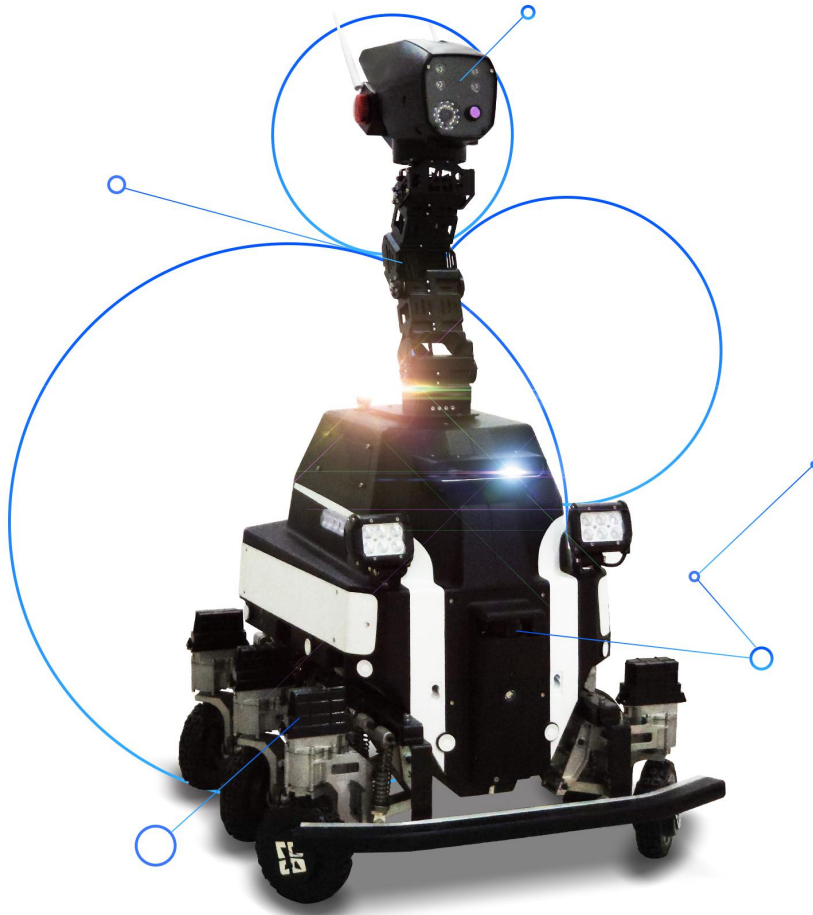


# 安防机器人平台操作手册

SECURITY ROBOT SERVICE PLATFORM MANUAL

FCC ID:2AVH4DLZYROBOT15422



Version V1.1



## Contents

Contents.....	- 1 -
<b>Introduction.....</b>	<b>- 2 -</b>
1. Platform Login.....	- 3 -
1.1 Security Robot Platform Login.....	- 3 -
2. Function Description.....	- 3 -
2.1 Robot List Interface.....	- 3 -
2.1.1 Control Page.....	- 4 -
2.1.2 Patrol Initiation.....	- 5 -
2.1.3 Voice Interaction.....	- 6 -
2.1.4 Function Switch.....	- 6 -
2.1.5 Hardware Configuration.....	- 7 -
2.2 Map Management.....	- 8 -
2.3 Audio Management.....	- 11 -

## Introduction

Security robot platform is a tool for users to operate the product. Automatic patrol can be initiated by creating maps and setting path points on the platform. Other functions such as real-time control, remote view of the live video captured by the robot camera , voice interaction, robot information and motor status check can also be easily realized through the platform.

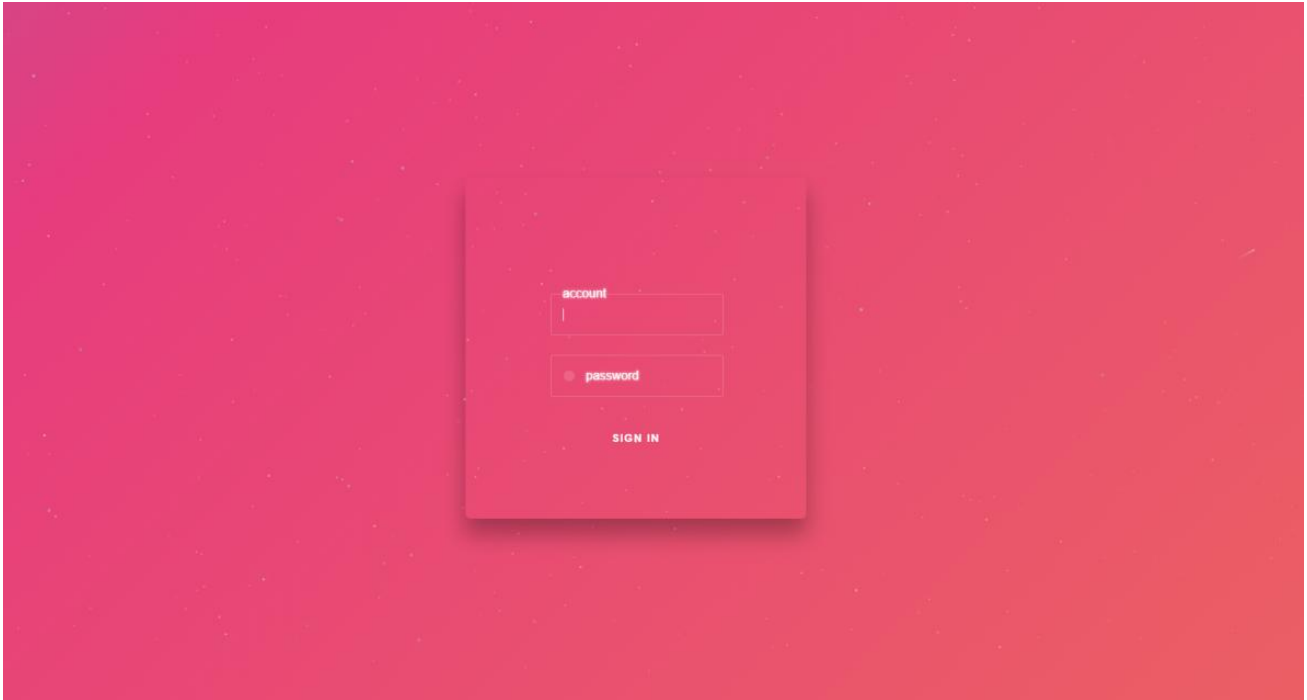
**Note: Security robot platform uses shielded cables with ferrite beads to meet RE / RSE requirements. Users need to use our accessories to use this product.**



## 1. Platform Login

### 1.1 Security Robot Platform Login

Log on the platform by entering user name and password.

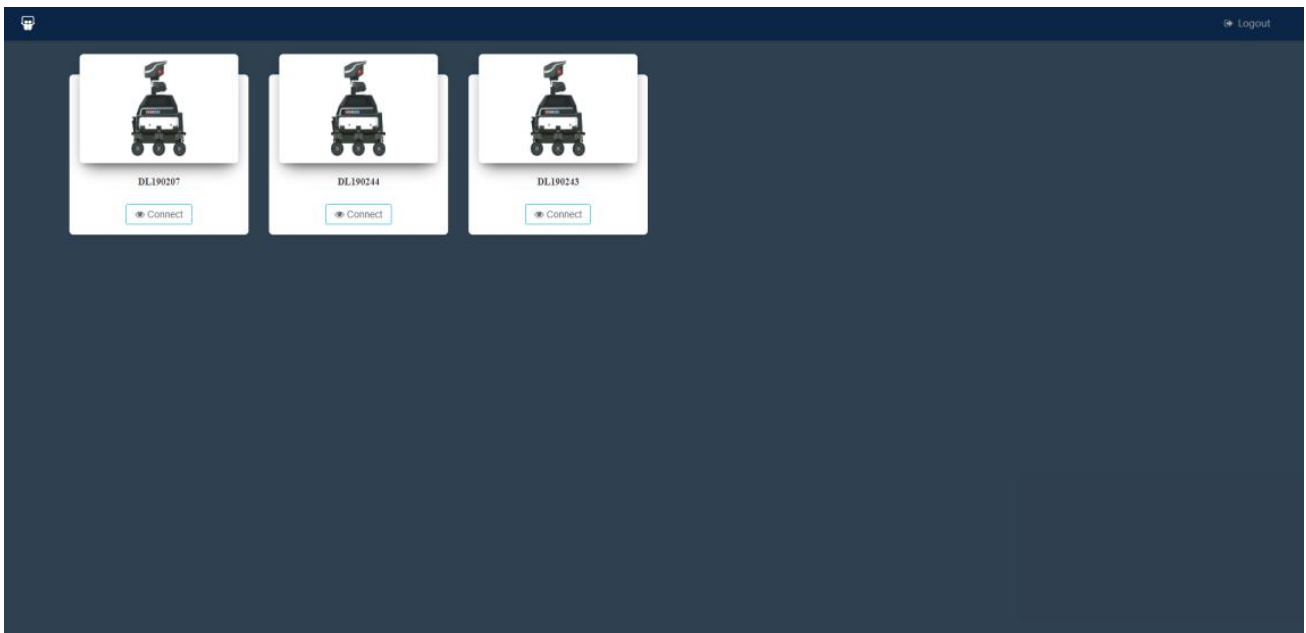


(Login Page)

## 2. Function Description

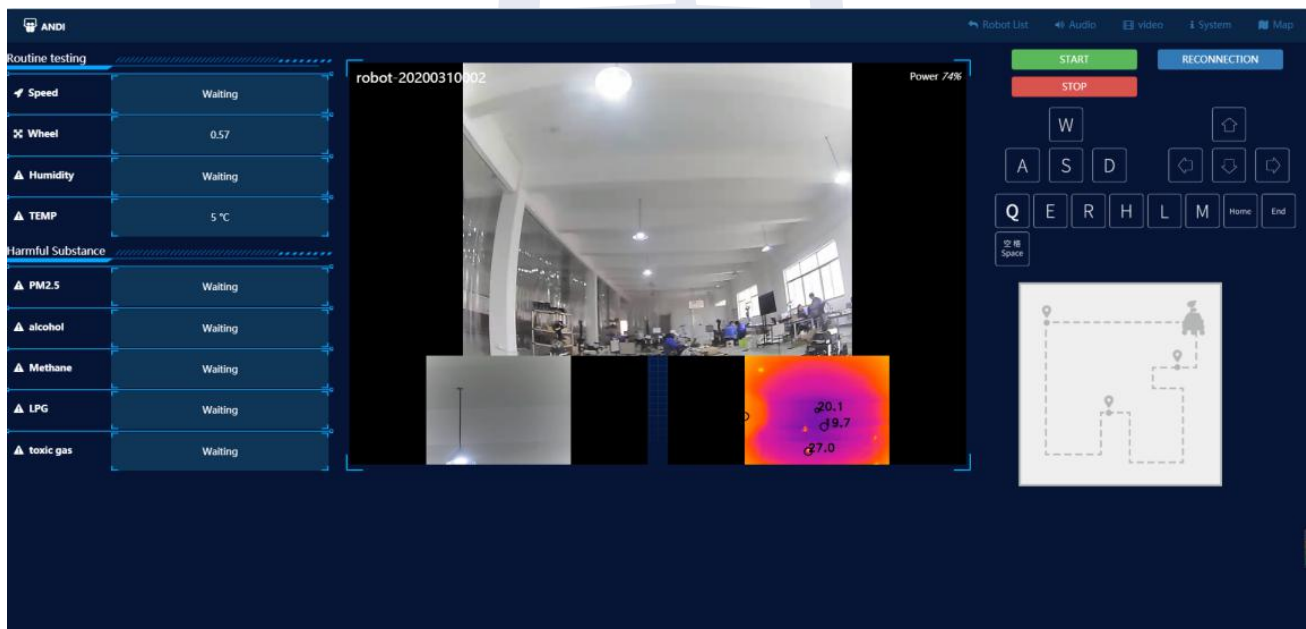
### 2.1 Robot List Interface

Deployed robots that have been recorded by the current system are shown on the list.



### 2.1.1 Control Page

Log on the platform and click on "View Robot Details", you will see the real-time control page where you could control the robot remotely and check videos, current robot status, alarm recording, patrol path, etc. At the page center is a threeway real-time image taken by robot cameras.



(Control Page)

Thermal camera: This camera is to get the temperature of the surrounding environment and convert invisible light into a visible image. It's able to detect temperature anomalies of the surrounding environment.

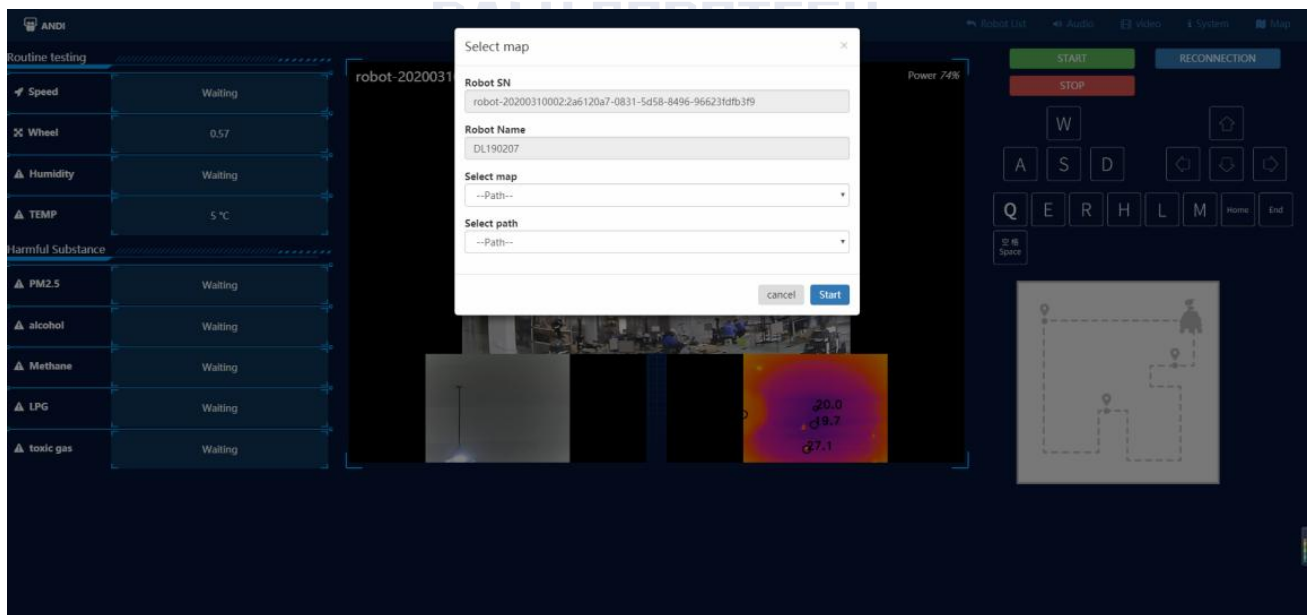
Fisheye camera: With wider FOV, it reduces blind spots for shooting.

Telephoto camera: Telephoto camera detects environment condition and shoots in distance. It's adept in responding to long-distance anomalies.

By operating the keyboard after the letter prompt appeared on the control page, you may control the robot's steering Gear Motion Control System to realize operations including forward and backward movement of the robot. You may also check the current surrounding environment of the robot by controlling its head movement. Home and End keys are for you to control robot neck lift to check robot view from different locations and angles. Clicking L and M button allows you to switch stop light, E and R button to switch the robot alarm on and off, and H button to open the robot's Ai Voice Intercom. At the page center, you may check the video that the robot has collected in real time and observe the surrounding environment so as to realize robot security patrol.

### 2.1.2 Patrol Initiation

Click on "Start Patrol" to set patrol navigation. Import the map and path required by the robot for navigation and then click on "Start Patrol" button to initiate the patrol.



With related sensors (such as laser, infrared, camera, IMU, etc.) , the robot can automatically locate and identify indoor and outdoor environments, terrain features, environmental layout, etc. to realize automatic patrolling and intelligent services.

### 2.1.3 Voice Interaction

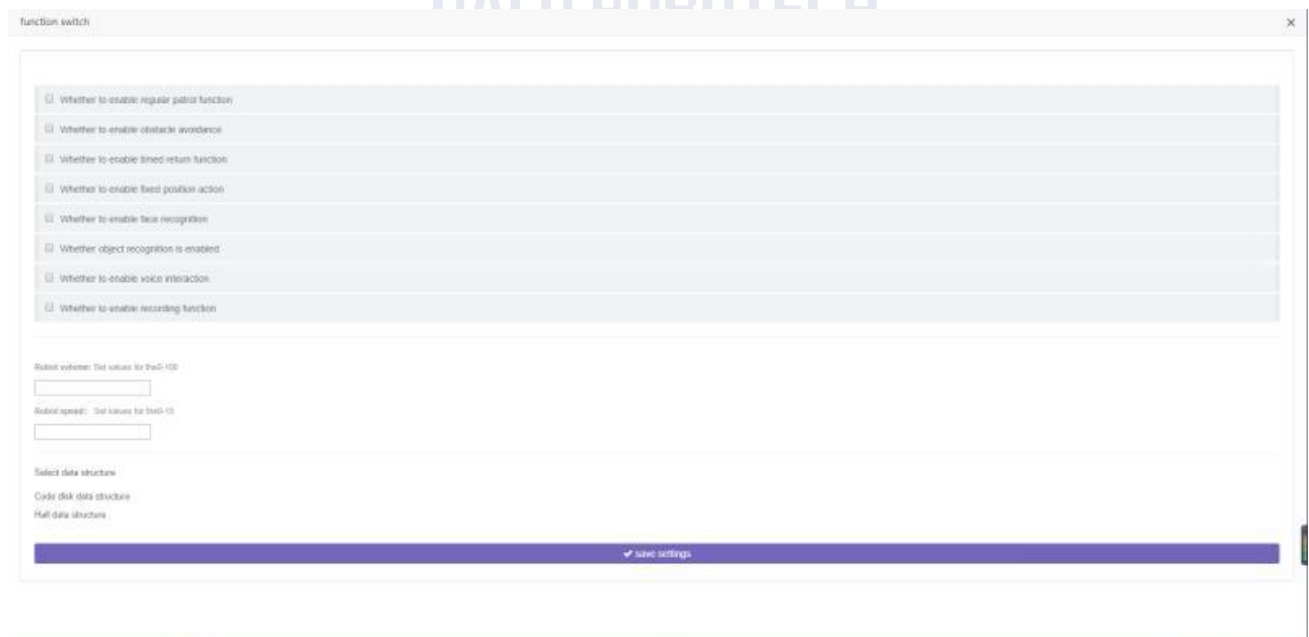
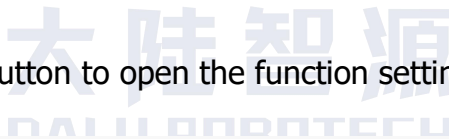
Hit H button on the computer to open the AI voice interaction module.

Voice interaction enables the robot to engage conversation with human via the built-in Voice Conversation Library. The speech dialogue is a process in which the robot collects the audio data from the microphone, and then analyzes and extracts the human voice data for semantic understanding, response text generation and speech generation.



### 2.1.4 Function Switch

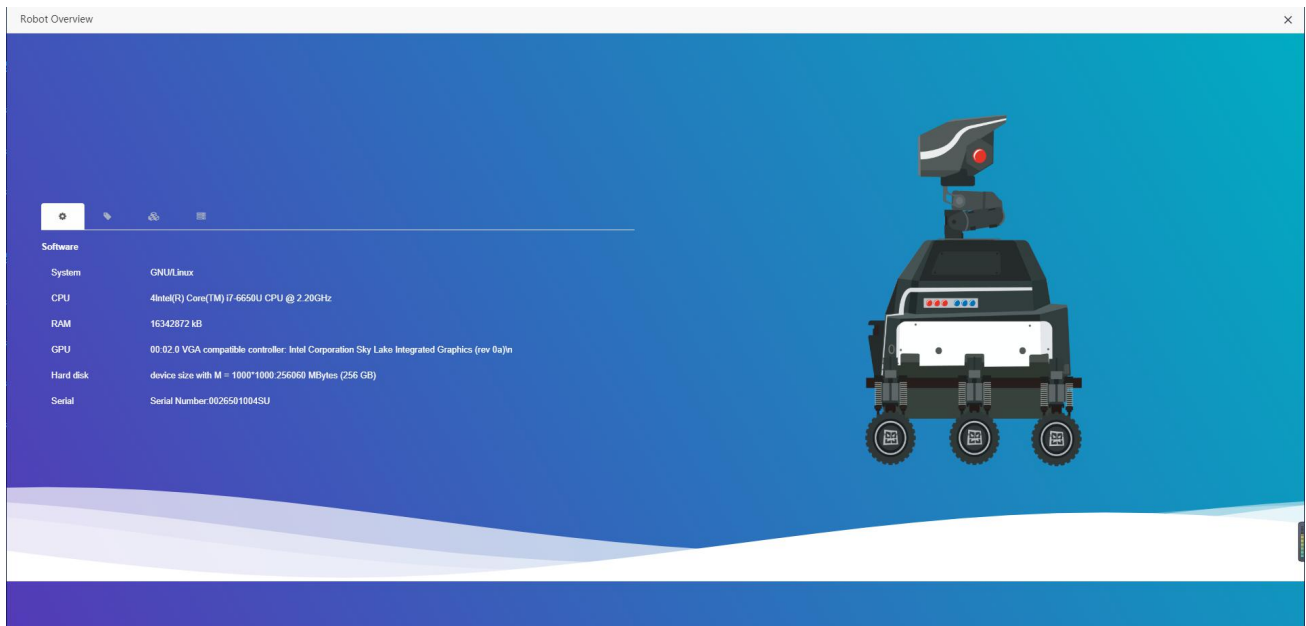
Click on "Function Switch" button to open the function settings page.



On this page, you may enable object recognition, face recognition, video recording, voice interaction and other robot functions as you need and you may also adjust the volume and patrol speed remotely.

### 2.1.5 Hardware Configuration

Users can view various hardware data of the robot by clicking on "Hardware Configuration" button on the page.



(Hardware Configuration Page)

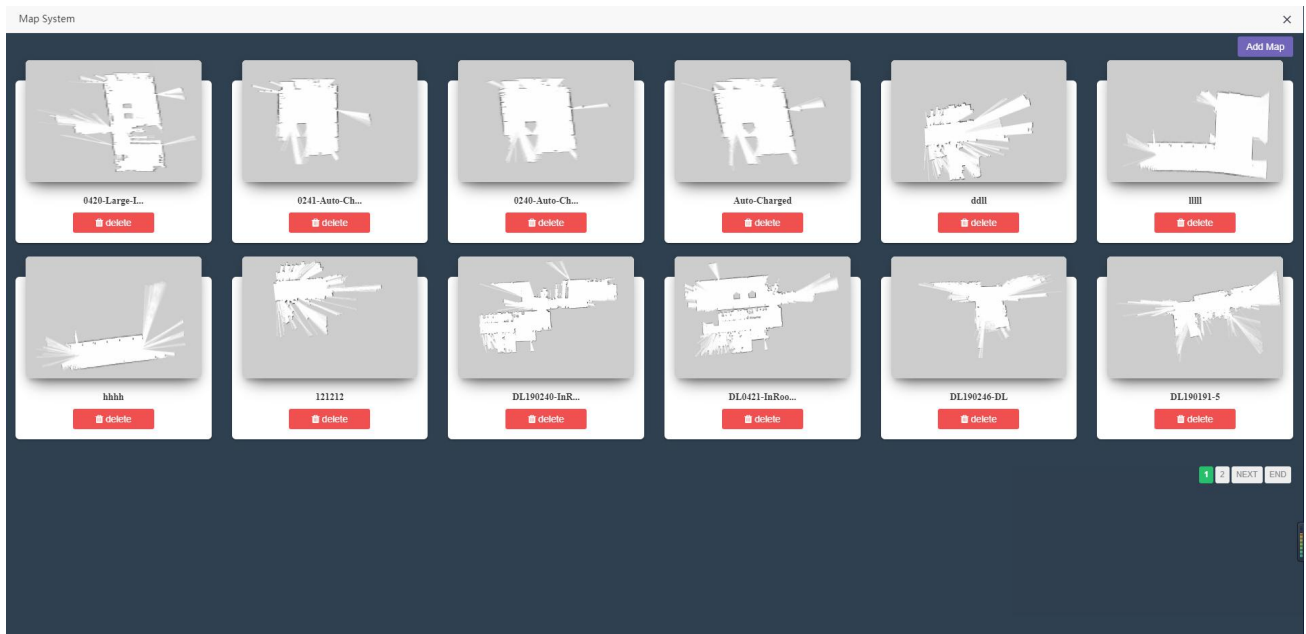
The hardware configuration page allows you to view the robot's system data:

- CPU, GPU, memory, hard disk and other system information.
- Information on the current version of the robot system, GPS and LIDAR.
- Robot name and system name
- Robot camera
- Robot serial port (motor serial port and robot head serial port)



## 2.2 Map Management

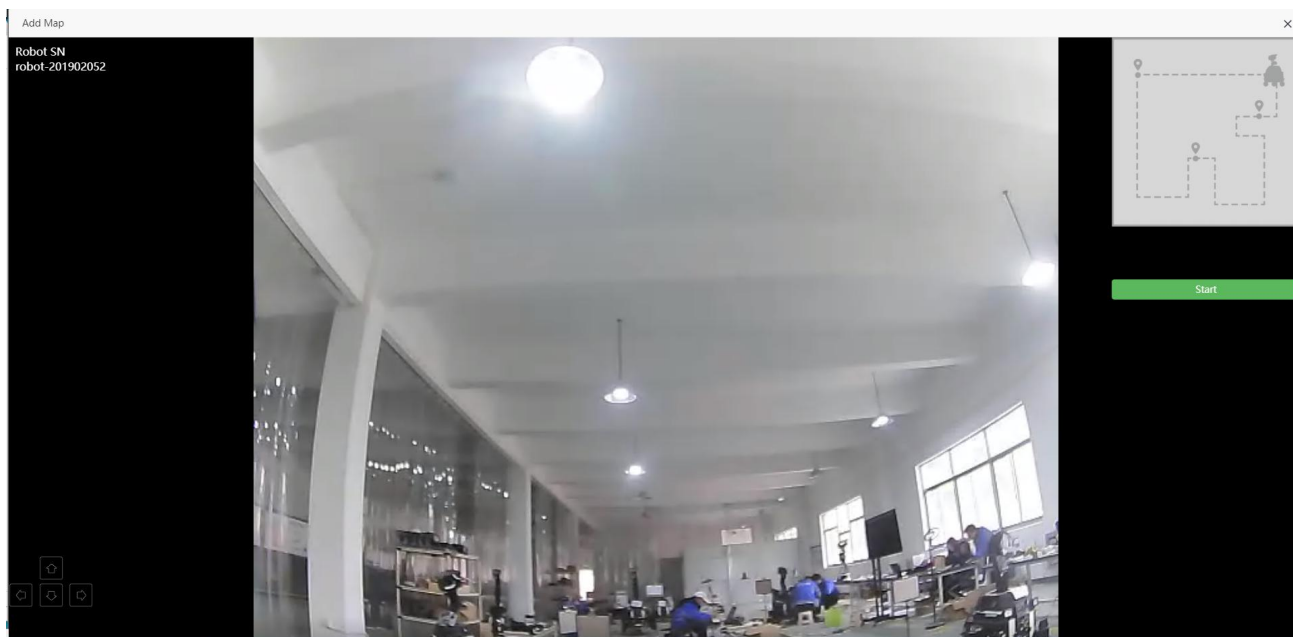
Create maps needed by the robot, and then press navigation button on the control page to start automatic patrol. The Map Management Page lists the maps that robots can currently patrol with.



(Map Management Page)

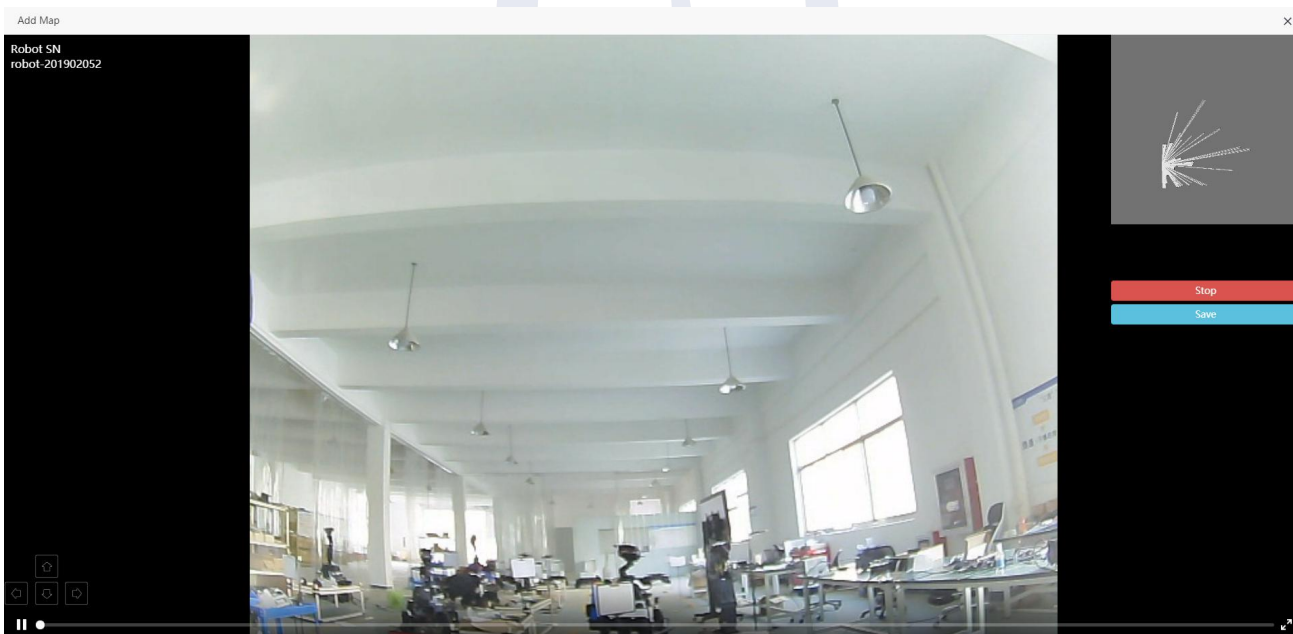
Map Management presents all map data in the form of cards and enables paging and creating new maps. A click on the map card leads you to the path management module under the map. Map will be deleted by clicking on the "Delete Map" button. "Adding Map" button is for you to enter map creating page.

## (1) Map Creating Page



Click on the "Start Mapping" button to go to map modeling mode as shown in the following image.

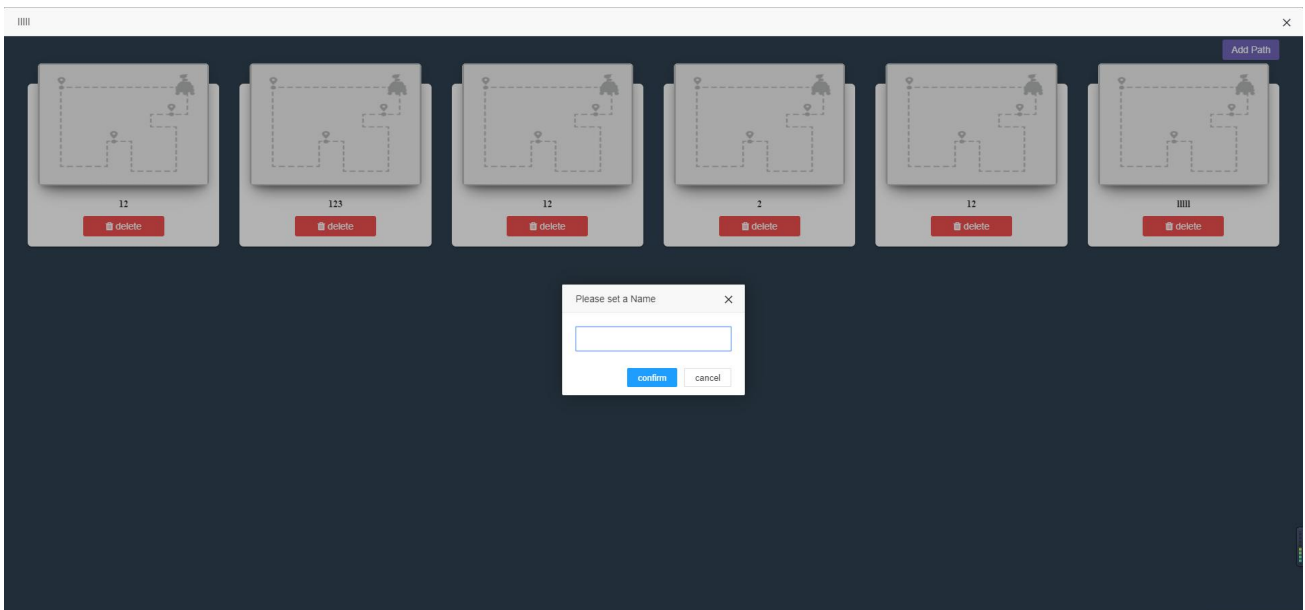
Note: Robot starts patrol from the setting start point of the map.



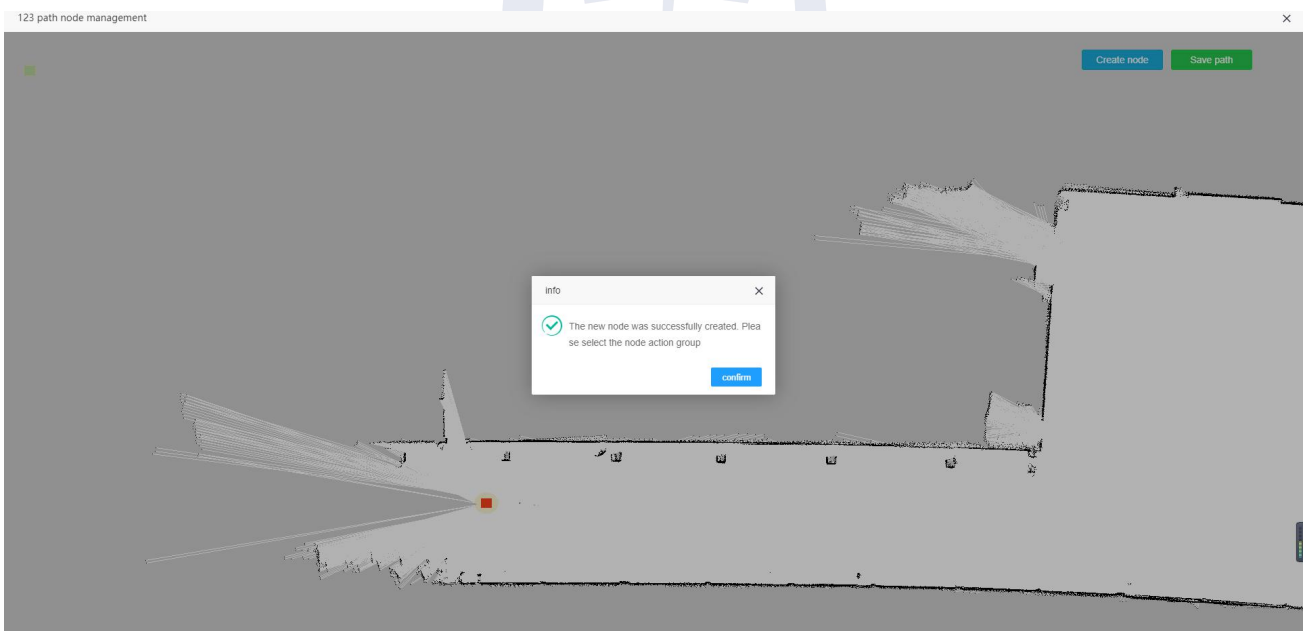
In map modeling mode, a real-time rendering of the modeling scan on the upper right corner of the image allows the user to observe the mapping progress.

Click on "Save Map", the robot will stop collecting map modeling data, and upload the data to the server side.

## (2) Create a Path

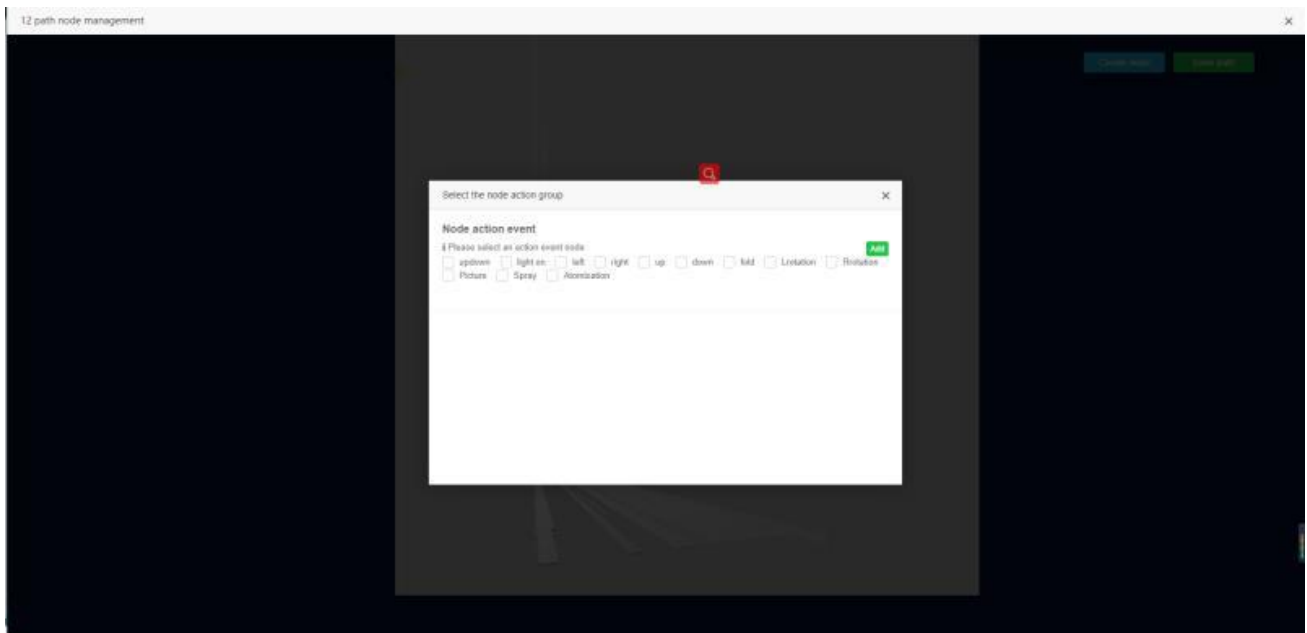


Click on the map card, hit "Add Path" button, enter the name of the path you want to create, and click "OK" to enter the path creation interface, as shown below.



Click on "New Node" to add nodes according to the prompt. when creating new path nodes, users need to select the intended action groups to be performed by the robot at nodes. Multiple groups of actions can be set at each node. (e.g. At the current node, the robot is required to rotate fixed angles for fixed-point photography.)

**Note: Avoid setting nodes too close to the white area edge.**



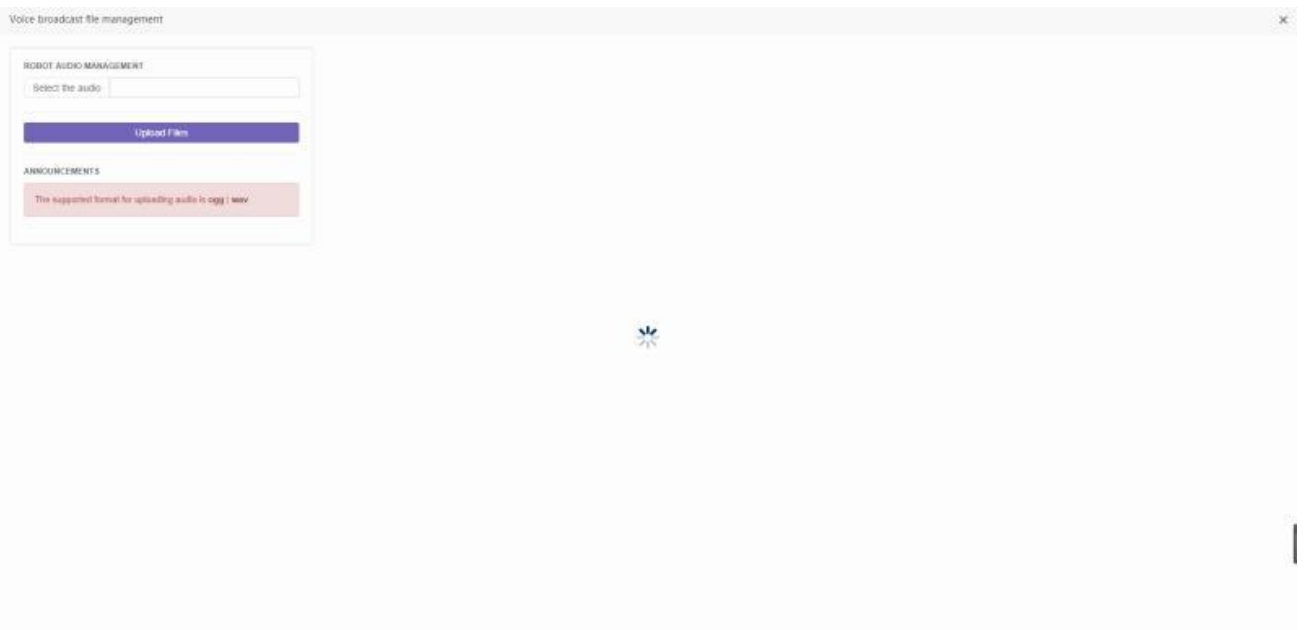
Click on "Edit Node Action" to add action groups.

After setting up nodes, click on "Save Path" to upload the node data to the service side and to complete the path creation process.

## 2.3 Audio Management

Audio management is to set up audios for the robot to play.

You may upload an audio file for the robot to play.



## FCC

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction. Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.