Mushi Pad Pro

Manual

1 Preface

This manual is aimed at operating the Smart Conference , guest sign-in Pad, and smart device control operation instructions for Mushi Pad Pro. Provide rational guidance and suggestions on behaviors such as conference room reservation, check-in, and inspection in smart office. Provides convenient guidance on the use and operation of this product.

1.1 Product performance

1.1.1 Product Specifications

Product Name：Mushi Pad Pro

1.1.2 Equipment Working Environment Requirements

Working temperature	-10℃~45℃
Working humidity	10%~95% vapour-free
Working air pressure	80kPa~106kPa
Storing temperature	-40℃~70℃
Storing humidity	10%~95%
Storing air pressure	70kPa~106kPa

1.1.3 Processer

CPU	RK3399，Dual-core A72，Clock speed 1.8GHz，quad-core A53，Clock speed 1.4GHz
RAM	4GB
ROM	32GB

1.1.4 Screen Parameters

Size	10.36 inch
Resolution	2000×1200
Brightness	400cd/m^2
Ratio	15:9

1.1.5 Input Device

Touch device	Touch screen

1.1.6 Storage Device

Hard disk interface	SATA
Hard disk capacity	32GB

1.1.7 Camera Parameters

Pixel	Front 500 million pixels
Focusing method	Fixed
Distortion	<2%
Depth of field	Fixed focus，depth of field more than 0.3~2.5m
Angle of view	85°
Aperture	2.4
Resolution	Center1200，Sides 800
Pixel size	1600×1200

1.1.8 MIC Parameters

Mount	2×digital MIC
Sensitivity	-38dbV~42dbV
SNR	≥64dB
AOP	≥130dB

1.1.9 Speaker Parameters

Frequency response	Bandwidth：550~15KHz

1.1.10 Outside Interface

USB	1×USB Type-C
POE	1×RJ45,100M Ethernet

1.1.11 Wireless Interface

WIFI	2.4G/5G dual-frequency, IEEE 802.11 a/b/g/n/ac

Bluetooth	Bluetooth 4.2

1.1.12 Structure and Size

Installing methad	Wall mounted: Wall fit, No screws on the front Table setting: 45° angle for desktop, supplied with Kensington lock
Size（mm）	L×W×H 245.5×155.3×19.5
Net weight	Less than 500g。

2 Scenario Description

This product is mainly used in smart office scenarios such as conference room management, visitor management, and smart device management in the smart office process. This device can effectively improve the office efficiency of the above scenarios, reduce costs and increase efficiency, and improve the work efficiency of employees.

2.1 Meeting room management usage scenarios

2.1.1 Scenarios Using Background

At present, there are more than 100 million physical meeting rooms in the world, but there is no unified standard solution for meeting room reservation and management. Most traditional enterprises are still in the initial stage of manually booking meetings and manually managing conference room equipment and resources. With the diversification of intra-enterprise and inter-enterprise meeting forms, it is often necessary to face the problems of holding various types of meetings, non-fixed participants, and diverse meeting requirements. Administrative staff often need to prepare in advance for different types of meetings, including but not limited to meeting room search and reservation, notification of participants, preparation of meeting equipment, preparation of meeting materials, etc. After the meeting, the meeting room must be sorted out. This also leads to chaotic management, cumbersome meeting booking process, and unreasonable occupation of meeting room resources. The meeting room space resources are not effectively utilized. As one of the real estate costs, the conference room is the second largest expense for an enterprise after employee salaries. However, with more and more conferences and higher requirements for conference rooms, conference rooms are no longer simply a The meeting room space, with the development of science and technology and the advancement of technological means. The meeting room has gradually become a tool for improving meeting efficiency from a meeting room carrier. With the need to carry more usage scenarios, enterprises have also nurtured demands for portability of meeting reservations, higher meeting quality, meeting room comfort, and intelligence. The need for continuous optimization of space utilization efficiency is also imminent, which requires a complete set of smart conference room management systems to meet the demands of enterprises for conference room management.

2.1.2 Scenario Description

2.1.2.1 Check the meeting status

Mushi Pad Pro has the function of quickly checking the status of the conference room. The status lights on both sides of the conference room can easily identify the current conference room status. Participants do not have to open the door of the conference room or observe through the glass, and can understand the state of the conference room only by observing from a distance. It greatly improves the speed at which employees can find meeting rooms and improves the quality of meetings in the meeting room.

At the same time, it can also be quickly distinguished by the color of the border of the Pad, the conference room information, or the color of the function buttons at the bottom left. The schematic diagrams of the Pad display interface of "idle" and "in use" are shown in Figure 3.1-1 and Figure 3.1-2 below.

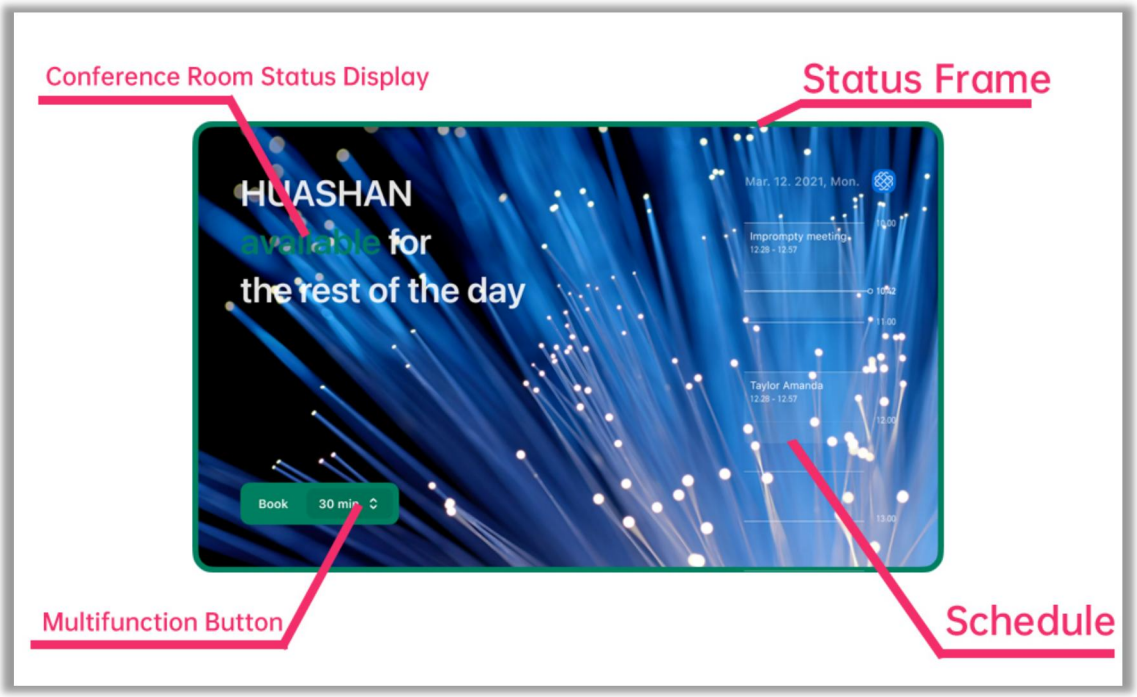

Fig. 2.1- 1 Status of conference room available

As shown in the figure, when the conference room is idle, the display screen of Mushi Pad Pro is shown in Figure 2.1-1. At this time, the status of the conference room is displayed as the word "Available" in green, and the function button is displayed as "Booking", and you can select 15 minutes, 30 minutes, 45 minutes and 60 minutes of meeting time. At this time, the conference room bound to the sign-in Pad is in an idle state and can be held at any time. Tap the function button to instantly schedule a 15-minute instant meeting.

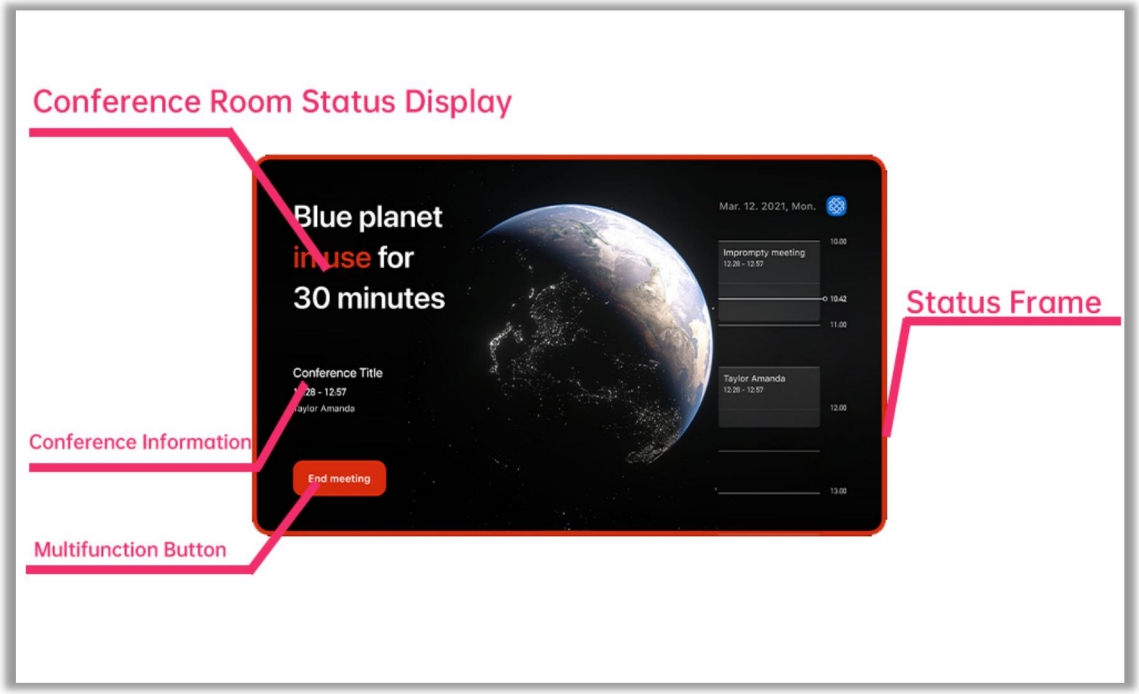

Fig. 2.1- 2 Status of conference room in use

When the conference room is in a meeting, the display screen of Mushi Pad Pro is shown in Figure 2.1-2. The status of the conference room is displayed as the word "in use" in red, and the function button is displayed as "End meeting". At this time, the conference room bound to the sign-in Pad is in the conference state, indicating that the conference room is occupied, and the information of the conference being opened is displayed above the function button. Meeting information includes meeting name, time, and participants. Below "Conference Room Status Display" is the time until the end of the meeting. You can intuitively know the end time of the meeting and make plans for the meeting. Touch the Multifunction button to end the meeting.

2.1.2.2 Book an Instant Meeting

Fig. 2.1- 3Book an Instant Meeting

Tap the multifunction button to start an instant meeting of the selected duration. Instant meetings are available in 15, 30, 45 and 60 minutes. Participants and meeting names cannot be added to an instant meeting. After the booking is successful, the conference room changes to the state of "in use". The schedule will be updated synchronously for each terminal device.

2.1.2.3 Conference Check in

In order to regulate the use of meeting rooms, you can choose to enable the "Meeting Room Sign-in" function in the background. After the function is turned on, you can sign in to the meeting within a few minutes before and after the meeting starts. The conference sign-in interface is shown in Figure 2.1-4. At this time, the "Conference Room Status Display" is red for sign-in, the LED is red, and the "function button" turns into a red sign-in button, and there is a countdown on the top. The meeting sign-in needs to be performed before the countdown ends, otherwise it will be recorded as a meeting sign-in. If it fails, the conference room resources are released immediately.

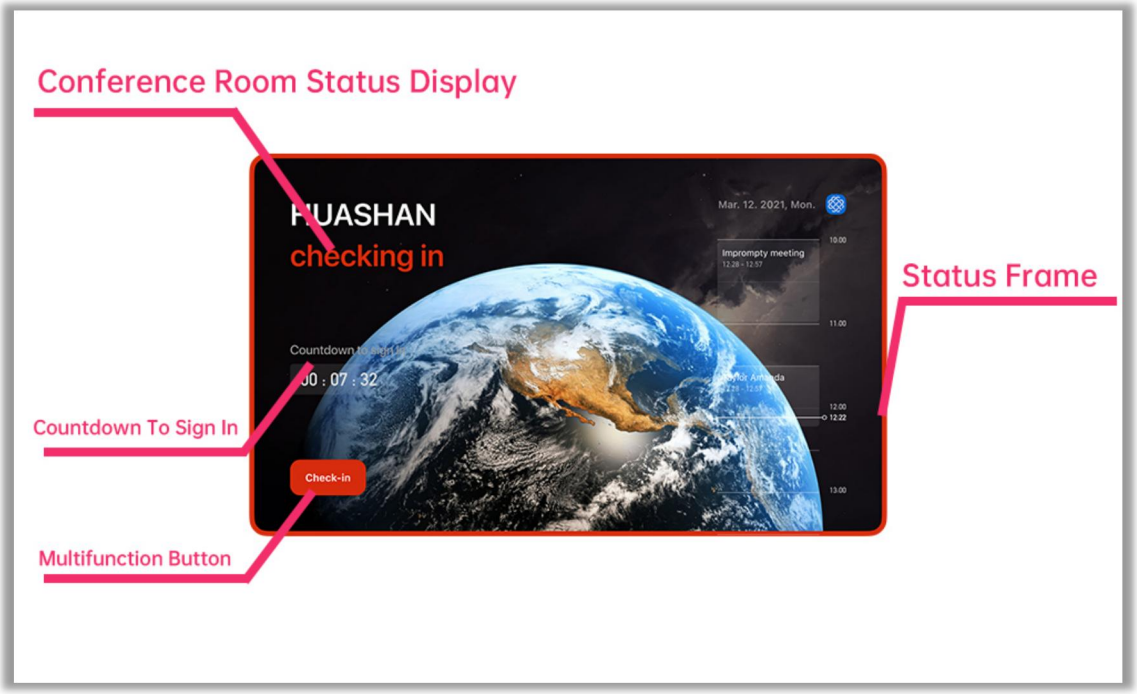

Fig. 2.1- 4 The interface of conference room check-in

2.1.2.4 End the conference in advance

If the end time of the meeting is earlier than the scheduled time, after the meeting ends, you can tap the "function button" of Mushi Pad Pro. At this time, the operation interface is as shown in Figure 2.1-5. After touching “End Meeting”, a pop-up window will pop up to confirm the operation. Click the "Confirm" button to end the meeting schedule. After the meeting is over, the meeting will switch from the "in use" state to the "available" state. Conference room resources are released.

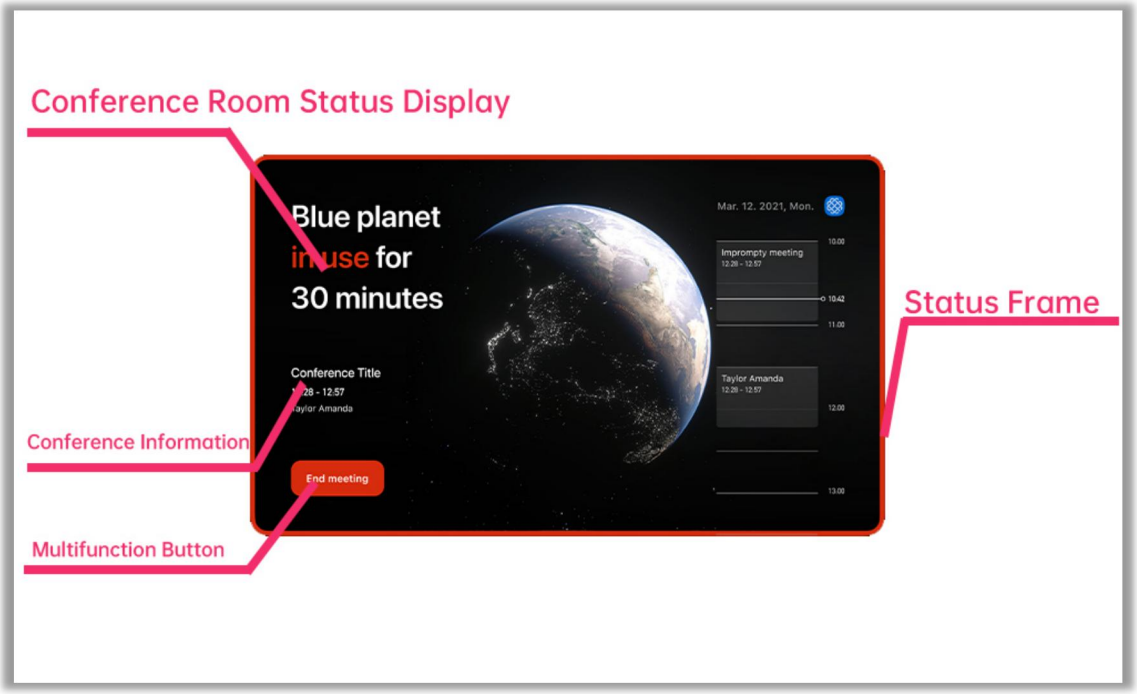

Fig. 2.1- 5 The interface of the "in use"

2.1.2.5 Check the Information of Conference

The conference room sign-in pad can display the current conference room status, the available time of the current conference room, and the conference booking information in today (or the last 3 days or a week).

At the same time, the main interface will also display information such as meeting room name, meeting room booking status, meeting room opening time, meeting room schedule timeline and company logo. The main interface can intuitively display the main information required for most meeting room scenarios for easy checking and operation.

The main interface of the conference sign-in Pad is shown in Figure 2.1-6.

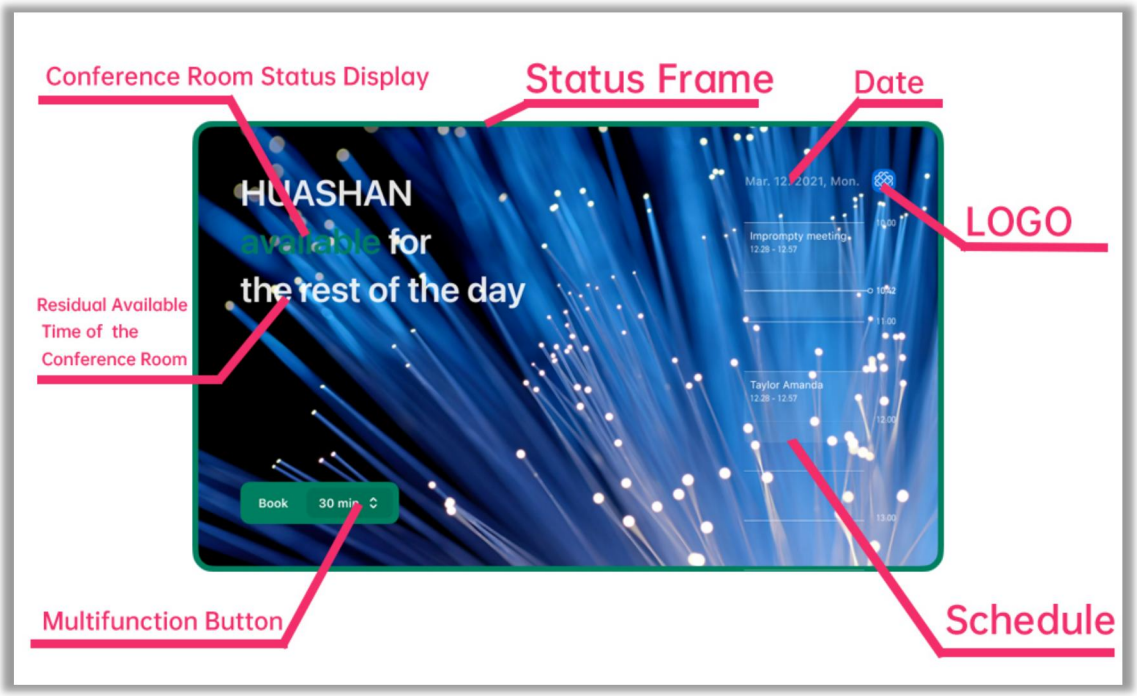

Fig. 2.1- 6 The main interface of the Conference Room Check-in Pad

2.2 Visitor Check-in Pad Usage Scenarios

2.2.1 Scenarios Using Background

As more and more enterprises settle in modern smart buildings, some large and medium-sized enterprises also have independent buildings and parks, due to the gradual expansion of the business scope, the number of visitors is also increasing. Traditional visitor management methods often rely on manual inquiry and registration management or use a single access control system for management. For the increasingly large number of visitors, either the management efficiency has been low, or the management method is single, there are serious security management hidden dangers. The identity of people entering and leaving is complex and diverse, and traditional management methods cannot timely and effectively check the identity of each person entering and leaving. It is impossible to accurately record the detailed entry and exit records of personnel. In the event of a security problem, it is impossible to obtain valid visiting data for reference in a timely manner. Traditional registration methods cannot check the authenticity of visitor identity information and fill in information, and manual filling exists. The handwriting is scribbled, difficult to identify, and cannot be stored for a long time, which leads to the increase of labor costs and cannot truly guarantee the safety of buildings and enterprises, nor can it meet the increasing safety requirements of enterprises.

2.2.2 Scenario Description

After the Mushi Pad Pro runs the Mushi visitor management system, it can realize the function of the visitor check-in board, which can register and manage the company visitor check-in, visitor check-out and temporary visitor visit, and realize the management of corporate visitor information in one machine.

The main interface of the guest sign-in board contains five buttons and three display areas. The five buttons are the visitor sign-in button, the visitor sign-out button, the temporary visitor button, the setting button and the voice switch button. The three display pleasures are the display of company information and Logo, date display and version number.

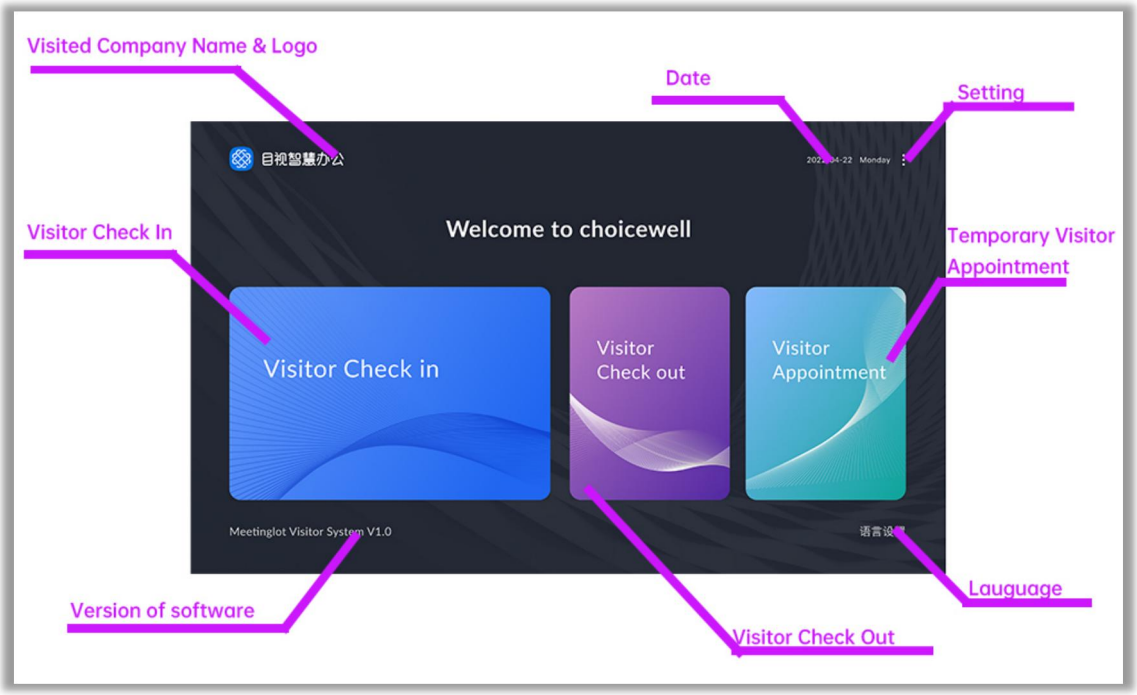

Fig. 2.2- 1 Visitor check in board main interface

2.2.2.1 Invited Visitors to Check-in

When an invited visitor comes to visit, click the Sign-In button to enter the visitor check in page, and the visitor can check in by means of QR code, sign-in code or face recognition.

2.2.2.2 Print visitor stickers

After the visitor has checked the identity information and successfully checked in. Visitors can choose to print a visitor sticker and stick their own visitor sticker on their chest. This function is to allow employees to quickly identify the visitor and

provide a better visit process for the visitor.

2.2.2.3 Visitor Check-out

After the visit, the visitor clicks the visitor checkout button to enter the visitor checkout page. The visitor can check in by means of QR code, check-out code or face recognition.

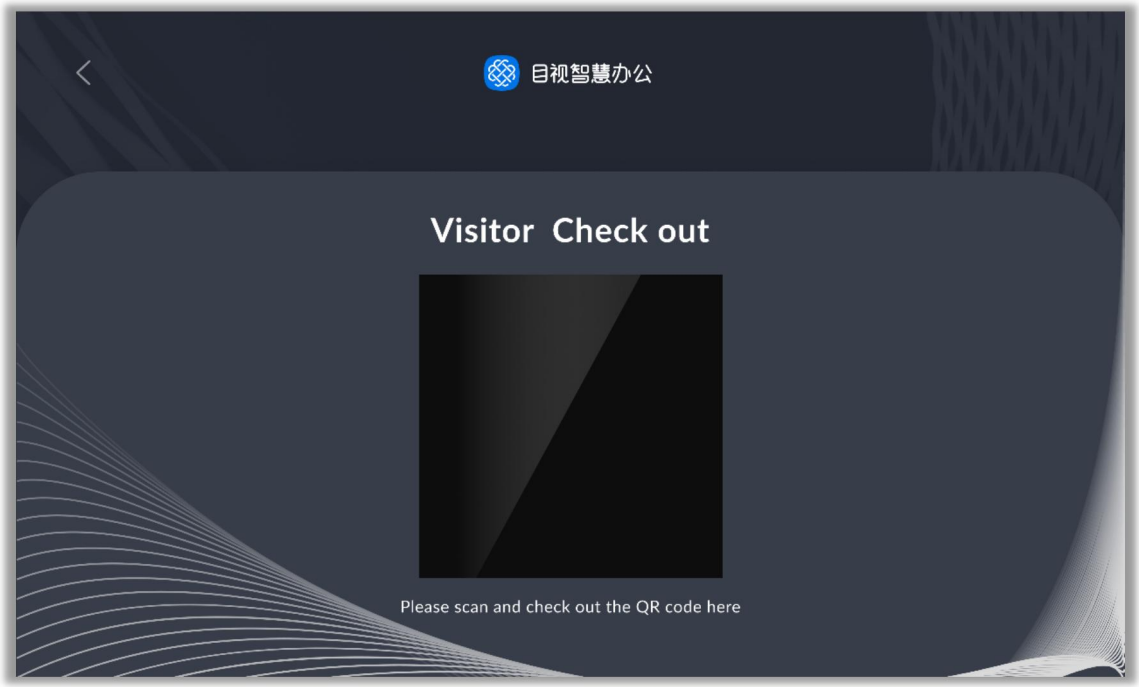

Fig. 2.2- 2 Visitor checkout interface (QR code)

2.2.2.4 Temporary Visitor

When a temporary visitor visits, the temporary visitor can click the temporary visitor button on the Mushi Pad Pro, and the temporary visitor can scan the QR code to register and apply for information or fill in the visitor information directly in the Mushi Pad Pro. The information to be filled in includes "visitor's name", "affiliation company", " reasons of visit", "receptionist", "visit time" and "visitor's mobile phone number" and other relevant information.

Fig. 2.2- 3 Temporary visitors fill in the information interface

2.3 Smart Device Control System Usage Scenarios

2.3.1 Scenarios Using Background

At present, the office environment of most workplaces is still in the traditional switch control. The overall structure of most conference rooms is relatively simple, and many conference room equipment is still in the state of traditional whiteboard projectors, and the actual use experience and reliability are at risk. A lot of time is often wasted due to the preparing of equipment for temporary meetings, which greatly reduces the overall efficiency of the meeting, which directly affects the staff's physical feeling and meeting efficiency. Projectors, TVs and other high-energy-consuming equipment have been running for a long time without dormancy, so that energy consumption expenditures have been maintained at a high gradient for a long time, becoming a high-consumption part of enterprise cost expenditures.

2.3.2 Scenario Description

After the Mushi Pad Pro runs the intelligent device control system, it can realize the control function of the intelligent device, and perform central control for the conference rooms, corridors, exhibition halls and other scenes of the enterprise that require intelligent device control.

Through the smart control of the equipment, functions such as equipment monitoring, turning off when people leave, mode switching, air conditioning constant

temperature, and equipment control can be realized, which can greatly improve the efficiency of conference equipment control.

The main interface of the intelligent device control system includes two modules, three buttons and five display areas. The two modules include the conference mode switching module and the smart devices control module. The three buttons are the main switch, exit the program and the error reporting service. The five display areas include device online status, date, indoor temperature, basic information and conference room notice.

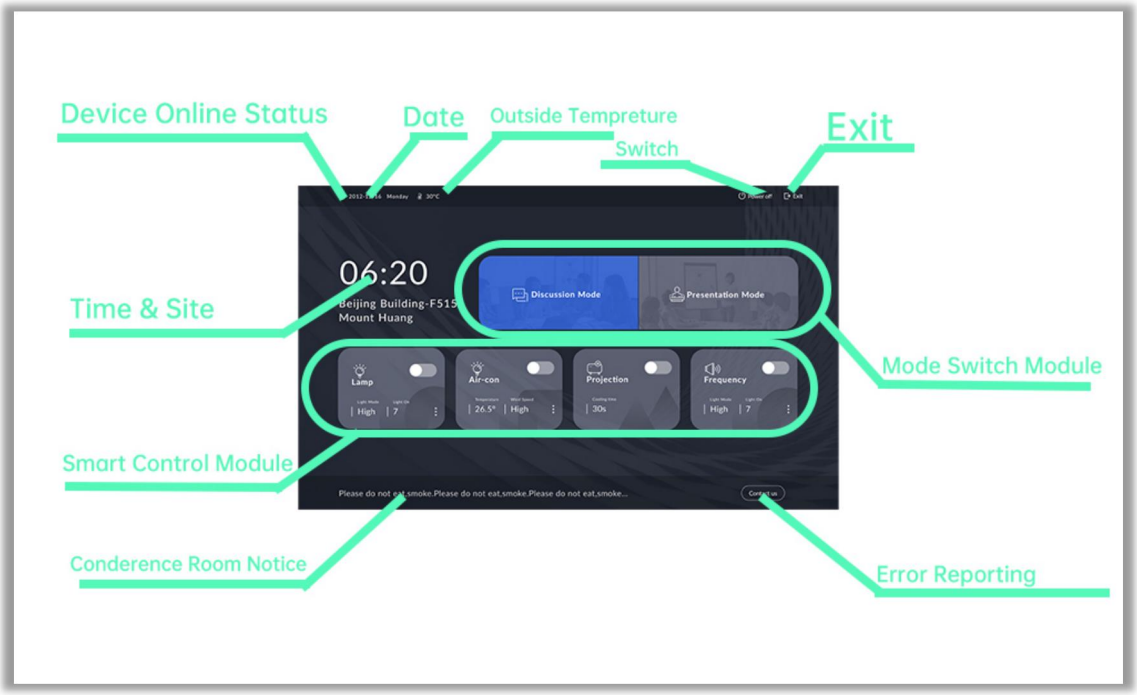

Fig. 2.3- 1Main interface of intelligent device control system

2.3.2.1 Switch the Conference Room Mode

Both conference modes can be customized in the background, and the status of different devices can be preset in this conference mode, including but not limited to whether the light is turned on, light illuminance, light color temperature, light color, lighting mode, air conditioning mode, projector on/off , TV on/off, curtain on/off, speaker on/off, microphone on/off, fog glass on/off various equipment modes.

By clicking on the unlit conference mode, you can turn on the mode, adjust all the devices with one click, and reduce the time for meeting room layout.

2.3.2.2 Smart Device Control

This module can operate all devices that have been bound in the background,, and can manually turn on or off single and group rental devices through the device switch button. You can also view the device running status through the device status

or device details, and make further adjustments. Including secondary operations such as air conditioning temperature and air conditioning mode.

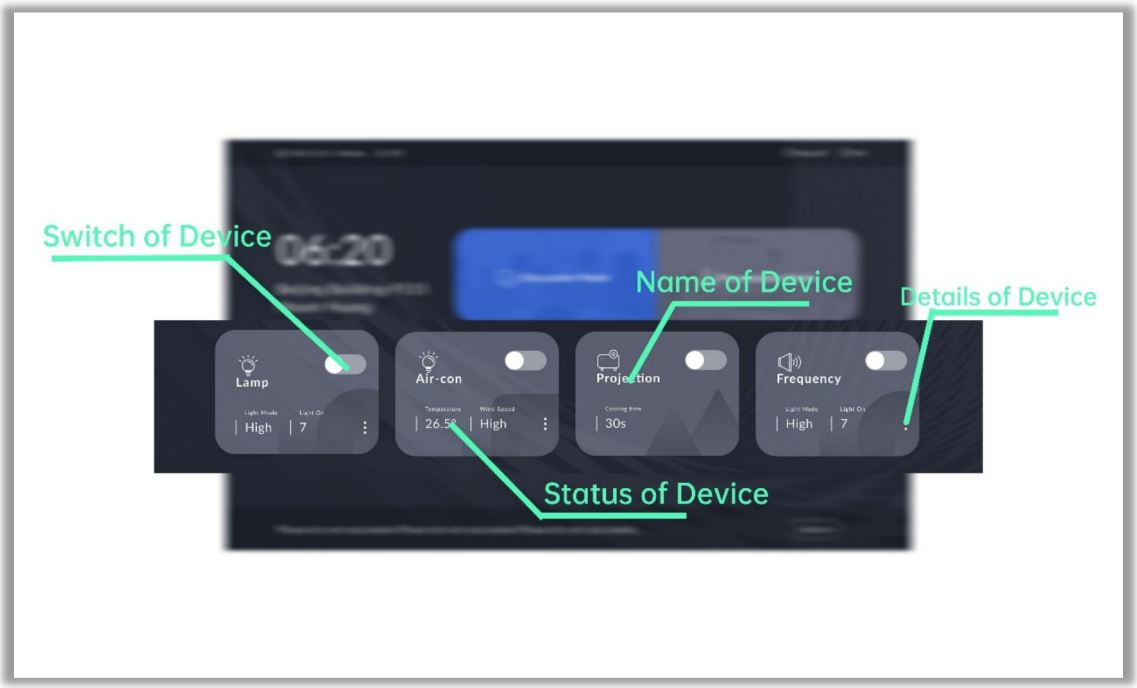

Fig. 2.3- 2 Detailed interface of intelligent control module