



Idea Open
I C T S O L U T I O N

Welcome - check-in B&B Hotel

WELCOME



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Idea Open srl

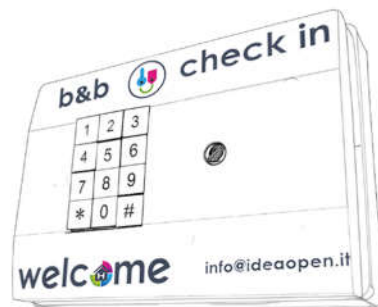
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Project: *WELCOME* check-in B&B - Hotel

welcome



101
mod. 0000-0000-00

Specifications:

The Welcome project involves the creation of an automatic check-in system for hotels, bed and breakfasts, multi-use hotels, rental apartments, tourist villages, and campsites:

- **Check-in arrival**
- **Room access control**
- **Automatic management of lights, air conditioning, water and devices in general**

These features will be integrated into the single Welcome system.

The hardware components of the system will be:

- **Operations center,**
- RJ45 / WiFi internet connection,
- 12V-24V power supply - 1A
- **Room management** , reservations, hotel home automation, on-site or cloud,
- integrated web-cam,
- **Numeric keypad,**
- **home automation control modules** (optional),
- various sensors for current, water, presence,
- smoke, gas and water leak alarm sensors,
- light control relays, various devices, solenoid valves, motors,

hotel

camera_1
ON!
!

2026-02-28_13:01:00_2026-03-21_11:01:00_00393351282015_paolo_280226_tribiolip@hotmail.it_3238353131__

camera_2
ON!
!

camera_3
ON!
!

camera_4
ON!
!

camera_5
ON!
!

Controllo Accessi (8 Camere)

Configura PIN fissi (operatore) e relè/tempi per ciascuna camera. I PIN temporanei e i relè inviati dal server sono mostrati in sola lettura e, se presenti, **sovrascrivono** i relè della camera.

Ricarica

Salva

Note: Formato relè/tempi: 1:5,3:3600 (relè 1 per 5s, relè 3 per 1h)

Cam	Abil.	Modalità PIN	PIN fissi (operatore)	PIN temporanei (server)	Relè/Tempi (operatore)	Relè/Tempi (server)	Ultimo update server
1	<input checked="" type="checkbox"/>	FIXE	<div style="display: flex; flex-wrap: wrap;"> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">11111</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">22222</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> </div> <small>6 slot (5 cifre)</small>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">28511</div>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">1:5,3:3600</div> <small>max 4 coppie, relè 1.16, sec 1.86400</small>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;"></div>	40627
2	<input checked="" type="checkbox"/>	FIXE	<div style="display: flex; flex-wrap: wrap;"> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> </div> <small>6 slot (5 cifre)</small>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;"></div>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">1:5,3:3600</div> <small>max 4 coppie, relè 1.16, sec 1.86400</small>	<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;"></div>	0
			<div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div> <div style="border: 1px solid #ccc; padding: 2px; margin: 2px;">12345</div>				

Welcome Control 05/03/2026 10:15:40 - Giovedì

Dash Relè Input Reg Schede Accessi Config S E

Controlli

luce 1 GPIO ESP32 ON	luce 2 GPIO ESP32 OFF	luce 3 GPIO ESP32 OFF	Relay 4 GPIO ESP32 OFF	Relay 5 MCP23017 ON	Relay 6 MCP23017 OFF	Relay 7 MCP23017 OFF
Relay 8 MCP23017 OFF	Relay 9 MCP23017 OFF	Relay 10 MCP23017 OFF	Relay 11 MCP23017 OFF	Relay 12 MCP23017 OFF	Relay 13 MCP23017 OFF	Relay 14 MCP23017 OFF
Relay 15 MCP23017 OFF	Relay 16 MCP23017 OFF	Relay 17 MCP23017 OFF	Relay 18 MCP23017 OFF	Relay 19 MCP23017 OFF	Relay 20 MCP23017 ON	

Schedulazione

Programma accensione/spengimento automatico dei relè in base a giorno e ora.

Stato: ● **DISATTIVO**

Ora corrente: 05/03/2026 10:17:48 - Giovedì

Abilita

Programmazioni Attive (Totale: 0)

Nessuna programmazione configurata

+ **Aggiungi Programmazione**

i Guida

Le programmazioni consentono di accendere/spengere i relè automaticamente in base a giorno e ora.

- Puoi creare fino a 32 programmazioni
- Ogni programmazione può essere attiva su uno o più giorni della settimana
- Precisione: 1 minuto
- Il sistema usa NTP per sincronizzare l'ora

The different application scenarios are one of the strong points of the Welcome system.

The standard scenarios expected depending on the configurations already mentioned are:

- **Location inside the building:**

For example, in a traditional hotel, i.e., a building with guest rooms, we'll have a **welcome** device next to each room door. This device can be installed **flush with the wall**, with just a slot for your phone or room entry card. Alternatively, the device could be **completely external**, mounted to the side of the room door.

- **Location outside the building:**

For example, in the case of a tourist village with chalets arranged in a park, or a scattered hotel with apartments and rooms distributed throughout a village, that is, there is no central building, but the rooms are all decentralized and independent.

Welcome device next to the door of each residential unit (and therefore outdoors). It can be installed **flush with the wall** and will only have a slot for your phone or entry card. Alternatively, the device could also be **completely external and installed next to the entrance door**.

- **External or internal mobile station:**

For example, in the case of campsite pitches, the Welcome device can be positioned in a mobile or semi-mobile configuration only when needed. The device will be housed in a removable, watertight container.

Let's exemplify some of the use cases that have been hypothesized.

To examine how the 360-degree system works, let's consider the case of a multi-building hotel and a family of travellers.

Typically, the traveler (Mr. Marco Rossi) chooses a room on a website, confirms the booking, and leaves his credit card details for confirmation and payment. After this, the room is booked in Marco Rossi's name from the date, to the date, for a certain amount and using Mr. Marco Rossi's credit card.

Mr. Rossi booked an apartment for 5 people that is located in a village and therefore does not have a 24-hour reception.

Currently, Rossi should arrange an arrival time with the apartment manager and then meet upon his arrival to complete check-in and other formalities.

With the Welcome system, however, after confirming the booking, Mr. Rossi will receive a QR code and a numeric code on his mobile phone, which is effectively the key to the apartment he booked. This QR code will remain active only for the duration of the booked stay, and Mr. Rossi can send it to the mobile phones of all his family members so that each member has their own key to the apartment.

Mr. Rossi arrives (even in the middle of the night) at the holiday resort, finds the booked apartment and proceeds to carry out the automatic check-in:

- 1) Mr. Rossi, following the instructions on the device, places his phone with the QR code received in the appropriate QR code reading space on the welcome device,
- 2) The welcome device reads the QR code directly from the display of Mr. Rossi's mobile phone
- 3) Welcome recognizes the code and verifies the booking details
- 4) At the same time, Welcome will turn on the lights, air conditioning and everything else provided in the accommodation unit.
- 5) Welcome closes the check-in process by notifying both the apartment manager and Mr. Rossi of your arrival for any further discussion.

nb

Notifications can be of different types, such as email, push notifications, and SMS.

NB

In the event of the presence of barriers, shared gates, garage doors, etc., the link sent to the customer via SMS and email, valid only during the validity period of the reservation made, will allow the customer to open everything required by themselves.

The system will operate more or less the same way in the case of a tourist village located within a park.

The difference is that there will be a reception desk at the park entrance for document checks, and the village manager will therefore be able to opt for manual check-in.

Manual check-in for arrivals expected during reception opening hours and automatic check-in for arrivals outside of reception opening hours or for the simultaneous arrival of many travellers, groups, etc., in order to avoid congestion at reception.

Access to the various chalets and pitches in the village will follow the same procedure described above. Guests will be able to use the QR code they receive to access their rooms and control their home automation system.

The room temperature and the various devices provided can be controlled remotely by the property manager and/or, with the manager's permission, the guest can manage their room remotely using their mobile phone.

Welcome was designed to be a completely open system, configurable at will and ready for future upgrades. The system's hardware and software can be upgraded as technology advances. New needs and features may become feasible and implementable in the near future, with others becoming available later. This will allow the Welcome product to be increasingly high-performance and tailored to the needs of different accommodation facilities.