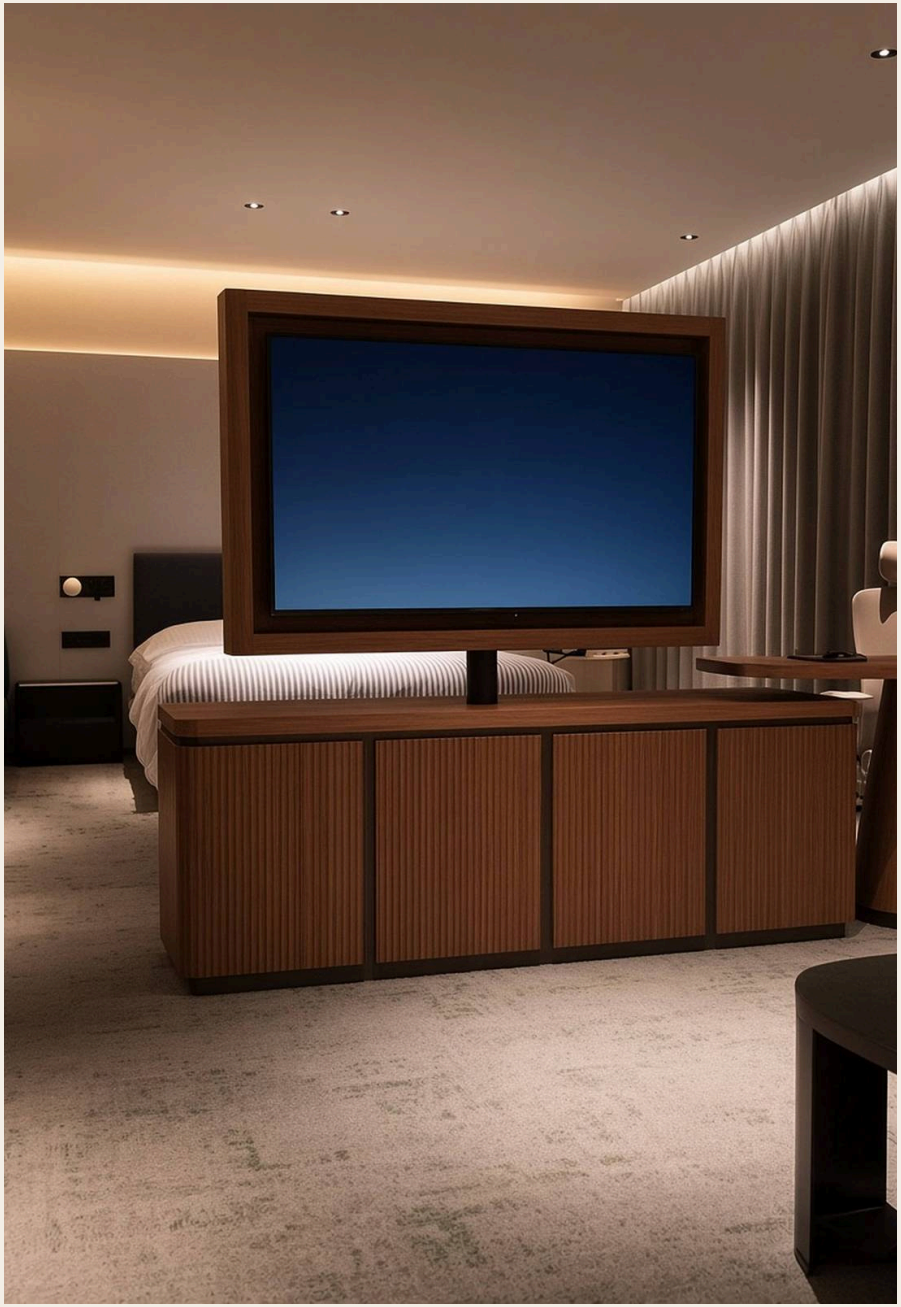


03 · SCENE · CURTAINS

Daylight, *on one key*

Dual-track motorised curtains open, close or pause the blackout and the sheer separately, from the panel or by voice, without delay.

CONTROL	Open · close · pause, curtain and sheer separately
PANEL	4-key curtain panel: Curtain and Sheer, each with open and close
VOICE	Curtain and sheer voice commands
TRACK	Silent double track, configured to actual window length



03 · SCENE · MEDIA, CLIMATE & CHECK-OUT

Everything off, *with one key*

TV and air conditioning join the same panels and voice commands, and the ALL ON/OFF key closes the room down when the guest leaves.

TV	On / off by panel or voice; motorised TV lift cabinet integration per project
AIR CONDITIONING	On / off, set temperature (e.g. 20 °C), heating / cooling mode by voice; temperature and fan speed +/- on the 3-in-1 panel
ALL OFF	ALL ON/OFF key on the scene panel; zone master switch by voice
POWER	Key-card power switch and smart circuit breakers

04 · PRODUCTS · BEDSIDE CONTROL

3-in-1 bedside panel *with sockets*



Curtains, TV & climate

Curtain open / close, TV on / off, temperature + / – and fan speed + / –, with icon labels in the project language.

Scenes & dimming

Day, Night, Reading and Leisure scene keys around a rotary brightness knob with display.

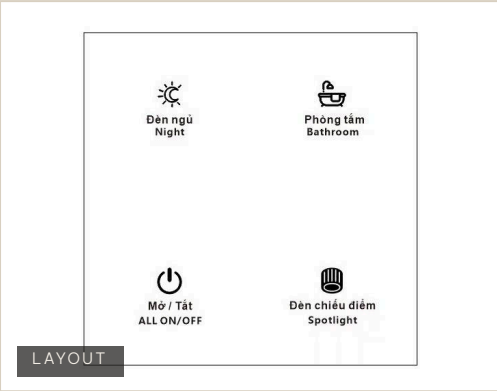
Power at the bed

Integrated power sockets with USB charging. Panel modules are available as wireless 2-in-1 or 3-in-1 combinations.

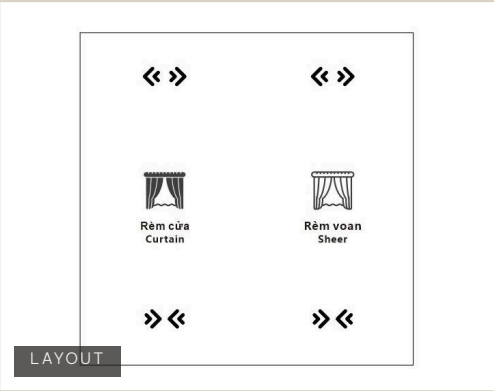
04 · PRODUCTS · SCENE PANELS

4-key scene panels, *in the guest's language*

Wall touch panels gather the controls guests use most at the bed and the entrance. Key language and function combinations are customised per project; the layouts below show a bilingual Vietnamese / English configuration.

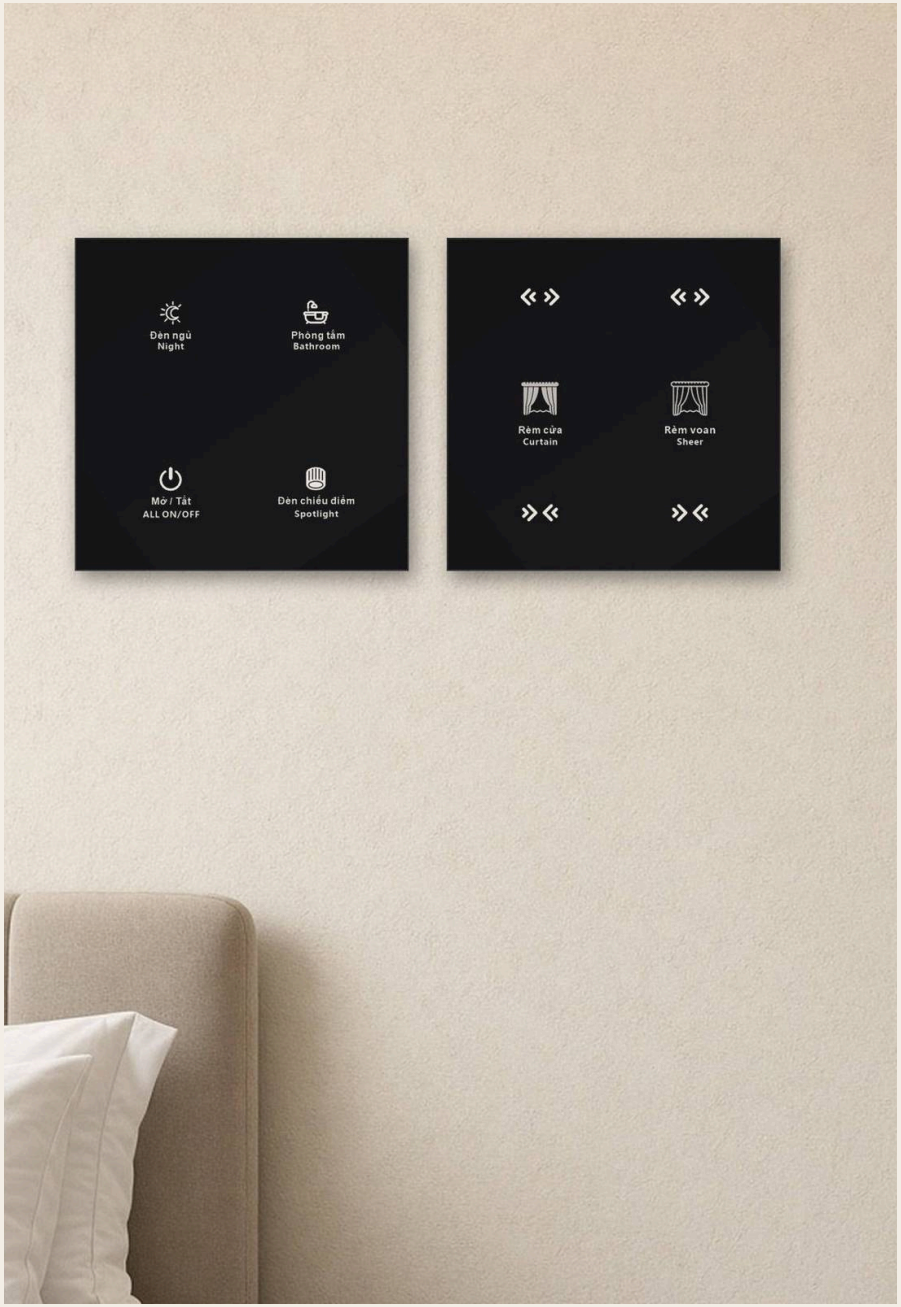


Scene panel · Night · Bathroom · ALL ON/OFF · Spotlight



Curtain panel · Curtain open / close · Sheer open / close

FUNCTIONS	Lighting and night mode · bathroom and accent lighting · curtain and sheer · all on / all off
LABELS	Key language and functions customised per project
ALSO AVAILABLE	Touch switches, door-control switch, human-body sensor switch, hand-sweep switch



04 · PRODUCTS · VOICE & CENTRAL CONTROL

Speak, turn or press *with no network*



OFFLINE VOICE CONTROLLER	No Wi-Fi required. Lights on / off, dimming, colour temperature, timer, zone master switch and single-zone control; also controls air conditioning, TV and curtains. Custom wake word per project
ROTARY CENTRAL CONTROL SCREEN	Wall-mounted or mobile; three control methods: voice, knob and button; no network required
COMBINED SCHEMES	Rotary screen + voice, or 3-in-1 panel + voice
WHERE IT FITS	Rooms with unstable network conditions, or where an independent control link is preferred



04 · PRODUCTS · LIGHTING & SENSING

Light sources, drivers *and sensors*



Spotlight

10 W dimmable, dual colour temperature 3000–6000 K. Magnetic-track spotlights also available.



LED strip

12 V, cuttable to length, for coves, headboards and under-bed lighting.



Presence sensor

Ceiling-mounted human presence radar sensing, 3–5 m.



Downlight

Full-spectrum healthy lighting range for ceilings and corridors.

DRIVERS	Intelligent constant-current and constant-voltage drivers; dimmable drivers paired with spotlights and LED strips
UNDER-BED SYSTEM	Intelligent induction under-bed lighting system for night guidance
POWER CONTROL	Intelligent power control device, smart circuit breakers and smart sockets



04 · PRODUCTS · CURTAINS

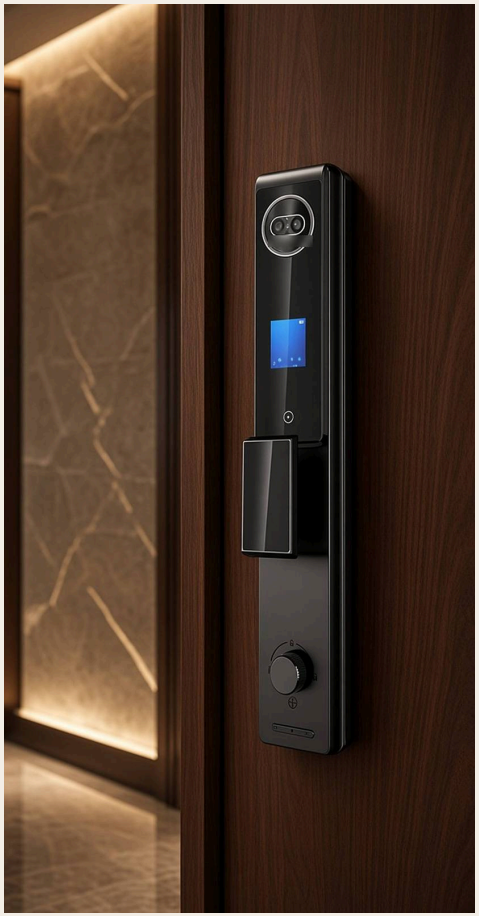
Motorised curtain *system*

Silent double-track curtains with wireless control, linked to panels and voice for open, close and scene control.

POWER SUPPLY	AC 90–230 V, 50/60 Hz
TORQUE	2.0 Nm
LINEAR SPEED	0.15 m/s
TRACK	Silent double track; double-opening curtain rail; configured to actual length
CONTROL	Panel, voice and scene linkage; blackout and sheer controlled separately

04 · PRODUCTS · ACCESS & POWER

Door, key card *and room power*



Smart door lock

UNLOCKING	Fingerprint, password, mechanical key, visual doorbell, face recognition, remote unlocking
DOORBELL	Built-in smart doorbell
DISPLAY	4.5-inch HD screen
CYLINDER	Class C lock cylinder
BODY	Full aluminium alloy



Key-card power switch

Room power on key-card insertion; triggers the welcome scene on arrival.

Smart circuit breaker

Wireless control of room circuits, included in the essential retrofit package.

Smart socket

Switchable socket for appliances on the same wireless network.



05 · BED-SYSTEM CONNECTION

Smart bedside table *& SUTA beds*

Furniture and room control in one piece: the smart bedside table brings the controls to the bed, and pairs naturally with SUTA by KEYVELLE bed systems.

BEDSIDE CONTROL	Central control at the bedside: smart knob and scene keys
POWER	Charging and power outlets
LIGHT	Ambient lighting under the cabinet
SIZE & MATERIALS	Per drawings, confirmed per project

Optional with SUTA beds. SUTA adjustable and smart beds keep their own controls. The room's Night scene, under-bed sensor lighting and bedside table are coordinated with the SUTA bed, headboard and bed base design for each project.

06 · ROOM CONFIGURATION PACKAGES

From one room *to the whole villa*

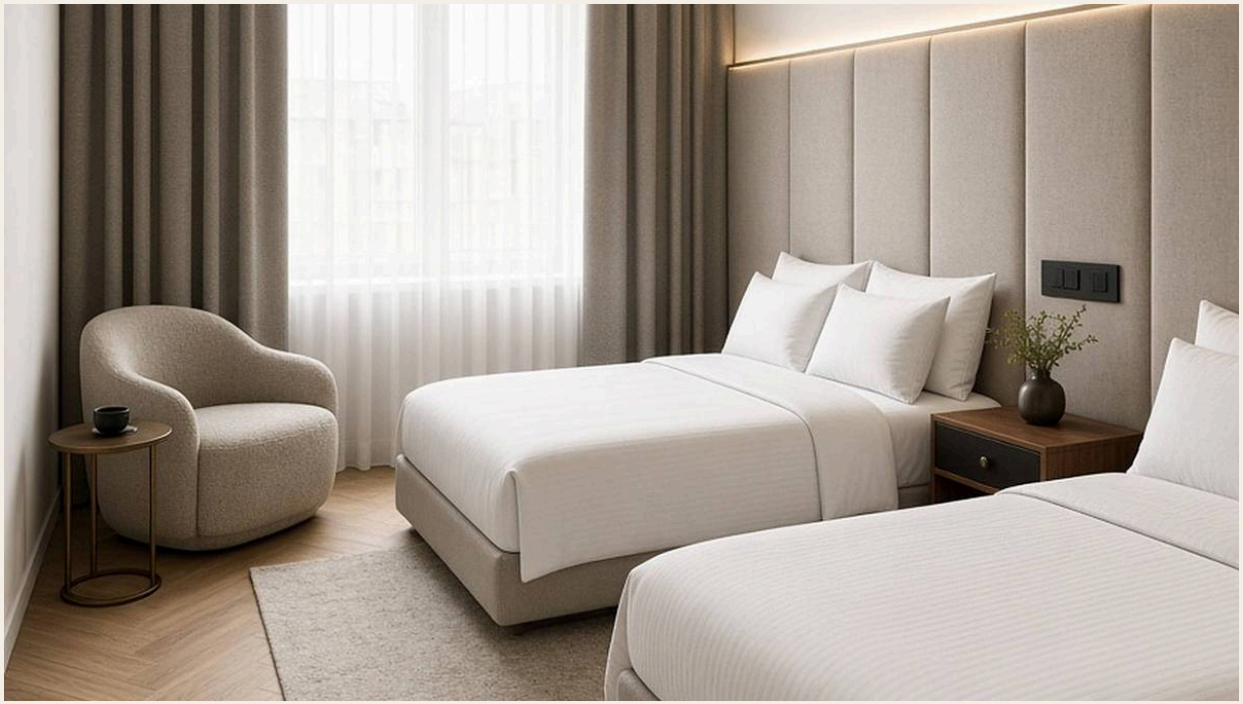
Start with the essential retrofit and grow to whole-house control. Each package is configured to the room layout and confirmed per project.

PACKAGE	TYPICAL CONFIGURATION	BEST FOR
Essential retrofit Standard / twin room · lighting unchanged	3-in-1 control panel ×1 · voice control set ×1 · key-card power switch ×1 · curtain control ×1 · smart circuit breaker ×2	Fast, low-disruption upgrade of rooms in operation
Complete room Standard / twin room · with lighting	3-in-1 control panel ×1 · voice control set ×1 · key-card power switch ×1 · curtain control ×2 · dimmable spotlight + driver ×8 · dimmable LED strip + driver ×1	Full room upgrade including lighting
Suite Bedroom + living area	Complete-room set per room, plus rotary central control screen, 4-key scene and curtain panels at entrance and bed, under-bed sensor lighting, presence sensors and smart door lock	Quantities per suite layout
Villa & residence Whole-house control	Rotary central control screens and voice controllers per zone, scene and curtain panels, curtain motors per window, lighting drivers, sensors, smart sockets and smart door locks	Quantities per floor plan

Optional for all packages: smart bedside table, motorised TV lift cabinet integration and SUTA by KEYVELLE bed systems.

07 · INSTALLATION & RETROFIT

Upgraded on the *original wiring*



1–2 h
Wireless control setup per room, no new wiring

3–5 h
Average full retrofit per room, including lighting and curtain hardware

METHOD	Retrofit directly on the existing circuits, without rewiring
ROOMS IN OPERATION	Room-by-room upgrades with minimal disruption to daily operation
NEW BUILD	Simplified design and wiring for new projects

01

Replace

Spotlights replaced with smart spotlights; drivers added to ambient lighting

02

Install

Smart panels at bed and entrance; key-card power switch replaced

03

Add

Under-bed sensor lighting; curtain tracks replaced and curtain motors added

04

Pair

All devices paired with the smart main controller and scenes set

08 · PROJECT SERVICE

See it working *before you specify*

The sample kit brings a working room to your desk: curtain motor, LED strips, spotlights, offline voice controller, control panels and key-card power switch, for presentation and solution testing.

01

Requirement confirmation

Room schedule, drawings, brand standard and scenes

02

Configuration selection

Package and device list per room type; panel labels and languages

03

Sample approval

Demonstration with the sample kit or a mock-up room

04

Installation & commissioning

On-site installation, pairing, scene setting and handover

WARRANTY & SERVICE	Warranty terms and after-sales service confirmed per project contract
LOCAL SUPPORT	KEYVELLE , Ho Chi Minh City: project coordination and delivery for Vietnam



KEYVELLE

CONTACT

Plan your *smart room*

Send your room types, drawings and the scenes you want. We reply with a room-by-room configuration and a sample or mock-up plan.

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Specifications, configurations and finishes are confirmed per project.

