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2) The serial number of this product is ambiguous or lost.
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Safety Information

Electrical safety

- To avoid possible electric shock and serious damage, please unplug the power cord of the printer or controller board from the power socket before any operation.
- When you want to add a hardware device to the system or remove the hardware device from the system, be sure to connect the cable of the device before connecting the power cord.
- Before you connect or disconnect any cables from the controller board, make sure that all power cords have been unplugged in advance.
- Make sure that the voltage setting of the power supply has been adjusted to the voltage standard used in the country / region. If you are unsure of the supply voltage in your area, please ask the nearest local power company staff.
- If the power supply is damaged, do not try to repair it by yourself. Please refer it to professional technical service personnel.

Operational safety

- Before you install the controller board and add hardware devices, be sure to read the relevant information provided in this manual in detail.
- Before using the product, make sure that all cables and power cords are properly connected. If you find any major flaws, problems or loopholes, please contact your dealer as soon as possible.
- In order to avoid electrical short-circuits, be sure to store all unused screws, paper clips, and other parts, and do not leave them on the controller board or printer.
- Dust, moisture and severe temperature changes will affect the service life of the controller board, so try not to place them in these places.
- Do not place the main unit of the printer in a place prone to shaking.
- If you have any technical problems in the use of this product, please contact a professional technician.
About this user manual

The product manual contains all the information you need when installing the CBD-Tech ChiTu L 5.5 V3 series controller board.

User manual layout

The user manual is composed of the following chapters:

- Chapter 1: Introduction to the hardware structure
  
  In this chapter, you can find many excellent features of ChiTu L 5.5 V3 series controller boards that offered by ChiTu systems. With concise and easy-to-understand instructions, you can quickly master the various features of the ChiTu L 5.5 V3 series.

- Chapter 2: Software Function Description
  
  This section describes how to use each button in the firmware program to control the controller board. In addition, the use timing and parameter setting of each setting value of the firmware program will be introduced in detail.

- Chapter 3: After-sales support
  
  This chapter mainly introduces the official channels for product after-sales and technical support.

Conventions used in this guide

In order to ensure that you complete the controller board settings correctly, please pay attention to the special meanings of the following symbols.

- DANGER/WARNING: remind you to pay attention to your own safety when doing a certain job.

- CAUTION: Remind you to take care not to damage the controller board components when doing a certain job.

- IMPORTANT: This symbol indicates that you must complete the installation or configuration of one or more software and hardware in the manner described in the manual.

- NOTE: Provide tips and other additional information that will help you complete a job.
Where to find more information

You can get the product information you use and the update information of software and hardware through the two channels provided below.

1. CBD-Tech website
   You can go to official website: http://www.cbd-3d.com to get all kinds of information about ChiTu Systems products.

2. Other documents
   In addition to the standard accessories listed in this manual, other documents may be included in your product packaging box, such as the product warranty document attached by the dealer.

Caution! This product enjoys a one-year product warranty period. If you tear or replace the original factory warranty serial number label, you will cancel the warranty rights and will not provide maintenance services.
Packing list

Please check the package once you get it, whether all the item listed below are complete.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller Board</td>
<td>ChiTu L 5.5 V3 Series</td>
</tr>
<tr>
<td>Touch Screen</td>
<td>2.8/3.5/4.3/5.0/7.0 inch</td>
</tr>
<tr>
<td>FFC Cable</td>
<td>0.5-40 FFC</td>
</tr>
<tr>
<td>Others</td>
<td>User manual, Connector</td>
</tr>
</tbody>
</table>

- If any of the accessories listed above are damaged or missing, contact your dealer as soon as possible.
- The above illustrations are for reference only, the actual product specifications may vary depending on the model.
# Specification list

<table>
<thead>
<tr>
<th>Basic Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td><strong>Time to market</strong></td>
</tr>
<tr>
<td><strong>Size(mm)</strong></td>
</tr>
<tr>
<td><strong>Weight(g)</strong></td>
</tr>
<tr>
<td><strong>Touch Screen Size(inch)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supported Panel(inch)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Microprocessor Chip</strong></td>
</tr>
<tr>
<td><strong>Stepper Motor Chip</strong></td>
</tr>
<tr>
<td><strong>Flash Memory Chip</strong></td>
</tr>
<tr>
<td><strong>eMMC</strong></td>
</tr>
<tr>
<td><strong>Voltage/Current</strong></td>
</tr>
<tr>
<td><strong>Environmental Factor</strong></td>
</tr>
<tr>
<td><strong>LCD Resin Panel</strong></td>
</tr>
<tr>
<td><strong>USB</strong></td>
</tr>
<tr>
<td><strong>Ethernet</strong></td>
</tr>
<tr>
<td><strong>Others</strong></td>
</tr>
<tr>
<td><strong>Recommended format</strong></td>
</tr>
<tr>
<td><strong>Supported format</strong></td>
</tr>
<tr>
<td><strong>Firmware version</strong></td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.

The trademarks and names mentioned in the form belong to the company whose law is registered.
Summary

Read first

The integrated circuits of board are easily damaged by static electricity. Be sure to make the following precautions before you change any setting:

- Before installing the controller board, please put it in an anti-static mat or anti-static bag.
- When handling the controller board, avoid touching any metal leads or connectors.
- It is best to wear an electrostatic discharge (ESD) wrist strap when handling electronic components such as a controller board. If you do not have an ESD wrist strap, keep your hands dry and first touch a metal object to eliminate static electricity.
- Prior to installation, make sure the chassis is suitable for the controller board.
- Prior to installation, do not remove or break controller board S/N (Serial Number) sticker or warranty sticker provided by your dealer. These stickers are required for warranty validation.
- Always remove the AC power by unplugging the power cord from the power outlet before installing or removing the controller board or other hardware components.
- When connecting hardware components to the internal connectors on the controller board, make sure they are connected tightly and securely.
- To prevent damage to the controller board, do not allow screws to come in contact with the controller board circuit or its components.
- Make sure there are no leftover screws or metal components placed on the controller board or within the printer casing.
- Turning on the power during the installation process can lead to damage to system components as well as physical harm to the user.
- If you use an adapter, extension power cable, or power strip, ensure to consult with its installation and/or grounding instructions.
Standby power LED

The controller board comes with a standby power LED that lights up to indicate that the system is ON, in sleep mode, or in soft-off mode. This is a reminder that you should shut down the system and unplug the power cable before removing or plugging in any controller board component. The illustration below shows the location of the onboard LED.
1.1 Controller board overview

1.1.1 Screw holes

Place 4 screws into the holes indicated by circles to secure the controller board to the chassis.

⚠️ Do not over tighten the screws! Doing so can damage the controller board.
### 1.2 Controller board Layout

<table>
<thead>
<tr>
<th>NO.</th>
<th>Name</th>
<th>NO.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ethernet port</td>
<td>14.</td>
<td>Heat sink</td>
</tr>
<tr>
<td>2.</td>
<td>Reset button</td>
<td>15.</td>
<td>Mainboard fan port</td>
</tr>
<tr>
<td>3.</td>
<td>ARM STM32F4 series CPU</td>
<td>16.</td>
<td>UV LED fan port</td>
</tr>
<tr>
<td>4.</td>
<td>USB 2.0 port</td>
<td>17.</td>
<td>UV LED port</td>
</tr>
<tr>
<td>5.</td>
<td>External motor driver pin</td>
<td>18.</td>
<td>Power supply</td>
</tr>
<tr>
<td>6.</td>
<td>Z motor driver pin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>TFT resistive touch screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>ANOLOGIC EL2F series FPGA chip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Buzzer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>LCD resin panel (MIPI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Z endstop (minimum position)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Z endstop (maximum position)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Z motor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.3 Component overview

1.3.1  Power supply

This port is for power supply for the entire controller board.

Notification:
The power supply voltage should be 12V-24V. The board may not work when voltage under 12V, and there will be a risk in burned when voltage over 24V.

1.3.2  UV LED

This port is for control and signals the LED light device connected.

Notification:
This port output is the same as the board input voltage, and:
The maximum current must NOT exceed 3A  (batch before 2020 May 1st)
The maximum current must NOT exceed 8A  (batch before 2020 May 1st)

1.3.3  UV LED fan

This port is for control and signals the LED light fan device connected.

Notification:
This port output is the same as the board input voltage.
The maximum current must NOT exceed 2A.

1.3.4  Mainboard fan

This port is for control and signals the mainboard fan connected.

Notification:
This port output is the same as the board input voltage.
The maximum current must NOT exceed 2A.

1.3.5  Z stepper motor

This port is for control and signals the Z-axis stepper motor connected.

<table>
<thead>
<tr>
<th>Pin Name/Pin Tag</th>
<th>Number</th>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z_MOTOR</td>
<td>1</td>
<td>1B</td>
<td>Coil 1 end B</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1A</td>
<td>Coil 1 end A</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2A</td>
<td>Coil 2 end A</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2B</td>
<td>Coil 2 end B</td>
</tr>
</tbody>
</table>
1.3.6  Z+ end stop

This port is for control and signals the Z-axis maximum end stop connected.

<table>
<thead>
<tr>
<th>Pin Name/Pin Tag</th>
<th>Number</th>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z+ Endstop (Maximum position) (Z+)</td>
<td>1</td>
<td>+ (VCC)</td>
<td>Power Output</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- (GND)</td>
<td>GND</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>S</td>
<td>Signal pin</td>
</tr>
</tbody>
</table>

Please contact official CBD-Tech support before using this interface to confirm if the current board or firmware supports this port.

1.3.7  Z- end stop

This port is for control and signals the Z-axis minimum end stop connected.

<table>
<thead>
<tr>
<th>Pin Name/Pin Tag</th>
<th>Number</th>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z- Endstop (Minimum position) (Z+)</td>
<td>1</td>
<td>+ (VCC)</td>
<td>Power Output</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- (GND)</td>
<td>GND</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>S</td>
<td>Signal pin</td>
</tr>
</tbody>
</table>

1.3.8  External Z motor driver pin (Common cathode, 3.3V)

This port is for control and signals the external Z-axis stepper motor connected.

<table>
<thead>
<tr>
<th>Pin Name/Pin Tag</th>
<th>Number</th>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Z Motor Driver Pin (Z)</td>
<td>1</td>
<td>DIR</td>
<td>Direction</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>EN</td>
<td>Enable</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ST (STEP/PUL)</td>
<td>Step/Pulse</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>GND</td>
<td>GND</td>
</tr>
</tbody>
</table>

Please contact official CBD-Tech support before using this interface to confirm if the current board or firmware supports this port.

1.3.9  External motor driver pin (Common cathode, 3.3V)

This port is for control and signals the external Z-axis stepper motor connected.

<table>
<thead>
<tr>
<th>Pin Name/Pin Tag</th>
<th>Number</th>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>External motor driver pin (EXT)</td>
<td>1</td>
<td>DIR</td>
<td>Direction</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>EN</td>
<td>Enable</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ST (STEP/PUL)</td>
<td>Step/Pulse</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>GND</td>
<td>GND</td>
</tr>
</tbody>
</table>

Please contact official CBD-Tech support before using this interface to confirm if the current board or firmware supports this port.
1.3.10 LCD resin panel (MIPI port)
This port is for control and signals the LCD panel connected.

1.3.11 TFT Resistive touch screen
This port is for control and signals the resistive touch screen port connected.

1.3.12 USB 2.0
This port is for read the USB 2.0 connected.

1.3.13 Buzzer
This component will emit a “beep” sound to remind you of the completion of an operation or an abnormal error.

1.3.14 Ethernet port
This port is for Ethernet connected.

<table>
<thead>
<tr>
<th>LED picture</th>
<th>LED name</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Activity LED</td>
<td>Blinking (High Frequency)</td>
<td>Data activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yellow</td>
<td>Sleep mode</td>
</tr>
<tr>
<td></td>
<td>Link LED</td>
<td>Green</td>
<td>Connection succeeded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
<td>Connection failed</td>
</tr>
</tbody>
</table>

The timbre of buzzer may be not the same because of the different batch.
Installation Flow

2.1 Installation overview
2.2 Regular installation

2.2.1 Installing power supply

As shown below, connect the power supply wire with “-12V/24V+” port.

As shown below, the arrow shows the where “-12V/24V+” on the board.
2.2.2 Installing touch screen (TFT Resistive)

As shown following steps, connect the touch screen cable (FFC cable).

①、Find the screen connector on the board

As shown below, “U13” on the board.

②、Pull out the black bar

As shown on ②, put your finger on each side of the black bar (mark as red), pull out the bar to follow the arrow direction, as shown on ③.

① Touch screen connector ② Side of the connector ③ Pull out the black bar ④ Connector opened
③ Insert the FFC cable

As shown below, put the FFC cable pin side towards up, stiffeners shielded side (usually the blue side) towards down, make sure to insert the cable all the way till it can’t move forward anymore.

④ Close the black bar back

As shown on ②, put your finger on each side of the black bar (mark as red), push back the bar to follow the arrow direction, as shown on ③.

Please pull the cable again lightly to check if it is installed well.
⑤、Connect the touch screen

Use the same way to connect the rest side of FFC cable with touch screen, on the contrary, stiffeners shielded side towards up and pin side toward down as usual.

⚠️ Ensure that the stiffeners shielded side and pin side connect in the right way following the guide, or the touch screen will not work.

⑥、Installing finished
2.2.3 Installing the LCD panel (printing screen)

As shown following steps, connect the LCD panel cable (printing screen), as shown “MIPI 5.5” on the board.

① Find the LCD panel connector

As shown below, the “MIPI 5.5” on the controller board.

② Connect MIPI cable

Align the port along the silkscreen direction of the controller board and buckle them.
2.2.4 Installing UV LED light

Insert the 2 pins of the UV LED light into “-LED+” on the controller board, you can also install different light source as your demand.

① COB + Reflective Cup

② Parallel LED array

As shown below, the “-LED+” on the controller board.
2.2.5 Installing UV LED fan

Insert the 2 pins of the UV LED light fan into “-LED_F+” on the controller board.

As shown below, the “-LED_F+” on the controller board.
2.2.6 Installing controller board fan

Insert the 2 pins of the controller board fan into 

```
-MB_F+
```

on the controller board.

As shown below, 

```
-MB_F+
```

on the controller board.
2.2.7 Installing Z stepper motor

Insert the 4 pins of the z stepper motor into "Z_MOTOR" on the controller board.

As shown below, the "Z_MOTOR" on the controller board.
2.2.8 Installing Z-axis minimum end stop

Insert the 3 pins of the Z-axis minimum end stop into “Z-” on the controller board.

As shown below, “Z-” on the controller board.
2.4 Firmware update

2.4.1 Firmware file format overview

The following table shows several common files in the firmware update process. You can visit the official website of CBD-Tech (www.cbd-3d.com) to get the firmware version corresponding to the controller board and download.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxx.cbd</td>
<td>FPGA File</td>
<td>FPGA core function file</td>
</tr>
<tr>
<td>xxxxx.gcode</td>
<td>Parameter file</td>
<td>Part of the control parameter file of the printer</td>
</tr>
<tr>
<td>xxxxx.logo</td>
<td>Startup page</td>
<td>The startup page after the printer is turned on</td>
</tr>
<tr>
<td>UI_xxxx.bin</td>
<td>UI file</td>
<td>User interface of firmware program</td>
</tr>
<tr>
<td>update.lcd</td>
<td>Update file</td>
<td>The core function file of the firmware</td>
</tr>
</tbody>
</table>

You can download the file you need instead of downloading all the files.
2.4.2 Firmware update process

A) Check the current firmware version

Open the 3d printer, click the “system” of the main page, you will enter the “system” page.

In the “system” page, click the “Information, you will enter “Information” page.

In the “Information” page, the info after is the current firmware version.

😊 : Chitu L 5.5 V3 Series
ID : XXXXXXXXXXXXXXXXXXXX
 ביקוש : XXXXXXXXXXXXXXXXXXXX
B) Check the compatible board firmware

Please check the compatible firmware of your board on the official website www.cbd-3d.com, you can check info according to your board or ask customer support.

DO NOT upgrade any firmware that not compatible with your board.

C) Download the firmware files

Download the corresponding firmware base on your controller board. You can download it to your PC or laptop.

D) Import firmware file

Import the firmware update files into a blank U disk through your personal computer or laptop (the U disk should be empty or has been formatted). In order to ensure update process without any issue, please ensure that the U disk The remaining space is above 1G, and all files should be placed in the ROOT directory of the U disk.

E) Insert U disk

Power off the printer, Insert the U disk into your printer (or the USB interface of the board).

F) Update core firmware file

Turn on the printer, and it will automatically retrieve the file in the U disk. If the U disk contains the file "update.lcd", the printer will first read and load the file, and then upgrade the firmware. (If the current firmware version is same as the on in U disk, it will not update.)

There will emit twice "beep" sound to remind you of the completion of firmware updating.
G) Update other files

Click “Print” you will enter “file list” page.

In this page you can see all the files and folders in the U disk.

Choose the firmware you want to update, you will enter “file info” page.
In "file info" page, print the file by clicking button, the printer will read the file and start upgrade automatically.

During the updating, please DO NOT click any button in case of updating failed.

⚠️ Please make sure the power won’t off during the updating firmware.

There will emit twice a "beep" sound to remind you of the completion of firmware updating. Restart the printer to check. (Same way for all the firmware format update.)

If you have updated core firmware file, you can follow 2.4.2 to check the current version info.
## 3.1 Function list

The firmware program mainly provides four major functional modules include file management, printing control, component calibration, and system settings.

<table>
<thead>
<tr>
<th>Functional modules</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>File management</strong></td>
<td>U disk read</td>
<td>42-43</td>
</tr>
<tr>
<td></td>
<td>File list display</td>
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<td>70</td>
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</table>
### 3.2 Icon overview

Description of common icons in the firmware program

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Back Icon" /></td>
<td>Back</td>
<td>Back to last page</td>
</tr>
<tr>
<td><img src="image" alt="Start Icon" /></td>
<td>Start</td>
<td>Start printing a file, or continue the file printing process</td>
</tr>
<tr>
<td><img src="image" alt="Delete Icon" /></td>
<td>Delete</td>
<td>Delete a file</td>
</tr>
<tr>
<td><img src="image" alt="Stop Icon" /></td>
<td>Stop</td>
<td>Stop printing process</td>
</tr>
<tr>
<td><img src="image" alt="Pause Icon" /></td>
<td>Pause</td>
<td>Pause the printing process of the current model</td>
</tr>
<tr>
<td><img src="image" alt="Setting Icon" /></td>
<td>Setting</td>
<td>Enter to the settings page</td>
</tr>
<tr>
<td><img src="image" alt="Page up/increase Icon" /></td>
<td>Page up/increase</td>
<td>In the file list page, click to view the list file on the previous page. In the parameter settings page, click to increase the parameter value by one unit</td>
</tr>
<tr>
<td><img src="image" alt="Page down/decrease Icon" /></td>
<td>Page down/decrease</td>
<td>In the file list page, click to view the list file on the next page. In the parameter settings page, click to decrease the parameter value by one unit</td>
</tr>
<tr>
<td><img src="image" alt="U disk file Icon" /></td>
<td>U disk file</td>
<td>Means that the current file list is read from a USB flash drive</td>
</tr>
<tr>
<td><img src="image" alt="Local file Icon" /></td>
<td>Local file</td>
<td>Means that the current file list is read from local storage</td>
</tr>
<tr>
<td><img src="image" alt="Confirm button Icon" /></td>
<td>Confirm button</td>
<td>Confirm and save the entered value</td>
</tr>
<tr>
<td><img src="image" alt="Beep on button Icon" /></td>
<td>Beep on button</td>
<td>Current system prompt sound has been turned on, and can be turned off after clicking</td>
</tr>
<tr>
<td><img src="image" alt="Beep off button Icon" /></td>
<td>Beep off button</td>
<td>Current system prompt sound has been turned off, and can be turned on after clicking</td>
</tr>
<tr>
<td><img src="image" alt="Platform up Icon" /></td>
<td>Platform up</td>
<td>Click it and the platform will move one unit up (away from the resin tank)</td>
</tr>
<tr>
<td><img src="image" alt="Platform down Icon" /></td>
<td>Platform down</td>
<td>Click it and the platform will move one unit down (close to the resin tank)</td>
</tr>
<tr>
<td><img src="image" alt="Reset Icon" /></td>
<td>Reset</td>
<td>Click it and the platform will move to the default height</td>
</tr>
</tbody>
</table>
3.3 Page structure
3.4 Page description

3.4.1 Main page

The first page after controller board start working

Tool: enter “Tool” page

System: enter “System” page

Print: enter “Print” page

3.4.2 Tool page

Include exposure test, component calibration etc.

Manual: Enter “Move Z axis” page

Exposure: Enter “Exposure testing” page

Set Z=0: pop up window for Z to zero

Stop: to stop all current commands and mechanical movements

Clean: enter “Resin vat clean” page
3.4.3  Move Z axis page

Move Z(printing plate) with different distance by manual

①: Unselected value unit of stepping travel
②: Unselected value unit of stepping travel
③: Reset the platform to default height you set.
④: Move Z up, Z axis will move up the current value unit you choose.
⑤: Move Z down, Z axis will move down the current value unit you choose.
⑥: Stop: click to stop the Z moving

3.4.4  Exposure page

Tag ①: Exposure image, exposure image in test state
Tag ②: Status info, remind user the printer is current in the exposure test status.
3.4.5 Clean exposure time setting page

Exposure time setting for clean the resin vat

Tag ①: exposure time, is an integer, unit second and default setting is 200s, click to enter “parameter input” page.

Tag ②: increase “exposure time”, add one second every click.

Tag ③: decrease “exposure time”, cut one second every click.

Tag ④: Next button, click will save the current setting and enter exposure page.

3.4.6 Clean page

Tag ①: Clean image, exposure image in vat clean state.

Tag ②: Status info, remind user the printer is current in the vat clean exposure status.
3.4.7  File list page

list the file and folders from local or U disk

Tag ①: Back to upper page, click to exit the current folder and return to upper page.

Tag ②: Enter to new folder, click to enter the folder.

Tag ③: Model or files, click to enter “file info” page.

Tag ④: Last page, click to flash the current list and show the previous first four files or folders.

Tag ⑤: Next page, click to flash the current list and show the first four files or folders.

3.4.8  File info page

Display the detailed information of the file, you can delete, print the file in this page.

Tag ①: File name and file format;

Tag ②: Preview image, to display the file as 3D image or other forms;

Tag ③: Delete file, click to choose if delete the file;

Tag ④: Start printing, click to print the file;
3.4.9  Printing process page

Display the detailed information during printing, include slicing images, layers, printing time etc, at the same time you can pause, stop or enter setting page.

Tag ①:  Slicing image currently printed;
Tag ②:  File name currently printed;
Tag ③:  Print time remaining, the time needed to finish printing, it is better to check after bottom layers finished.
Tag ④:  Printed time, the time from you start printing.
Tag ⑤:  The number of slicing layers, former are layers has printed, the latter is total layers volume.
Tag ⑥:  Stop printing, click to stop the printing
Tag ⑦:  pause/resume printing.

ció click the button will pause the current print

Click the button will resume print from the last layer.

Tag ⑧:  Click to enter “printing setting” page.

---

Notification:
When click “stop”or”pause” button, if it is in exposure status, the printer will pause/stop after this layer finished, then Z axis will up to setting height.
3.4.10 Printing setting

Display the core parameter in this printing file, such as bottom layers; exposure time etc.
Bottom layers: the bottom layers during the printing process, click to enter “parameter input” page.
Bottom exposure time: the bottom layer exposure time during the printing, click to enter “parameter input” page.
Exposure time: the exposure time during the printing, click to enter “parameter input” page.
Light-off delay: The Light-off delay is the time during LED light off from the last layer to the next layer, this setting is for extra preparing time before the next layer start exposure, click to enter “parameter input” page.

![Bottom Layer Count: 5 Bottom Exposure time (s): 35.000 Exposure time (s): 2.750 Light-off Delay (s): 0.000](image)

3.4.11 Parameter input page

Adjust and save the current parameter setting.

Tag ①: Current parameter
Tag ②: Keyboard input area
Tag ③: Delete parameter, delete one value from right to left per click
Tag ④: Save parameter, click to save the current setting and back to the last page.
3.4.12 System page

Include all the function except core function. Such as system info, after sale etc.

Information page: Click to enter “information” page

Network: click to enter “Network” page

Service: click to enter “Service” page

Language: click to “language” page

Calibration: click to “calibration” page

3.4.13 Information page

Display the key information of board.

Tag ①: The series and model number of this controller board.

Tag ②: The serial number of this board.

Tag ③: The firmware name and version of this board.

Tag ④: Beep on/off, 🎶 means beep on status, 🔊 means beep off status.
3.4.14 Service page

The official after sale and tech support information.

Website:  www.cbd-3d.com
Business:  sales@cbd-3d.com
Telephone: +86-0755-23103569
3.5 Function guider

3.5.1 Read U disk

A) Insert U disk

Insert the U disk include printing file into the printer.

B) Click “Print”

Click the “Print” button on the main page, enter “file list” page.

C) Check U disk file list

On this page, you can view the list of files and folders in the current U disk.

To get the stable and better quality, please use the U disk from genuine manufacture.
When you have not inserted a USB flash drive, this page displays a blank list.
3.5.2 Model preview

A) Click "Print"

Click the "Print" button on the main page, enter "file list" page.

B) Choose model file

Choose one of the models with the file format can be previewed, enter "file info" page.

Note: the file can’t be previewed if the format not support preview.

C) Enter "File info" page
3.5.3 Delete file

A) Click “Print”

Click the “Print” button on the main page, enter “file list” page.

B) Choose model file

In this page, you can choose the file you want to delete.

C) Choose model file

Choose the file you want to delete.
D) Click “delete” button

In this page, you can click the trash can in the right side, there will be a box to confirm if delete or not.

![Image of a trash can icon]

E) Click “Confirm”

Click “Confirm”, the file will be deleted

Click “Cancel” , the box will be closed.

![Image of a confirmation dialog box]
3.5.4  Local printing method

Flow of local printing:

A)  Click “Print”

Click the “Print” button on the main page, enter “file list” page.

B)  Enter “File list” page

In this page, you can choose the file you want to print.
C) Choose a model file

Choose a model file you want to print.

D) Enter “File info” page

In this page you can preview the 3D file.

Note: the file can’t be previewed if the format not support preview.

E) Click “Print” button

Click the play button in the right side, then start printing.
3.5.5 Printing control (Pause/Resume/Stop)

A) Pause printing

In “Printing process” page, click the button in the right side, printing will pause, and Z axis will move up to default setting height.

B) Resume printing

In “Printing process” page, click the button in the right side, printing will start again from the last layer to finish the print file.
C) Stop printing

In “Printing process” page, click the button in the right side, there will be a box to confirm if stop or not.

Click “Cancel”, the printing will continue.

Click “Confirm”, the printing will stop and exit the page.

---

Notification:
When click “stop” or “pause” button, if it is in exposure status, the printer will pause/stop after this layer finished, then Z axis will up to setting height.
3.5.6 Network printing

Flow of network printing:

A) Open CHITUBOX software
Open the CHITUBOX in your PC or laptop.

B) Import STL file
Open file or drag the file to CHITUBOX.

Detailed steps for network printing:

A) Open CHITUBOX software
Open the CHITUBOX in your PC or laptop.

B) Import STL file
Open file or drag the file to CHITUBOX.
C) Settings

Click “Settings”, make sure use the “default” mode.

D) Click “Slice”

After settings, click “Slice” and wait the slicing process to complete.

E) Click “Network sending”

After slicing, click “Network sending” in the right side.
F) Send file

In “Network sending” box, click “Printer name” list, select the printer or board that connected to the LAN, click , the file will send to the printer.
3.5.7 Printing setting

Flow of printing setting:

A) “Printing process” page

The printing setting can only edit when the file is printing.

B) Click “Printing setting” button

In “printing process” page, click the button in the right side to enter “printing setting”.

Detailed steps for printing setting:

A) “Printing process” page

The printing setting can only edit when the file is printing.

B) Click “Printing setting” button

In “printing process” page, click the button in the right side to enter “printing setting”.
C) Enter “Printing setting” page

For now, you can edit 4 parameters, bottom layer count, bottom exposure time, exposure time and light-off delay.

![Parameter settings](image)

D) Choose the parameter to set.

Click the parameter, enter the “Parameter input page”

![Parameter input page](image)

E) Enter “Parameter input page”
F) Keyboard input area

Input the number value on keyboard input area

G) Click "Save" button

After input, click button in the right side to save.
3.5.8 Resin tank clean

Flow of resin tank cleaning:

A) Click “Tool” button

Click the “Tool” button on the main page

B) Click “Clean” button

Click “Tool” button, enter “Clean exposure time setting” page.

Detailed steps for resin tank cleaning:
C) Set exposure time parameter

In this page, you can adjust the time by button, or click “Parameter input” page to input by manual.

D) Click “Next”

After input the parameter, click “Next” to enter “Exposure process” page.

E) Enter “Clean process” page

Wait for the process to complete.
3.5.9 Exposure test

Flow of exposure testing:

A) Click “Tool” button

Click the “Tool” button on the main page.

B) Click “Exposure” button

Click “Exposure” button, enter the “Exposure” page.

Detailed steps for exposure testing:

A) Click “Tool” button

Click the “Tool” button on the main page.

B) Click “Exposure” button, enter the “Exposure” page.
C) Set exposure time parameter

In this page, you can adjust the time by ↑ or ↓ button, or click “Parameter input” page to input by manual.

D) Click “Next”

After input the parameter, click “Next” to enter “Exposure test process” page.

E) Enter “Exposure test process” page

Wait for the test process to complete.
3.5.10  Z platform reset

A) Click “Tool” button

Click the “Tool” button on the main page.

B) Enter “Tool” page

C) Click “Manual” button

Click “Manual” button to enter the “Manual” page.
D) Click “Home” button

Click button, the Z platform will automatically move to the default height.
3.5.11 Control the Z platform

Flow of controlling the Z platform:

Click “Tool” button → “Tool” page → Click “Manual” button → “Manual” page → Click “Up/Down” → Select unit item

Detailed steps for controlling the Z platform:

A) Click “Tool” button
   
   Click the “Tool” button on the main page

B) Click “Manual” button
   
   Click “Manual” button to enter “Manual” page.
C) Enter “Manual” page

D) Set stepper value

Set the stepper value for up or down.

E) Click “Up” or “Down” button

Click on the button, Z axis will move Up/down the current value unit you choose.
3.5.12 Language Switch

Flow of language switching:

A) Click “System” button

Click “System” button in the main page.

B) Enter “System” page

Detailed steps for language switching:
C) Click "Language" button

Click "Language" button, there will be a "Language switched" box.

D) Click "Confirm" button

语言已经切换为中文。
3.5.13 Beep on/off

Flow of turning on/off the beep:

A) Click “System” button

Click “System” button on the main page.

B) Enter “System” page

C) Click “Info” button
D) Enter “Info” page

![ChiTu L 5.5 V3 Series]

**ID**: xxxxxxxxxxxxxxxxxxxxxxx

****: xxxxxxxxxxxxxxxxx

E) Click “Beep” button

- 🎶 means beep on status, click to switch to 🎬, The system will enter the sound off mode.
- 🎬 means beep off status, click to switch to 🎶, The system will enter the sound on mode.
3.5.14 **Information**

A) Click “System” button

Click “System” button on the main page.

B) Click “Info” button

Click “Info” button on the System page.

C) Enter “Info” page

This page you can the key information of board. The series and model number of this controller board.

- **ID**: XXXXXXXXXXXXXXXXX
- **Serial**: XXXXXXXXXXXXXXXX

**ChiTu L 5.5 V3 Series**
3.5.15 Service

A) Click “System” button

B) Click “Service” button

Enter “System” page, click “Service” button

C) Enter “Service” page

The official after sale and tech support information.

Website: www.cbd-3d.com
Business: sales@cbd-3d.com
Telephone: +86-0755-23103569
4.1 Contact Us & After sale

After-sales consultation:

<table>
<thead>
<tr>
<th>Market Information</th>
<th>Technical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address</strong></td>
<td>Room 409, Block A, Huafeng Smart Innovation Port, Gushu 2nd Road, Xixiang Street, Baoan District, Shenzhen</td>
</tr>
<tr>
<td><strong>Tel</strong> : (+86) 0755-23103569</td>
<td>Official website : <a href="http://www.cbd-3d.com">www.cbd-3d.com</a></td>
</tr>
<tr>
<td><strong>E-mail</strong> : <a href="mailto:sales@cbd-3d.com">sales@cbd-3d.com</a></td>
<td>E-mail : <a href="mailto:support@cbd-3d.com">support@cbd-3d.com</a></td>
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</table>

Contact us:

**Official Facebook**

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<tr>
<th>Channel</th>
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**Official Facebook Group**

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**Official Twitter**

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**Official Instagram**

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**Official Youtube**

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