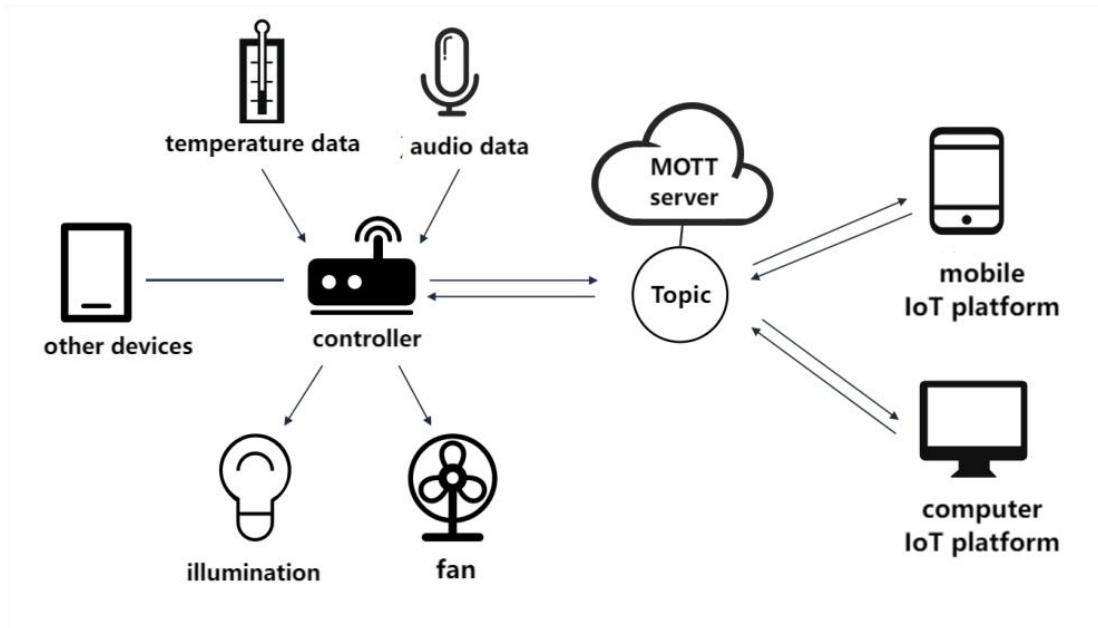


Instruction Manual of IoT Platform

1. Introduction to the IoT platform



ZMROBO IoT platform (<https://iot.zmrobo.com>) is a technology platform based on MQTT protocol, designed to provide cloud support for IoT applications. The platform provides functions such as data reception, data transmission, data forwarding, data analysis, and data display, enabling developers to quickly build IoT-related applications. The platform function is easy to use, which can make the development process more fast and more convenient.



ZMROBO IoT platform can create a maximum of 10 device topics and store 10,000 pieces of information. Message communication can be achieved between the server and the device through these device Topics, and different types of information can be stored, including string information, numeric information, and command information. In addition, the platform also provides the data visualization function and the information data export function.

2. Register and Login

Open a browser access to <https://iot.zmrobo.com>, click "Login" to switch to the login page.



Enter your account and password. You need to register for the first time, or you can also use the verification code to log in.

Login

Quick login / Register

Email

Sign In

[Forgot password?](#)

By default, it will return to the home page and click "Get start" to switch to the workbench page.

Zmrobo IoT Home Workbench Doc 中/EN

IoT_id:

IoT_pwd:

Server_ip:



Allocated: 0/10000

My devices 0/10

Add device

3. Workbench Operation

3.1 IoT user information

The workbench automatically generates `iot_id` and `iot_pwd` (Used to configure IoT hardware parameters during application), which can be regenerated but cannot be modified by itself. Click the  icon button to hide the display, and click the  icon to copy the parameters.

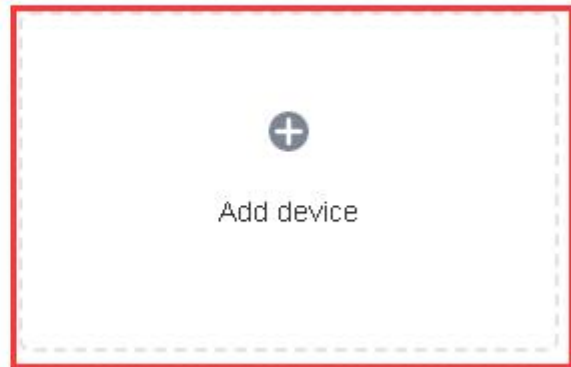


3.2 Add and delete devices

Click "Add Device" to create new devices, and each device has a corresponding Topic (Used to configure IoT hardware parameters during application).

My devices **1/10**


New device1 [✎](#)
Topic: 123456xxxx... [📄](#)
 [Send](#)
[Details](#) 9/1000 [⚙️](#) [🗑️](#)



When you have multiple Topic devices, you can modify the device name to facilitate differentiation.

New device1 [✎](#)
Topic: 123456xxxx... [📄](#)
 [Send](#)
[Details](#) 9/1000 [⚙️](#) [🗑️](#)

New device2 [✎](#)
Topic: 123456xxxx... [📄](#)
 [Send](#)
[Details](#) 0/1000 [⚙️](#) [🗑️](#)

Click on the  icon to delete the device.

New device1 [✎](#)
Topic: 123456xxxx... [📄](#)
 [Send](#)
[Details](#) 9/1000 [⚙️](#) [🗑️](#)

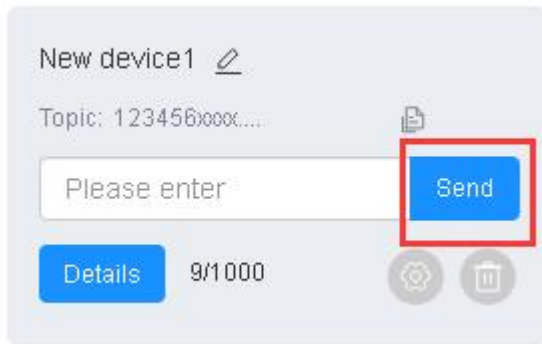
Delete?
[No](#) [Yes](#)

New device2 [✎](#)
Topic: 123456xxxx... [📄](#)
 [Send](#)
[Details](#) 0/1000 [⚙️](#) [🗑️](#)

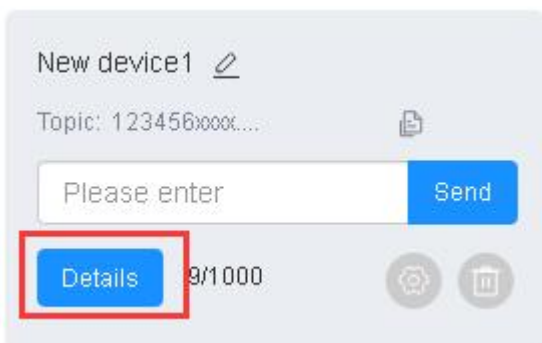
3.3 Send and view information

Enter the information in the information input field of the device and click "Send" to send the information to the server.

A message with the prefix “>>”, is a pure directive message and is not recorded, such as “>> start”.



Click "Details" to view all the information received/sent by the device. If messages exceed 1,000, the system will auto-overwrite the original messages with new messages.



This page enables the view and processing of the received/sent messages.

< Return New device1

Send msg (Messages prefixed with ">>" are pure instruction messages and will not be recorded. For example, ">>start")

Please enter

All msg

1

2 Time

3

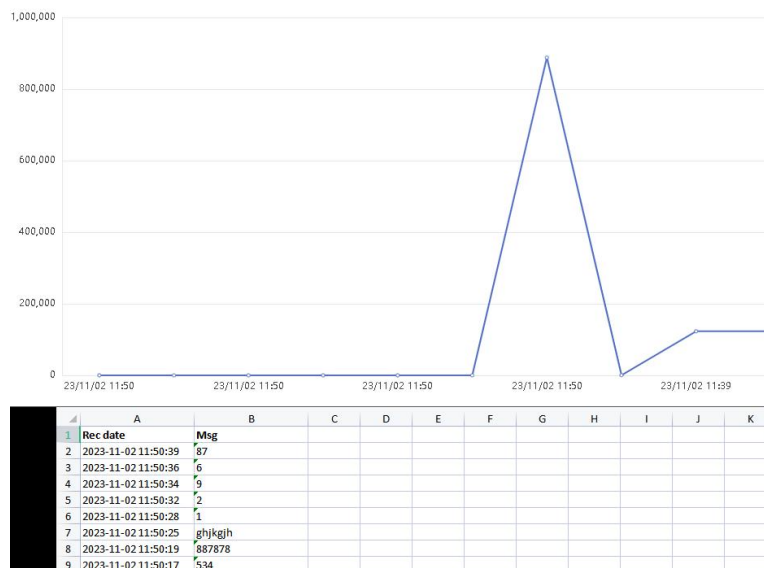
Rec date ▲	Msg
2023-11-02 11:50:39	87
2023-11-02 11:50:36	6
2023-11-02 11:50:34	9
2023-11-02 11:50:32	2
2023-11-02 11:50:28	1
2023-11-02 11:50:25	ghjkgjh
2023-11-02 11:50:19	887878

Last 7days Start date Start time End date End time
Last mth
Last 3mth

2023 - 10 2023 - 11

Clear Yes

- 1. Display form:** change the display form of information, you can choose "List" or "Chart";
- 2. Date filtering:** Set the "Start" and "End" to view information within a period.
- 3. Clear all msg:** empty all the information in the equipment;
- 4. Export to excel:** export all information in xlsx form, including the receiving time and receiving content of each information.



4. Hardware use based on the IoT platform



The IoT module has the function of connecting Wi-Fi and the IoT platform for information interaction. Implement remote control and monitoring of different devices, such as controlling lighting, startup and execution of works. At the same time, the module can also send the status of the device, such as temperature, humidity, air pressure, sound and other data information back to the IoT platform for analysis and decision-making.

4.1 Operational principle

With the MQTT protocol as the communication standard, it connects to the IoT platform and realizes the information interaction between the device and the platform. By publishing and subscribing to Topic, the module can send device status information to the platform or receive instructions issued by the platform, realizing the function of the IoT.

The IoT module does not support Wi-Fi in the 5GHz frequency band. If you fail to connect to Wi-Fi many times, please check and consider generating 2.4G band Wi-Fi through a mobile phone hotspot or a wireless network card.

4.2 Usage method

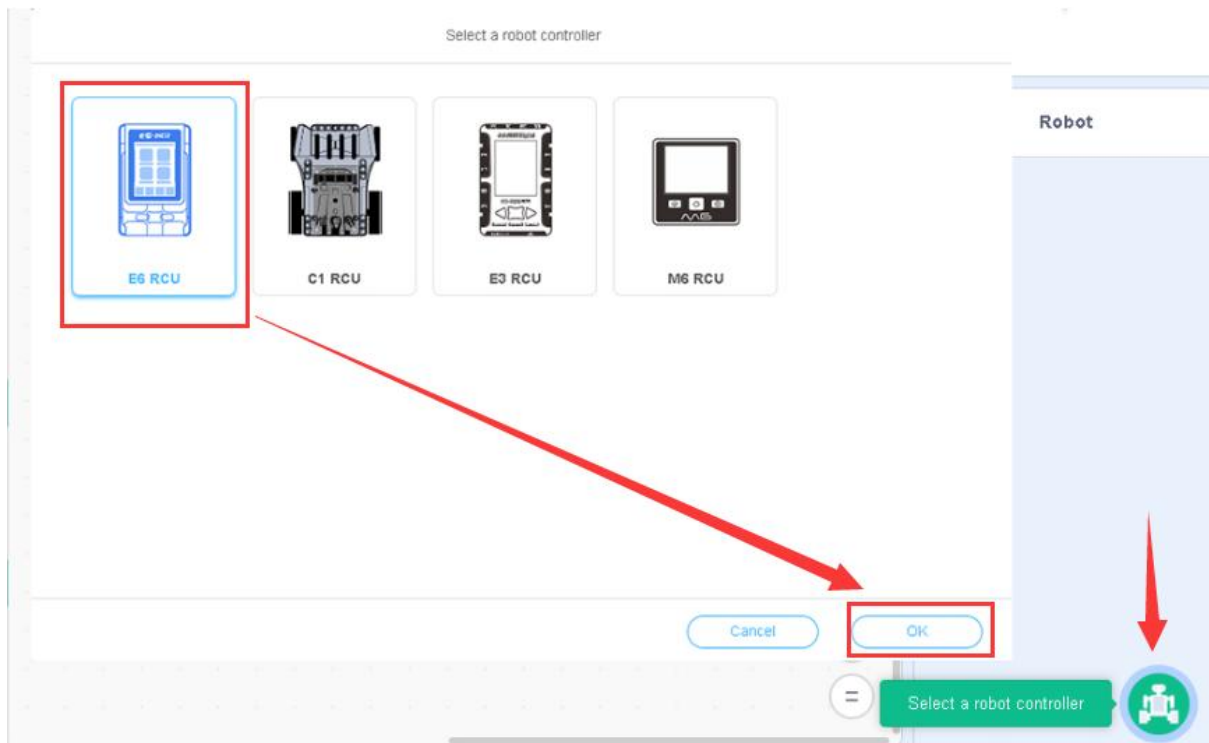
4.2.1 Hardware connection

Connect the IoT module to the controller P1 port.

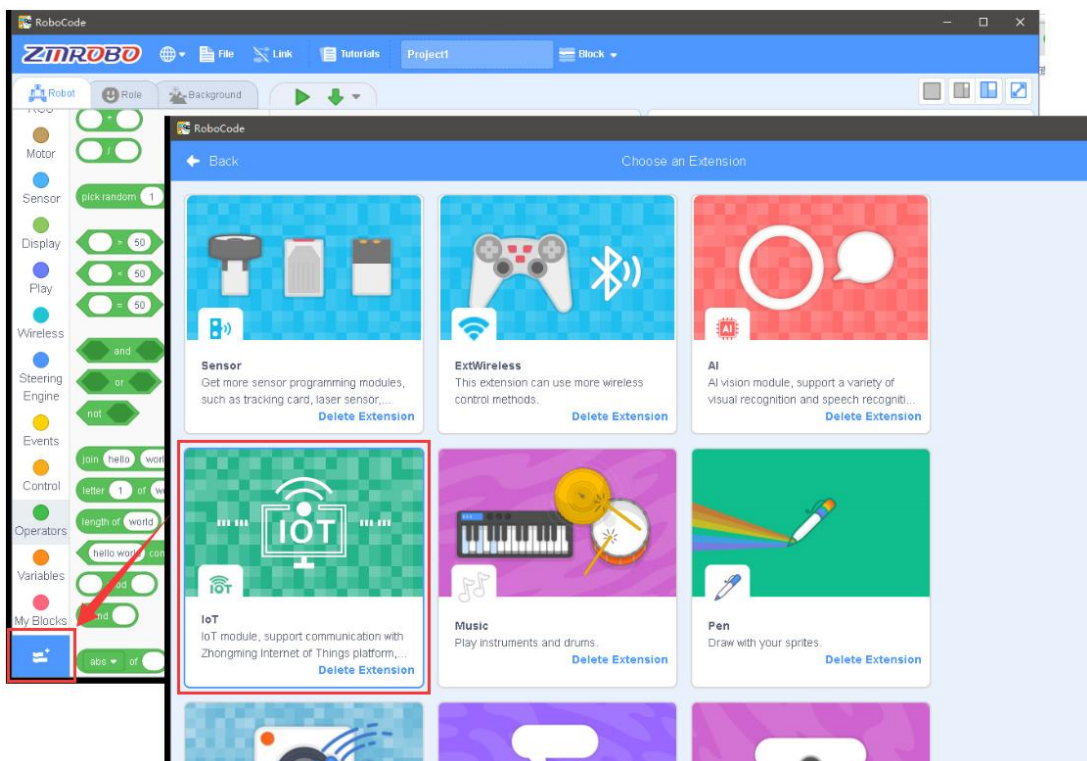


4.2.2 Programming module

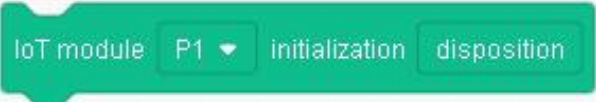

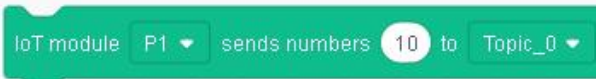
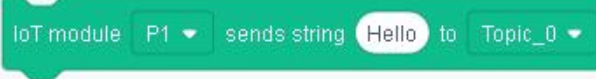
Run the Zmrobo3 software and select the corresponding controller type (Here is the E6 controller).




Add the IoT extended programming module.



Description of the IoT extended programming module

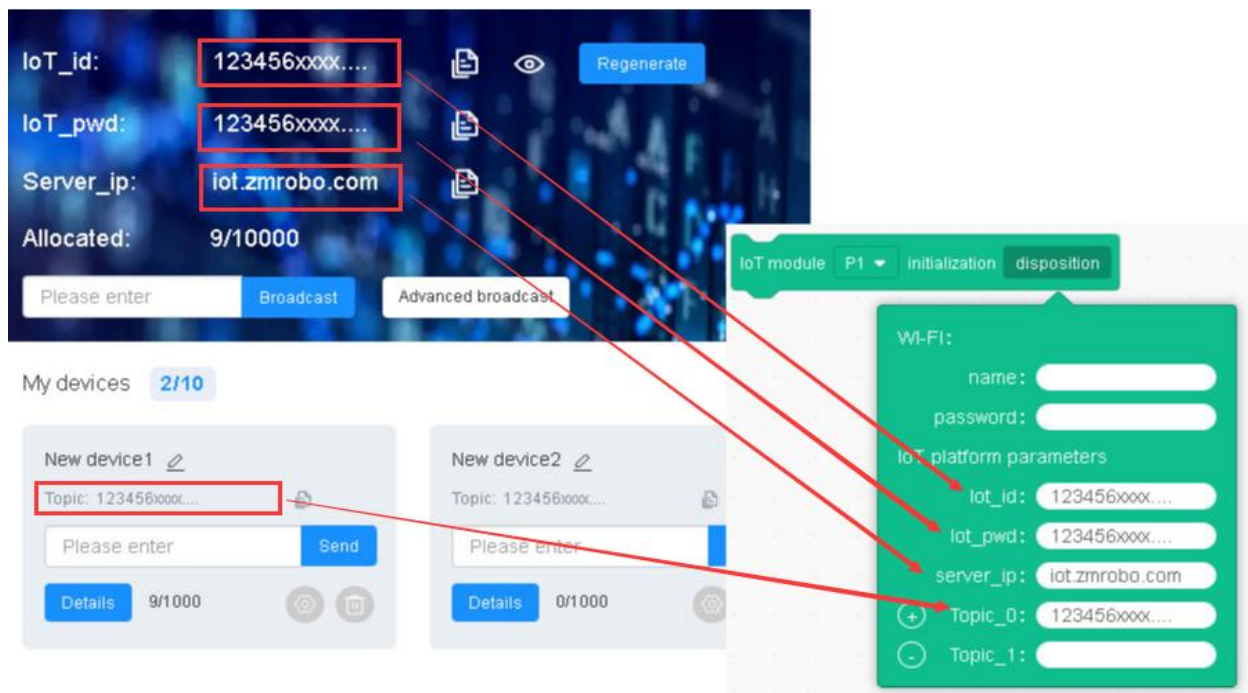
Graphic	Function	Returned Value
	The IoT module initialization configuration.	No
	It can determine whether the obtained IoT platform information is consistent with the specified string, which is used to control the device.	1/0
	Send digital information to the IoT platform to detect or record device status.	No
	Send string information to the IoT platform for detecting or recording device status.	No

4.3 Application examples

During programming, it is needed to configure the IoT module and bind Wi-Fi, user information and device Topic (register and obtain it in the platform of <https://iot.zmrobo.com>). Click  to add or delete device Topic.

The Topic of a device can be understood as the "address" of the device, which is used to identify the device and the messages delivered by the device. Similar to how people find the corresponding room through the house number, the client

can find the corresponding device through the Topic and receive the message delivered by the device.



Wi-Fi name: 2.4G Wi-Fi name

Wi-Fi password: The password for the Wi-Fi

iot _ id: The user ID displayed in the ZMROBO IoT platform

iot _ pwd: User password displayed in the ZMROBO IoT platform

server _ ip: Fill in " iot.zmrobo.com ", without quotation marks

Topic_0: Topic of the device

4.3.1 Environmental sound detection

The current environmental sound value is reported to the IoT platform once a second, and the recorded value is available for analysis.

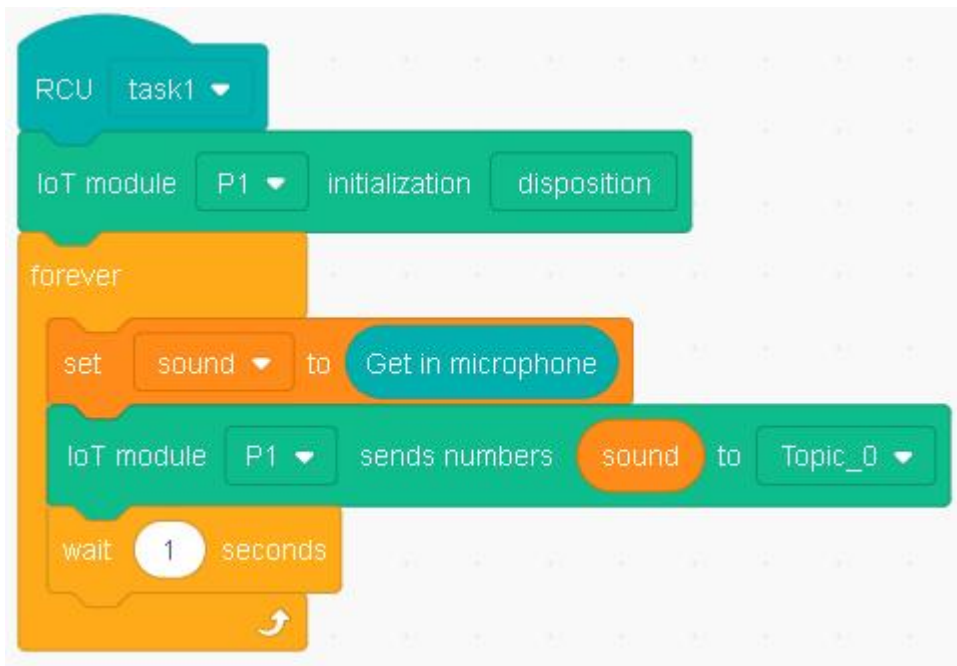


Chart to record information



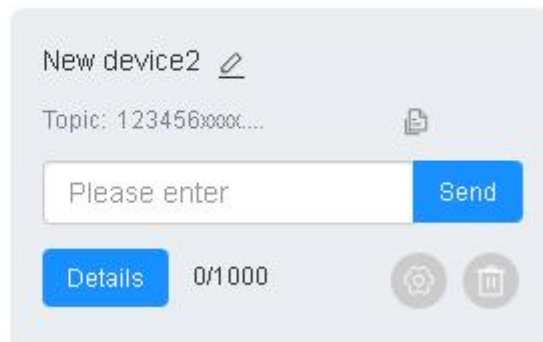
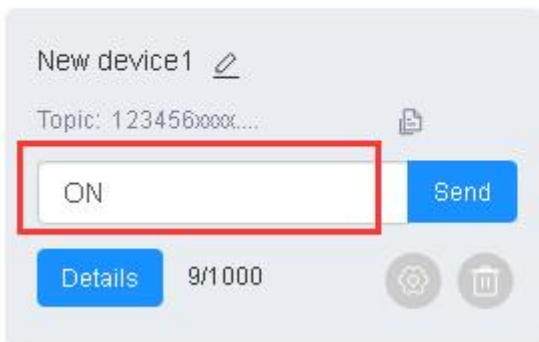
4.3.2 IoT screen control system

It can send "ON" and "OFF" information through the IoT platform to remotely control the screen to turn on and off.



After entering the corresponding string to send the message, you can control it remotely.

My devices 2/10



4.3.3 Application Notes

When the controller runs the IoT module configuration, the screen will automatically display the current configuration status. We can troubleshoot the cause of the configuration failure according to display error steps.

