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# Chapter 1 Overview

At present, the LED display control system industry uses computer-based control software for control. Each project site needs to bring a separate computer for debugging, which is very inconvenient. Smartphones have become electronic products that everyone carries with them, and mobile phone-based LED screen control software has become an urgent need in the industry.

Seeing this market demand, Grayscale Technology, a leader in asynchronous control systems for LED displays, launched a cool and easy-to-use mobile screen control APP - "Screen Control".

users install this APP on their mobile phones or tablets, they can control the LED display via Wi-Fi .

#### 1. System requirements

- 1. Hardware: Full asynchronous full-color control system;
- 2. Mobile phone system: Android 4.0 and above, iOS 7.0 And above.

## 2. way of communication

 $\label{thm:control} \mbox{Via control card\,Wi-Fi\ The\ wireless\ signal\ sent\ by\ the\ module} \\ \mbox{connects\ to\ the\ control\ card\ .}$ 



# Chapter 2 APP Installation and Uninstallation

#### 1. Screen control installation

Users can go to major mobile app stores such as: Huawei, Xiaomi, OPPO, vivo, Yongyongbao, 360, Wandoujia, APP Store Search for "Screen Control" or "LedArt" to download and install, or scan the QR code to download and install.



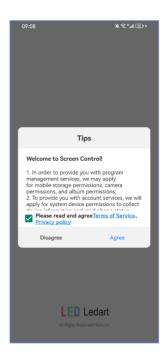
#### 2. Screen Control Uninstallation

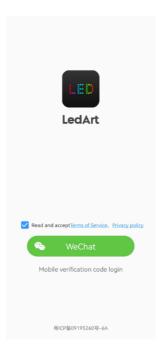
Long press the "Screen Control" icon on the mobile phone interface to delete it.

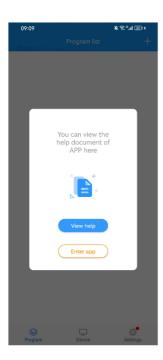


# 3. Software registration

When running the software for the first time, you must complete the WeChat login/ mobile phone number verification code registration. The software can only be used after registration is completed; you can view the help document (ie simple usage instructions).



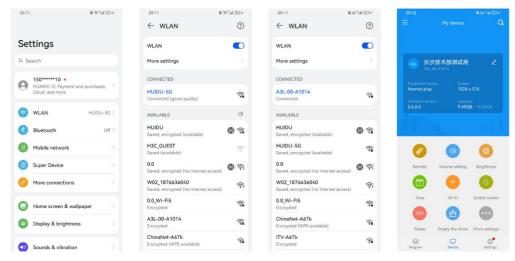




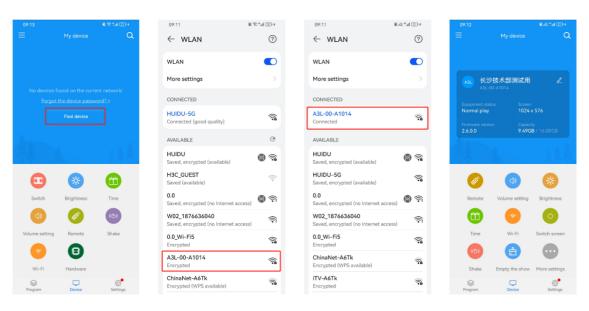
# Chapter 3 Program Editing and Delivery

#### 1. Wireless WiFi connection and password modification

1)Open "Settings" - "Wireless Settings (or WLAN/Wi-Fi)" on your phone, find the wireless signal of the control card (such as: A3L-00-A1014), click and enter the password (default: 8 "8") and then connect.



2) In mobile APP ——Use the "Search" function on "Screen Control" to select the wireless controller corresponding to the control card. Wi-Fi signal connection.



## 3. Software main interface

- 1. The software interface includes device information and function setting areas.
- 2. Function settings include remote control, volume settings, brightness settings, time correction, WiFi settings, screen switching, flicking, clearing programs, more settings and editing program modules.



# 3. Edit the program

"Program" button under the functional area, create a new display - select device - add, enter the display name and display resolution (note: the display resolution can generally be read back automatically)







#### 4. Video editing

- 1. Click the "+" icon in the APP program editing interface—Add video—Click the "+" icon under the video area—Click the " $\equiv$ " icon on the upper right to select the path—Select video—Preview the effect.
  - 2. + " icon under the video area again to add the video file again.
- 3. Press and hold the light blue circle and square at the edge of the video area to drag the area size; press and hold the middle of the area to move the video area.
- 4. After adding the video, the properties of the video are shown below, where you can set to maintain the aspect ratio, transcode the video (when the video is sent to the display but not displayed, it can be transcoded to a lower resolution), and set the border.





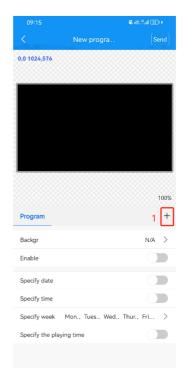


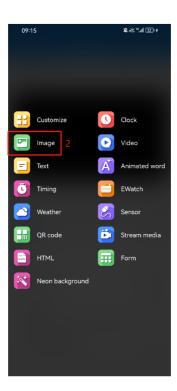




## 5. Image Editing

- 1. Click the "+" icon on the APP program editing interface—add a picture—click the "+" icon under the picture area—click the " $\equiv$ " icon on the upper right to select a path—select a picture—preview the effect.
- 2. When adding multiple pictures, long press the video on the video selection interface to select multiple videos; or re-click the "+" icon under the picture area to re-add picture files.
- 3. Press and hold the light blue circle and square on the edge of the picture area to drag the area size; press and hold the middle of the area and drag to move the position of the video area.
- 4. After adding the image, below are the properties of the image. Enable the use of special effects. You can set the display style, display speed, maintain aspect ratio, send the original image, and set the border.

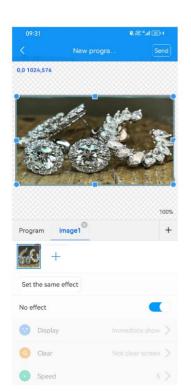






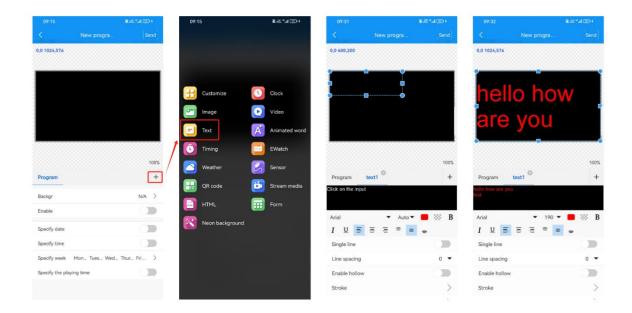






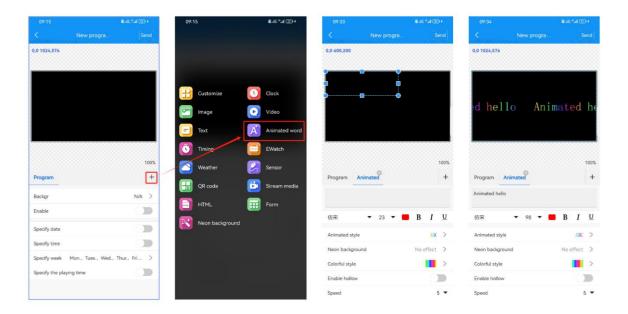
# 6. Text editing

- 1. Click the "+" icon in the APP program editing interface, and then select Add Text to enter the text interface.
- 2. Press and hold the light blue circle and square on the edge of the text area to drag the area size; press and hold the middle of the area and drag to move the position of the video area.
- 3. Enter the text content that needs to be displayed, and set the text color, background color, alignment, font, bold, italics, underline and other special effects.
- 4. Below the editing text, you can set the properties of the text, such as colorful words, borders of the text area, and display effects.



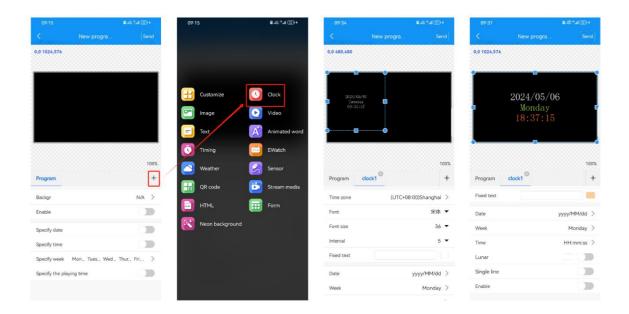
#### 7. Animation word editing

- 1. Click the "+" icon in the APP program editing interface, and then select Add animated characters to enter the animated character editing interface.
- 2. Press and hold the light blue circle and square at the edge of the clock area to drag the area size; press and hold the middle of the area to move the position of the video area.
- $3.\ \, {
  m text}$  content to be displayed , and set the font , bold, italic, underline and other special effects of the text .
- 4. Below the edit animation text, you can set the properties of the animation text, including animation style, neon background, colorful style, speed, border and other properties.



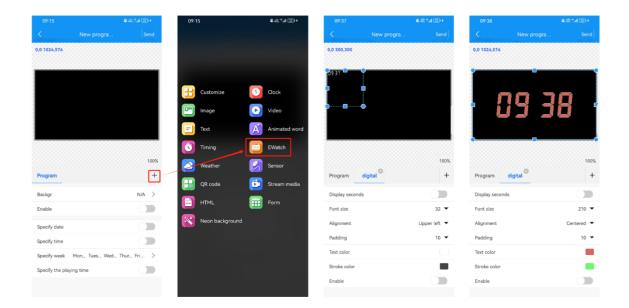
#### 8. Clock Edit

- 1. Click the "+" icon in the APP program editing interface, and then select Add Clock to enter the clock editing interface.
- 2. Press and hold the light blue circle and square at the edge of the clock area to drag the area size; press and hold the middle of the area to move the position of the video area.
  - 3. Select time zone, font, font size, and adjust word spacing.
- 4. In the area below, you can set the clock properties; date display style and color, week display style and color, time display style and color, whether the lunar calendar is enabled and its color, and border settings.



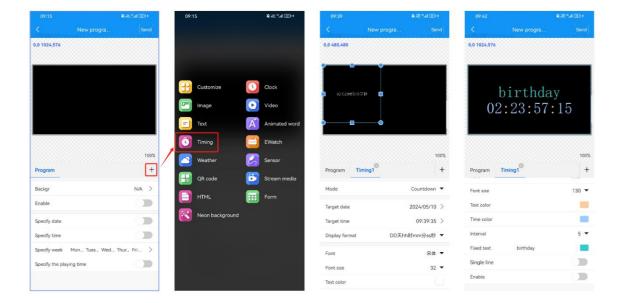
## 9. Ewatch Editing

- 1. Click the "+" icon in the APP program editing interface, and then select Add spreadsheet to enter the spreadsheet editing interface.
- 2. Press and hold the light blue circle and square on the edge of the digital area to drag the area size; press and hold the middle of the area and drag to move the position of the video area.
- 3. Set whether to display seconds, font, font size, alignment, text color, stroke color, and border.



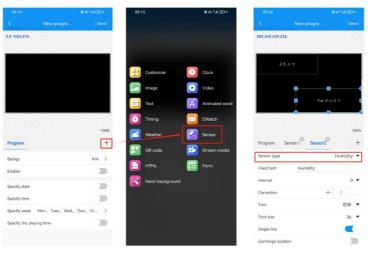
# 10. Timing editing

- 1. In the APP program editing interface, click the "+" icon, then select Add Timer to enter the timer editing interface.
- 2. Press and hold the light blue circle and square at the edge of the timing area to drag the area size; press and hold the middle of the area to move the position of the video area.
- 3. Select the timing type (countdown, forward, fixed duration), set the target date, target time, and display format.
- 4. Set the font, font size, text color, time color, fixed text (custom), spacing (the upper and lower spacing between fixed text and time).



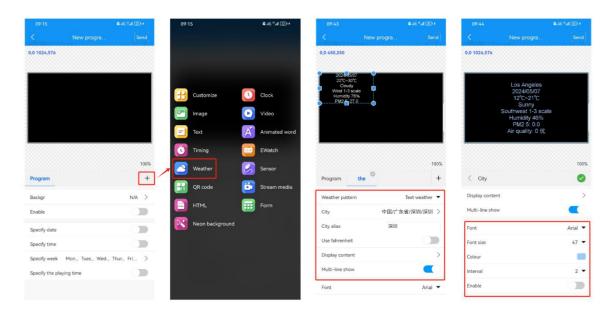
#### 11. Sensor Editing

- 1. In the APP program editing interface, click the "+" icon, then select Add Sensor to enter the sensor editing interface.
- 2. Press and hold the light blue circle and square at the edge of the sensor area to drag the area size; press and hold in the middle of the area to move the position of the video area.
- 3. Select the sensor type, set the font, font size, spacing, and whether to add a border.
- 4. When you want to add multiple types of sensors, click the "+" icon again, select Add Sensor, and select the corresponding sensor type.



#### 12. Weather Editor

- 1. In the APP program editing interface, click the "+" icon, then select Add Weather to enter the weather editing interface.
- 2. Press and hold the light blue circle and square on the edge of the weather area to drag the area size; press and hold the middle of the area to move the position of the video area.
- 3. Select the weather style, set the city, display content, multiline display/single-line display (click the multi-line display to change it to single-line display).
- 4. Set the font, font size, color, spacing (top and bottom spacing), and whether to enable borders.



## 13. QR code editing

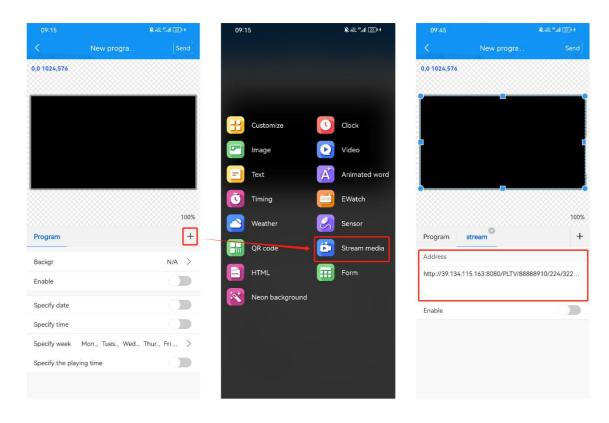
- 1. In the APP program editing interface, click the "+" icon, then select Add QR code to enter the QR code editing interface.
- 2. Press and hold the light blue circle and square on the edge of the QR code area to drag the area size; press and hold the middle of the area and drag to move the position of the video area.
- 3. Enter the URL address of the  $\ensuremath{\mathsf{QR}}$  code in the box below the  $\ensuremath{\mathsf{QR}}$  code.



#### 14. Streaming Editor

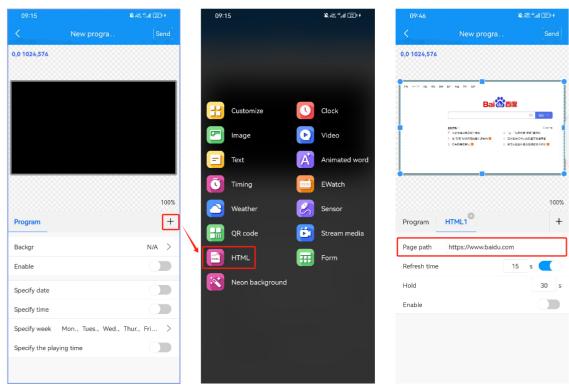
- 1. Click the "+" icon in the APP program editing interface, and then select Add Streaming Media to enter the streaming media editing interface.
- 2. Press and hold the light blue circle and square on the edge of the streaming area to drag the area size; press and hold the middle of the area to move the position of the video area.
- 3. Enter the URL of the streaming media in the box below the address.

Note: The added streaming media address cannot be previewed on the APP. The normal display on the LED display is the normal status.



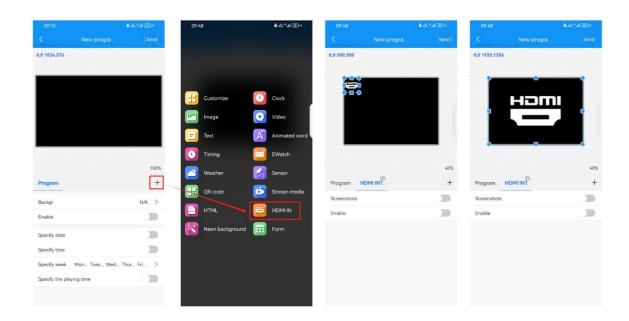
#### 15. HTML Editing

- 1. Click the "+" icon in the APP program editing interface, and then select "HTML" to enter the HTML editing interface.
- 2. Press and hold the light blue circle and square on the edge of the HTML area to drag the area size; press and hold the middle of the area to move the video area.
  - 3. Enter the HTML URL in the box below the web page address.
- 4. By default, HTML is refreshed every 15 seconds and will not be displayed in real time. You can set the dwell time (30 seconds by default) and whether to enable the area border (the border is not enabled by default).



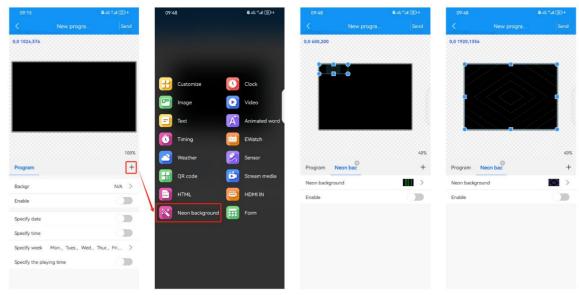
## 16. HDMI IN

- 1. Click the "+" icon in the APP program editing interface, and then select to add "HDMI IN" to enter the HDMI IN editing interface.
- 2. Press and hold the light blue circle and square at the edge of the HDMI IN area to drag the area size; press and hold in the middle of the area to move the position of the video area.
- 3. HDMI IN: Connect the asynchronous sending box to the HDMI cable (HDMI cable connects the computer and the sending box), add the HDMI IN area to send, and the display can show the computer desktop.



#### 17. Neon background editing

- 1. Click the "+" icon in the APP program editing interface, and then choose to add "Neon Background" to enter the neon background editing interface.
- 2. Press and hold the light blue circle and square on the edge of the neon background area to drag the area size; press and hold the middle of the area to move the position of the video area.
- 3. Click on the neon background to select different types of background styles.
- 4. Usually, neon backgrounds are used with texts, adding neon backgrounds as background decorations for texts.

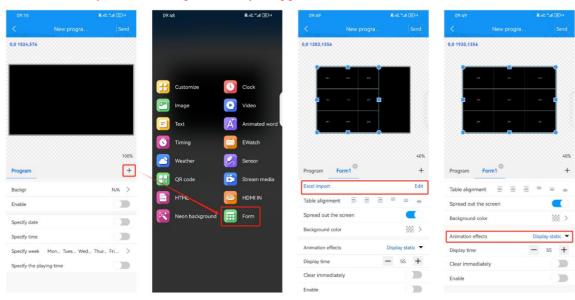


## 18. Table Editing

#### (1) Add a table

- 1. Click the "+" icon in the APP program editing interface, and then select Add "Table" to enter the table editing interface.
- 2. Press and hold the light blue circle or square on the edge of the table area to drag the area size; press and hold the middle of the area and drag to move the position of the video area.
- 3. Excel import: import the edited Excel, edit: edit the table on the APP.

Note: The default is white font with transparent background. Currently, table import only supports .xls and .xlxs formats.



#### (2) Table editing

- 1. Double-click to select a cell, and the cell content can be edited after selection. Long-press can select multiple cells. If there is no selection, the default is to modify them uniformly.
- 2. Long press the border line to drag to adjust the row width and column height of the table.
- 3. After selecting a cell, you can delete rows, delete columns, add 1 row up, add 1 row down, add 1 column to the left, add 1 column to the right, merge cells, and split cells (unmerge).
- 4. If it exceeds the lower edge of the dotted line of the table, it will be displayed on the next page; if it exceeds the dotted line on the right side of the table, the excess part will not be displayed.









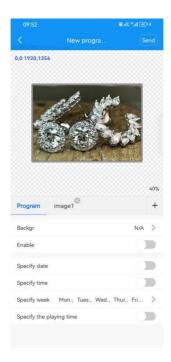






#### 19. Program settings

Select a program and set the properties of the program, such as borders, playback on specified dates, playback on specified time periods, playback on specified weeks, and playback duration.



#### 20. Regional settings

Under the same program, you can set up multiple areas to display (such as videos, pictures, text, clocks, etc.), and the areas under the same program can be played at the same time; but when the areas are covered together, the areas added later will overwrite the areas added earlier. Area coverage, so when setting the area, pay attention to the setting of the area size and the order in which the areas are added.

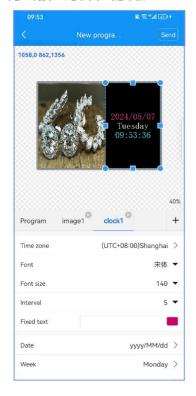
#### Example:

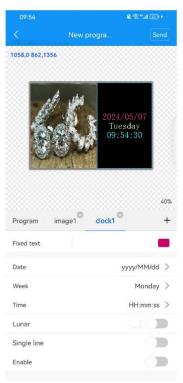
- 1. Picture + clock, the picture is displayed on the left and the clock is displayed on the right.
  - a. First add the picture area, adjust the area and position, then add the clock area and set

The size and position of the clock area; the properties of the picture and clock can be set independently.

b. Press and hold the light blue circle and square at the edge of the picture/clock area and you can drag field size; press

and hold the middle of the area and drag to move the position of the video area.



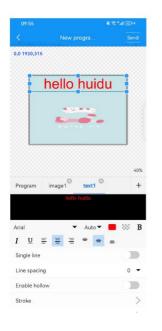


- 2. Video + text. The video area fills the entire screen, and the text is displayed above the video.
  - a. First add the picture area, adjust the area and position, then add the clock area and set

The size and position of the clock area; the properties of the picture and clock can be set independently.

b. Press and hold the light blue circle and square at the edge of the text area and you can drag

Field size; press and hold the middle of the area and drag to move the text area.



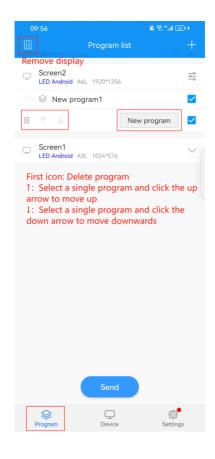


#### 21. Program Management

- 1. In the APP main interface, click the "Program" button in the lower right corner to enter program management. In the program management interface, you can see the display screen and program list, and you can add or delete programs.
- 2. Which program is checked, when you click the delete button, that program will be deleted, all programs

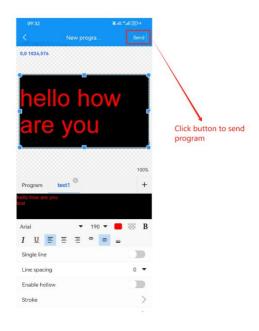
  Check them all and click the Delete button to delete all the programs.
- 3. You can modify the program name when creating a new program; for the added program, long press the program.

  The program name can be modified.

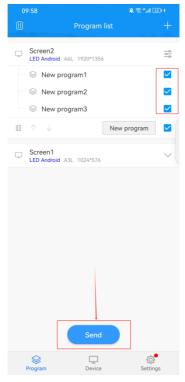


# 22. Program update/send program

1. Single program sent. After editing the program, click the "Send" button in the upper right corner.



2. Send multiple programs. In the program interface, select the program that needs to be updated, and then click the "Send" button to send multiple programs together, and the programs will be played in a loop. Individual programs can also be sent in the program list.

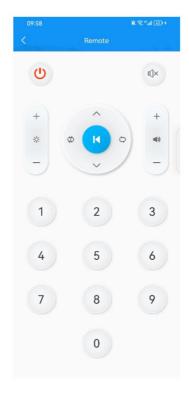


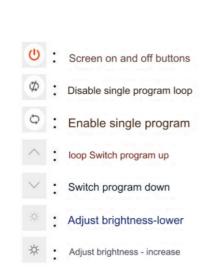
# Chapter 4 General Functions

# 1. Remote control settings

On the device interface of the APP main interface, you can view the currently connected device and click "Remote Control" in the functional area to enter the remote control interface.



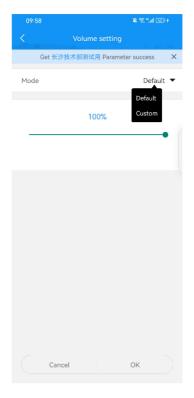


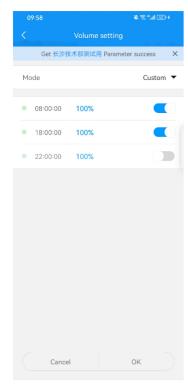


#### 2. Volume setting

- 1. On the device interface of the APP main interface, you can view the currently connected device and click "Volume Settings" in the functional area to enter the sound setting interface.
  - 2. Default mode: directly adjust the sound volume.
- 3. By time period mode: Set the volume for the specified time period; as shown below, the volume from 08:00:00 to 17:59:59 is: 100%, and the volume from 18:00:00 to 07:59:59 is: 60%.
- 4. After the setting is completed, click "OK" and it will prompt "Volume set successfully".

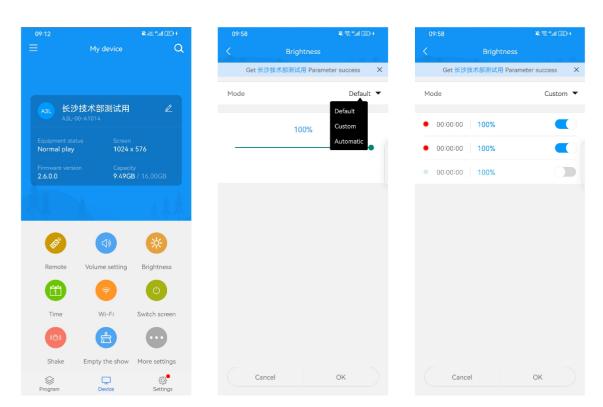






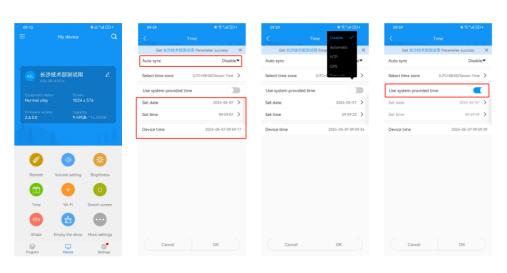
#### 3. Brightness setting

- 1. On the device interface of the APP main interface, you can view the currently connected device and click "Brightness Settings" in the functional area to enter the brightness setting interface.
  - 2. Default mode: directly adjust the brightness.
- 3. By time period mode: Set the brightness of the specified time period; as shown below, the brightness from 08:00:00 to 17:59:59 is: 100%, and the brightness from 18:00:00 to 07:59:59 is: 70%.
- 4. Automatic adjustment: requires an external sensor (brightness sensor).
- 5. After the setting is completed, click "OK" and it will prompt "Brightness set successfully".



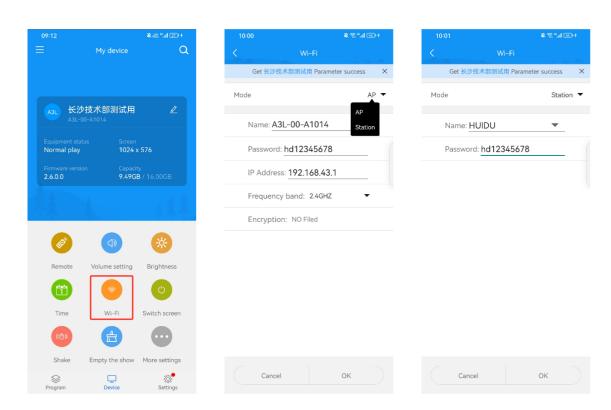
#### 4. Time correction

- 1. On the device interface of the APP main interface, you can view the currently connected device and click "Time Correction" in the functional area to enter the time correction interface; you can select the time zone, view the current time of the device, and various time correction modes.
  - 2. Default mode: Disable time adjustment function.
- 3. Use the date and time of the mobile phone: Enable the "Use the date and time of the mobile phone" button, synchronize the time of the mobile phone, click OK, and it will prompt "Set time successfully". Used more often.
- 4. Automatic: When the device is connected to the Internet or the GPS module, it will automatically adjust the time.
- 5. NTP: Network (Internet) time adjustment. The device needs to be connected to the Internet, and the device will be calibrated based on the time obtained from the Internet.
  - 6. GPS: GPS time adjustment. Requires external device (GPS sensor).
- 7. Mutual time adjustment between devices: Set the master and slave devices, and the slave device synchronizes the time of the master device, and the time of the master device shall prevail. Usually used for multi-screen synchronization, the master and slave devices need to be in the same LAN.
- 8. If the "Use phone date and time" button is not enabled, you can manually set the time and date.



#### 5. WiFi settings

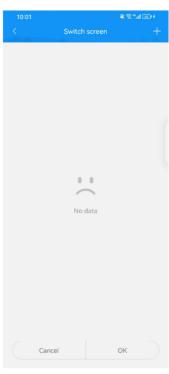
- 1. On the device interface of the APP main interface, you can view the currently connected devices, click "WiFi Settings" in the functional area, password: 888, to enter the WiFi setting interface.
- 2. AP mode: default mode. You can set the WiFi name and WiFi password. The WiFi password requires letters + numbers.
- 3. Station mode: bridge the router's WiFi, and the mobile phone can find the device by connecting to the router's WiFi; however, it needs to be used in an environment where the distance between the device and the router is not far and the WiFi signal is relatively strong.
- 4. After the settings are completed, click the "OK" button and it will prompt "WiFi setup successful".



#### 6. Power on and off settings

- 1. On the device interface of the APP main interface, you can view the currently connected devices, click "On/Off" in the functional area to enter the on/off setting interface.
- 2. Click the "+" icon in the upper right corner to add power on and off time.
- 3. As shown in the figure below: the device is turned on (screen on) at 09:00:00 in the morning, turned off at 12:00:00 in the afternoon, turned on (screen on) at 14:00:00 in the afternoon, and turned off at 21:00:00 in the evening.
- 4. After completing the settings, click the "OK" button and it will prompt "Settings successful".







# 7. Shake settings

- 1. 1. In the device interface of the APP main interface, click the "Dump" button to enter the Dump interface.
- 2. left or right to switch pictures or videos. Select a picture or a video, shake the phone (just feel the phone vibrate) or swipe up on the phone screen, and the picture or video will be sent to the control card without deleting the original content.







#### 8. other settings

- 1. On the device interface of the APP main interface, click the "Settings" button in the lower right corner to enter other settings interfaces.
  - 2. Download management: you can download fonts and emoticons.
  - 3. Selection tool: display card.
    - a. Custom selection (select module information);
- b. Set the module's horizontal and vertical quantity/display pixel points/cabinet information;
  - c. Select the solution and receiving card model;
  - d. Click Next to generate the plan.

