Manuals+ — User Manuals Simplified.

ELEGOO ORANGESTORM FDM 3D Printer User Manual

ELEGOO ORANGESTORM FDM 3D Printer

Contents

TAYYEB POST

## Machine Setup & Installation

1. **X/Y-axis Assembly Installation:** Use (PM6*28) 8pcs screws & (SW M6) 8pcs to sequentially install the support plates on the left and right sides. Pass the screws through the corresponding holes on the support plates and secure them during installation. (Diagram 8)
2. **Z-axis Caterpillar Cable Track Installation:** Use (PM4*25) 2pcs screws to pass through the corresponding holes and secure the caterpillar cable track components onto the X & Y assembly profiles.
3. **Z-axis Caterpillar Cable Track Clip Installation:** Use (PM3*6) 2pcs screws to secure the middle position of the caterpillar cable track. (Diagram 10)
4. **End fixation of Caterpillar Cable Track:** Use (PM3*6) 3pcs screws to install and secure them through the corresponding holes on the profiles. (Diagram 11)
5. **Z-axis Right End-stop Installation:** Use (PM3*6) 2pcs screws to install and secure them through the corresponding holes on the profiles. (Diagram 12)
6. **Z-axis Left End-stop Installation:** Use (PM3*6) 2pcs screws to install and secure them through the corresponding holes on the profiles. (Diagram 12)

(Diagram 7)

(Diagram 8)

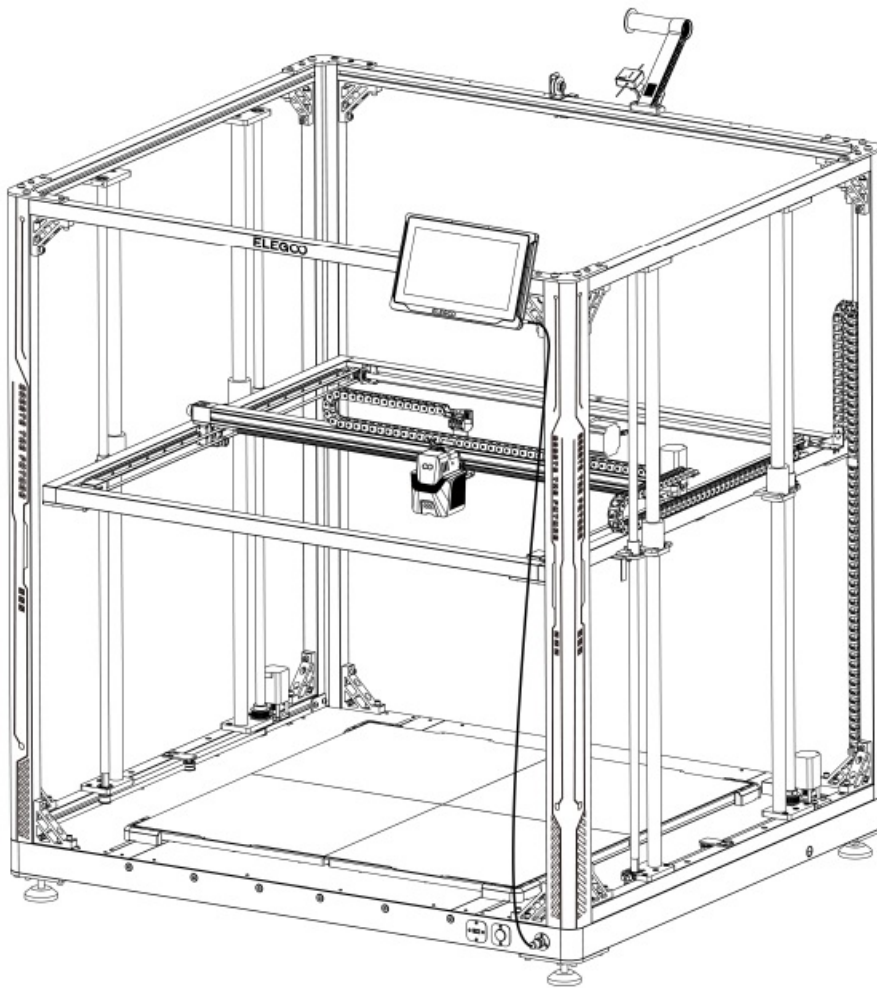(Diagram 9)

(Diagram 10)

(Diagram 11)
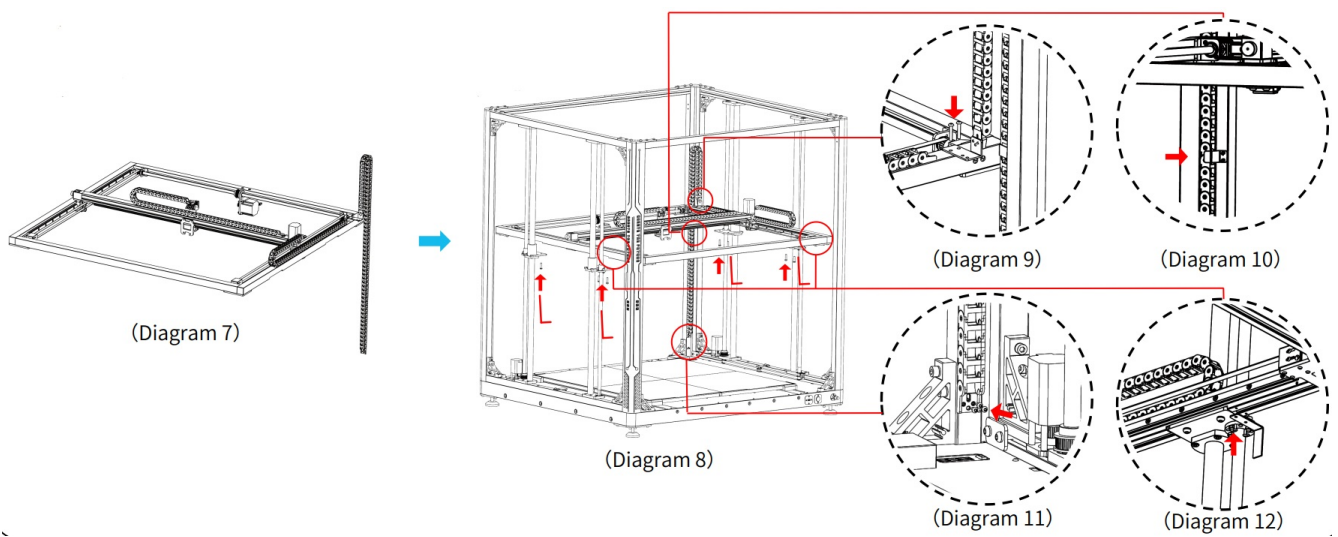
(Diagram 12)

7. **Printhead Installation:** Use (HM3*8) 2pcs to secure the front holes of the printhead (Diagram 14) and use (HM3*10) 2pcs to secure the rear holes of the printhead (Diagram15)
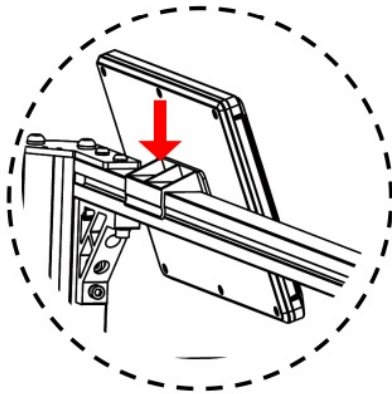

(Diagram 13)

(Diagram 14)

(Diagram 15)

● Secure the printhead by aligning the height of the mounting plate.
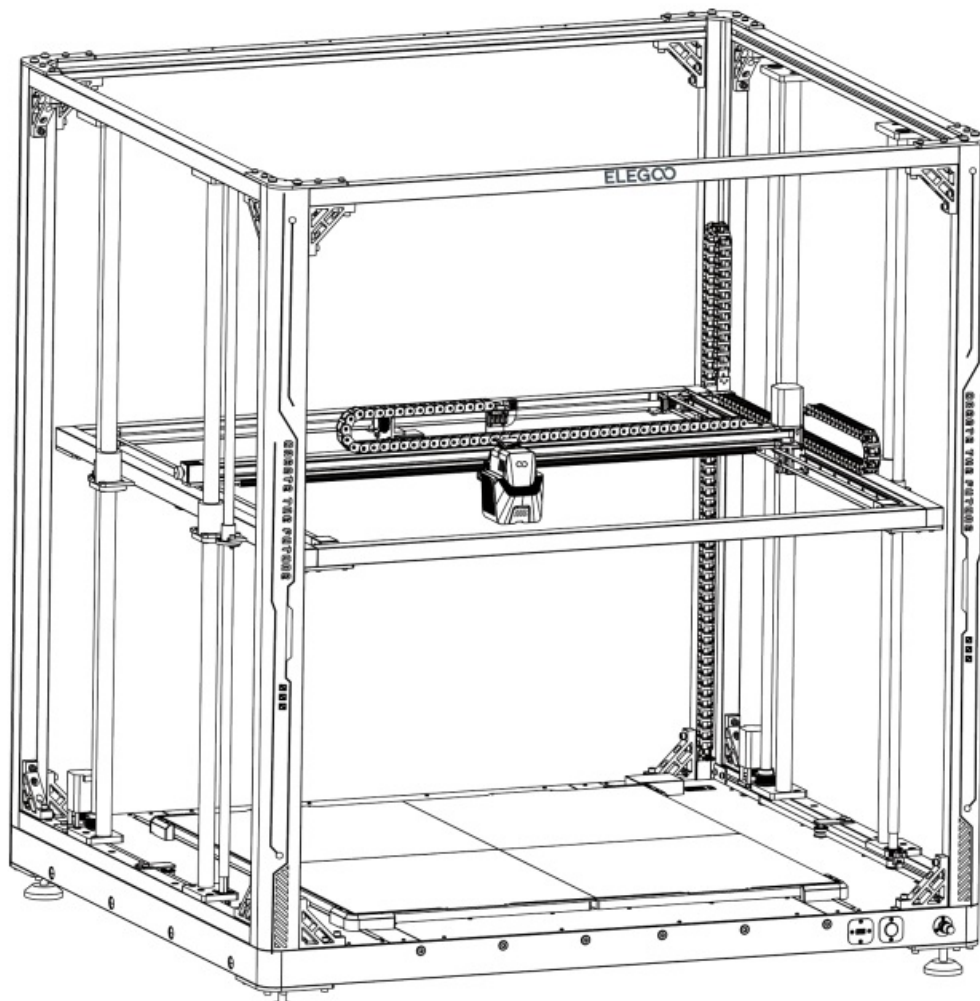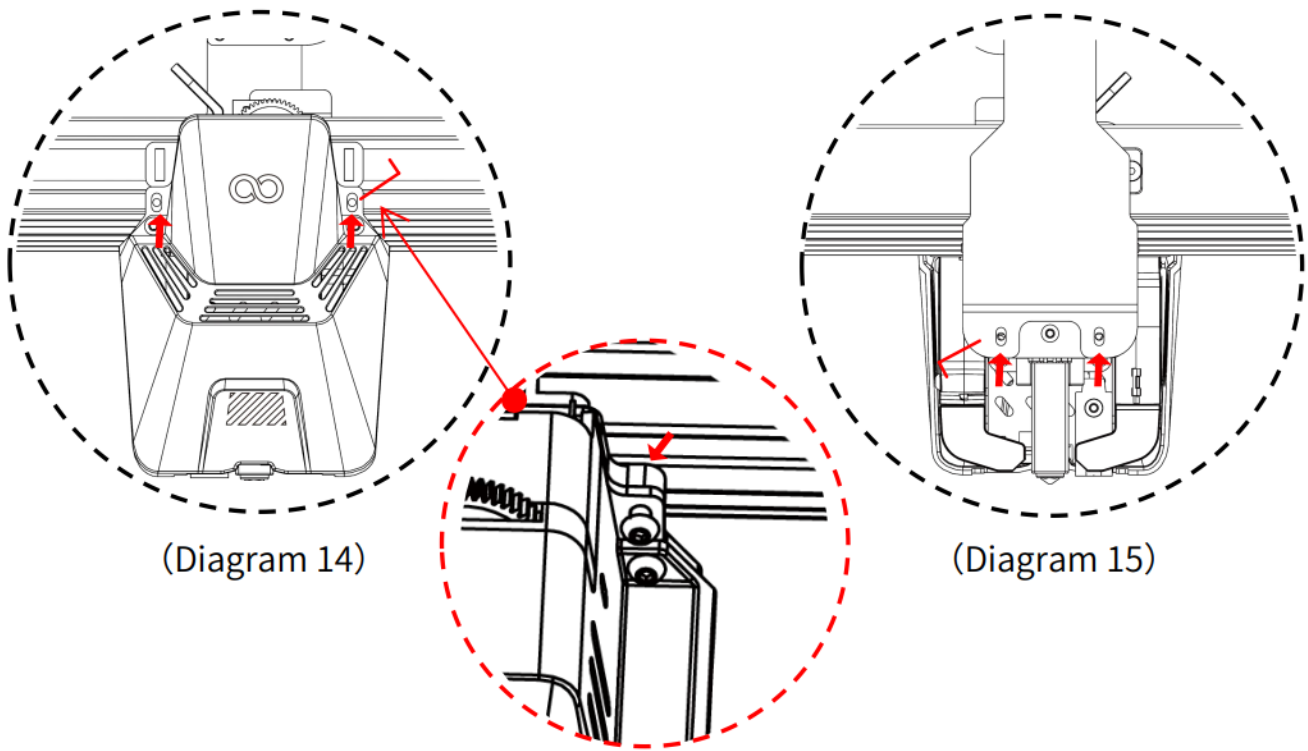
8. **Screen Installation:** The snap-in fastener can be installed onto the profile when it makes a clicking sound. (Diagram 17)

9. **Filament Guide Assembly Installation:** Use (HM4*φ5*3) 1pc & (FW M5)1pc screw to install it into the corresponding hole of the top rear profile. (Diagram 18)

10. **Spool Holder Assembly & Filament Detector Installation:** Use (PM4*25) 2pcs screws to secure the spool holder assembly onto the profile Use **(HM4*M3*3)** 1pc screw to install the filament detector onto the spool holder assembly. (Diagram 19)

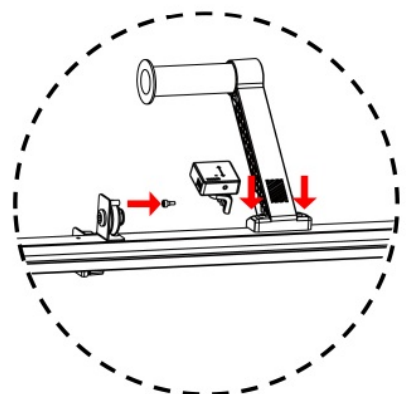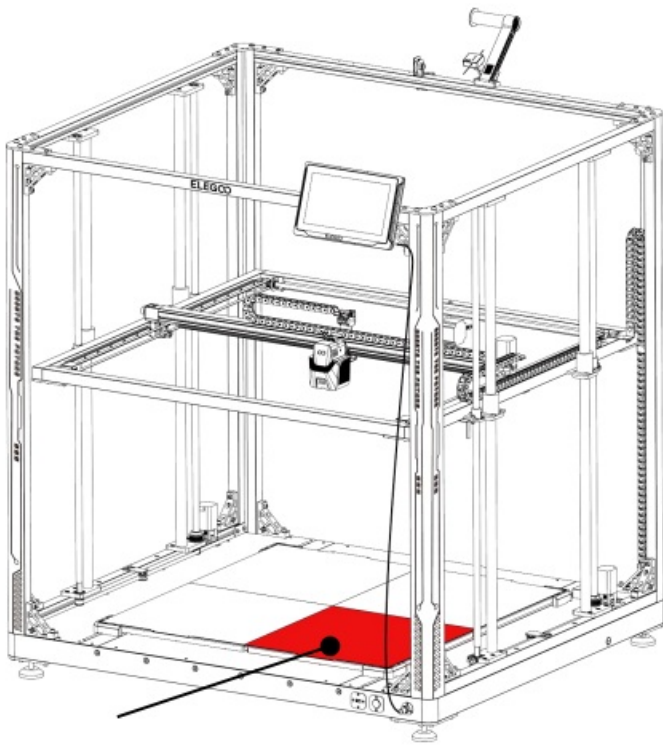(Diagram 16)

(Diagram 17)
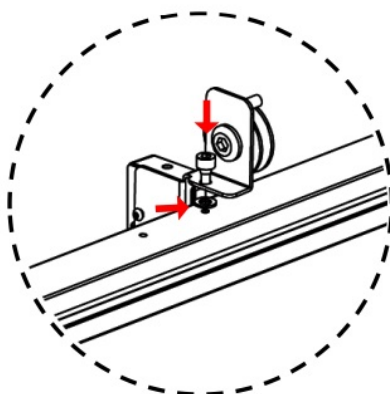
(Diagram 18)

(Diagram 19)

11. Port Wiring: Connect the corresponding ports according to the instructions. (Diagram 20)

12. Input Voltage Confirmation: The machine is factory-set to operate on a default power supply voltage of 220V. Before use, please verify that the machine's voltage setting matches the local voltage in your area before powering on the machine.

There are DIP switches on both sides of the machine 115V / 230V , please adjust the voltage to match the local voltage before first use.

Leveling Procedure

When first running the machine, the distance between the platform and the nozzle needs to be calibrated in the leveling mode, which is about the thickness of a piece of A4 paper .

- When the printer is powered on, select [Level].
- Each axis of the printer automatically returns to the home position, after entering the leveling page, Then select the automatic leveling option from the menu and your printer will begin the automatic calibration process. [ ]
- Your printer will enter a heating state during the automatic calibration process as the nozzle is heated to 140ºC and the heated bed to 60ºC
- After reaching the preset temperature, begin the 100-point automatic bed calibration.
- When completed, perform Z-axis compensation setting: Place a leveling card between the printhead and the platform. Adjust the compensation value by clicking, and gently slide the leveling card. When there is resistance while moving the leveling card, the leveling is complete.

- Click the save icon to save. [ ]

The center screw on this surface serves as the reference point, and its height cannot be adjusted. The other three surfaces are adjusted to a relative height based on this surface.

If there is a significant height difference between the platforms, you can manually calibrate the platform plate.

1. First, replace the two PEI plates in the front section with the leveling plate. The holes on the leveling plate should align with each screw hole on the heated bed plate.
2. Then navigate to "Settings", "Advanced Settings", and finally choose "Platform Measurement."
3. Next, click on "Auto Measurement" and wait for the printhead to measure the data of the 18 points on the platform one by one. **(NOTE:** Do not for many other operations during the measurement process)
4. Based on the presented 18-point data, manually adjust the screw height for points higher or lower than [0.00]. Then, you can verify the adjusted values by manually selecting the corresponding position number. Position 5 is the reference point [0.00] and does not require adjusting the screw. Adjust there maiming 35 points using the knob screws to approach the [0.00] data.)
   NOTE: Turning the knob screw clockwise by one turn will lower the platform by 0.7mm, otherwise it will raise by 0.7mm.
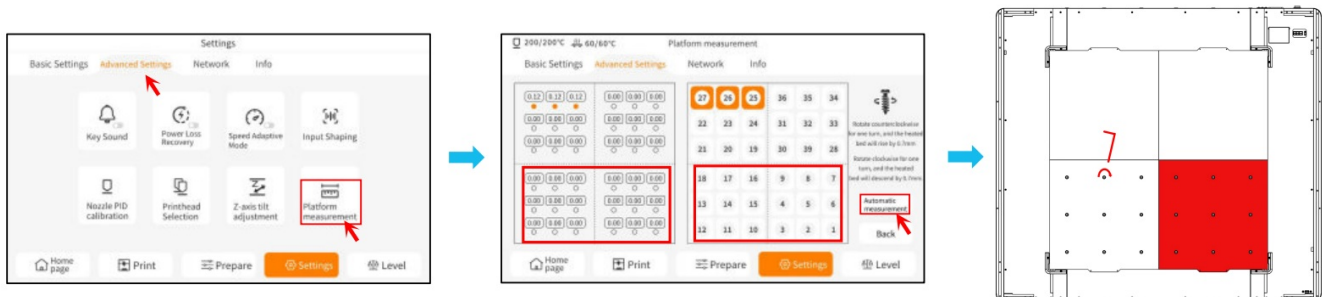
5. Swap the two leveling plates in the front section with the two PEI plates in the back section.
6. Click [Continue measuring] and wait for the printhead to sequentially measure the 18-point values on the leveling plates. **NOTE:** Do not perform any other operations during the measurement process
7. Perform manual adjustment based on the presented numbers and adjust the 18-point values to be close to [0.00].
8. After manually adjusting the relative height of the four platform plates, place the PEI plate and click on "Level." Wait for the printhead to return to the home, then click on "Auto Leveling" to collect data from 100 points. Once

completed, place the leveling card between the nozzle and the platform and set the compensation value. When there is resistance while moving the leveling card, the setup is complete. Click on **"Save Data"** to exit.
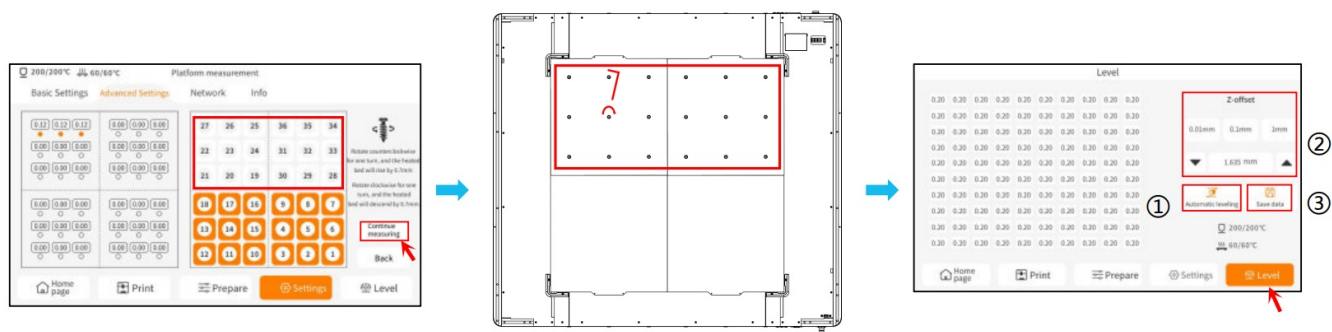
Model Testing

Printing Functional Test

1. Insert the USB Drive into the printer's USB port.
2. Choose [Print] from the main menu and select the desired file.
3. When the nozzle and heated bed reach the target temperatures, the X, Y & Z axis will return to home and begin printing.
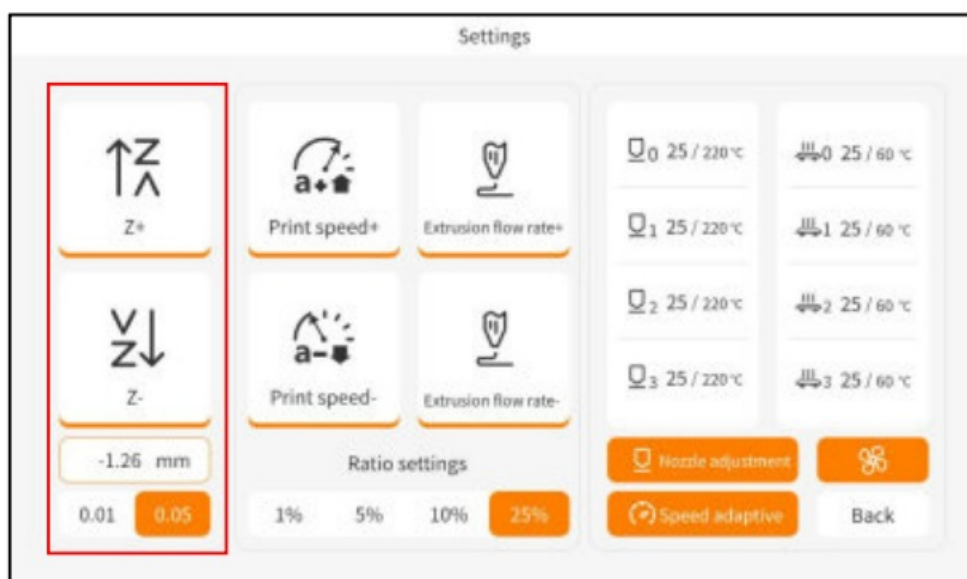
While adjusting, switch the travel distance to 0.01mm or 0.05mm for fine tuning to prevent the nozzle from potentially dragging excessively along the heated bed (which can cause damage to the build plate) or to keep filament from **"hanging"** in the air.

Note: Filament with different hardness have different requirements for "spring" strength. The spring strength of the extruder can be adjusted with an Allen Wrench (within 2.0mm).

When turning counter-clockwise, extrusion force is increased, while extrusion force is decreased when turned in a clockwise direction.

A. Too Low

B. Too High

C. Normal

NOTE: When printing the test model, please observe the first layer printing and compare against the figure on the above. In cases A and B, the compensation settings are not properly adjusted. You can make compensation adjustments during printing to adjust the distance between the nozzle and the heated bed. In case C, the nozzle and the platform are at the ideal printing distance and can continue printing without any further adjustments.
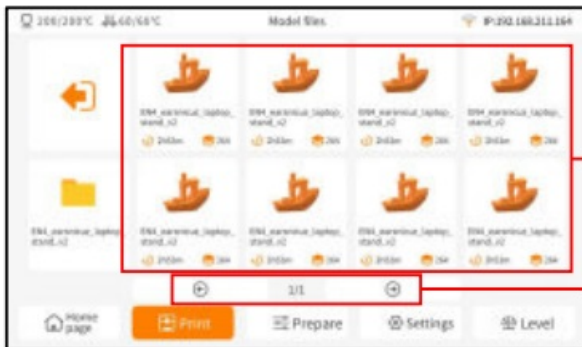
Touch Screen Operation Introduction

Note: Please be aware that the current interface is for reference purposes only. The actual information is subject to the latest firmware on the official website.

IP Address

Temperature Display

G-code File Display

Left & Right Page Keys

Motor Movement & Return to Home Control

Preset Filament Temp
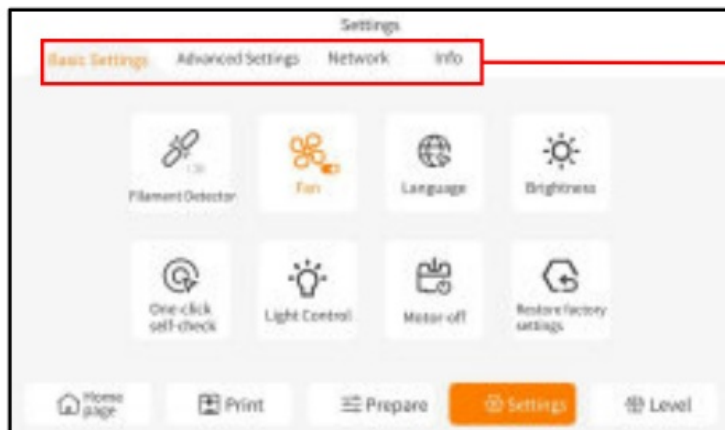
Settings Option

100-point Leveling Display

Compensation Settings

Temperature Display

Software Installation

TIP: We recommend copying the entire contents of the included USB Drive to your local computer for easier access to all of its files. The included "Slicer" Software program is a modified version of the Cura Open Source Slicer software to better cooperate with our machines.

Software Installation Procedure:

1. Open the attached USB Drive and navigate into the path: \Software and Software Drivers folder \ELEGOO Software folder and "double-click on the ELEGOO-Cura application to begin the installation process.
2. Continue by following the prompts in the installation process specific to your system.
3. Finally, select the corresponding ELEGOO printer model as shown below to complete the settings process.

Instructions for Software Usage

Preview Image Function

② Language Selection
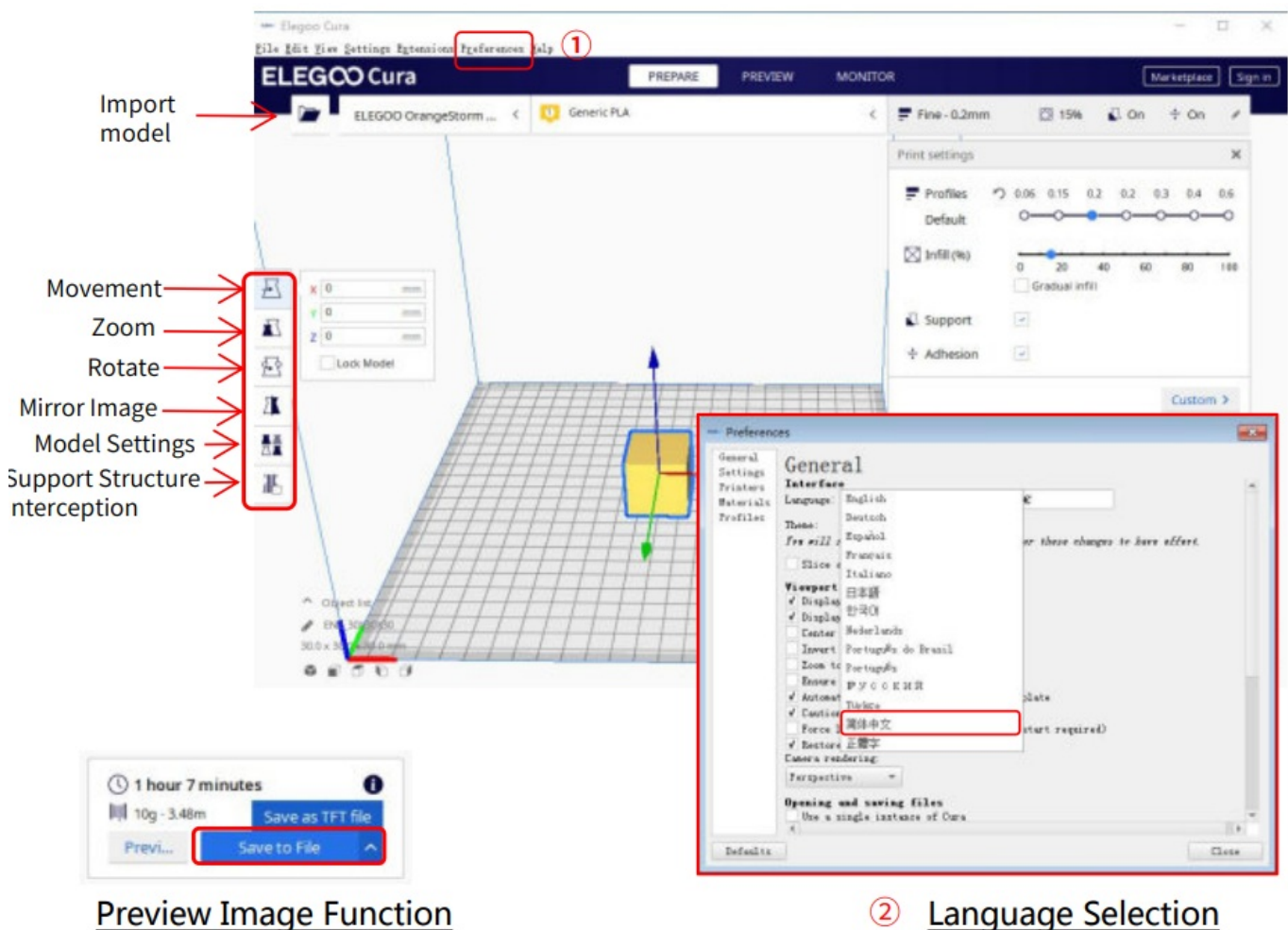
Other Software Usage Tips:

1. Use the middle mouse wheel to zoom the viewpoint (in and out) and hold down the middle mouse wheel to move the platform position on the screen.
2. Press and hold the right mouse button while moving your mouse to pivot around your model's viewpoint.
3. Clicking the right mouse button will bring up a pop-up selection options menu.

Model Settings

When printing multiple models, you can configure individual slice settings for the specified model.
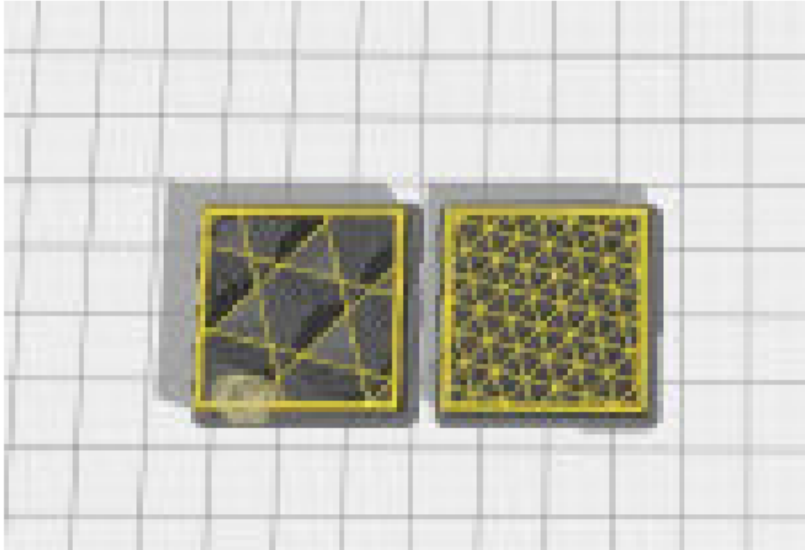
Support Structure Interception

This feature enables you to define an intercept region on your model to inhibit the generation support material.

Preview Image Function:

G-code files saved in the TFT file format can use the printer's preview capabilities to display a thumbnail image of the model.

Language Selection:

You can change the language by accessing the Preferences in the top menu bar. Once you have selected the desired language, you will need to restart the slicing software to apply the changes.

LAN(Network) Printing

he device supports WiFi and network cable connection. After the connection is successful, check the IP address on the screen, and enter the IP address through the browser to access the machine.

NOTE: Your Printer and Your Local Computer can only be connected to the LAN (Network) over the same network segment. You should ensure that the network wiring port on the Printer is connected, otherwise the access will fail. Using Google Chrome (on your local computer), you can enter the IP address listed on your printer's display screen to access the printer directly (eg. **http://192.168.211.164)**. Following entry of this address, press the "Enter" key to access the Printer's network page.
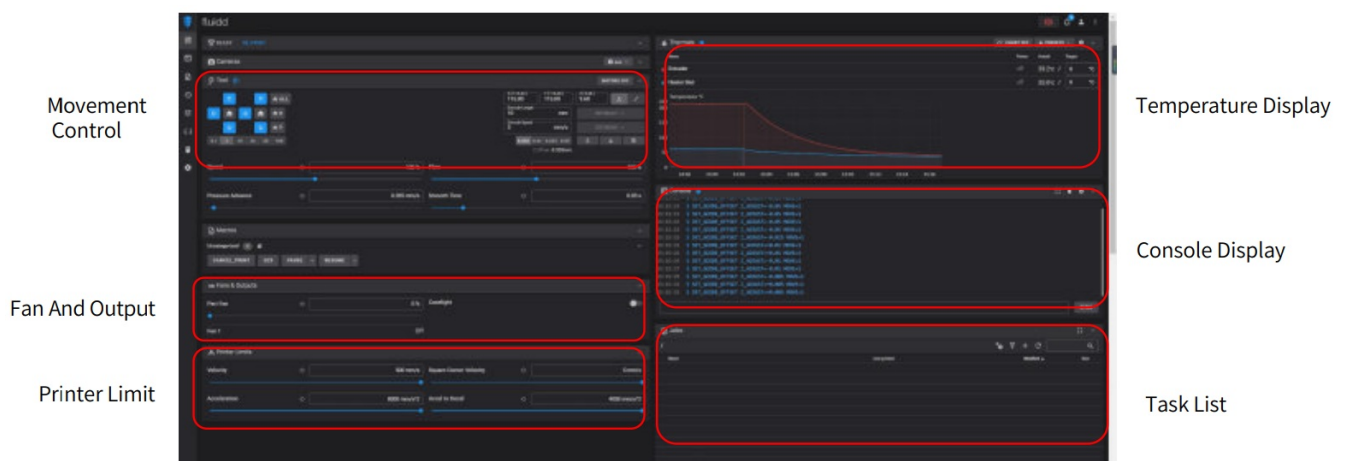
LAN(Network) Interface
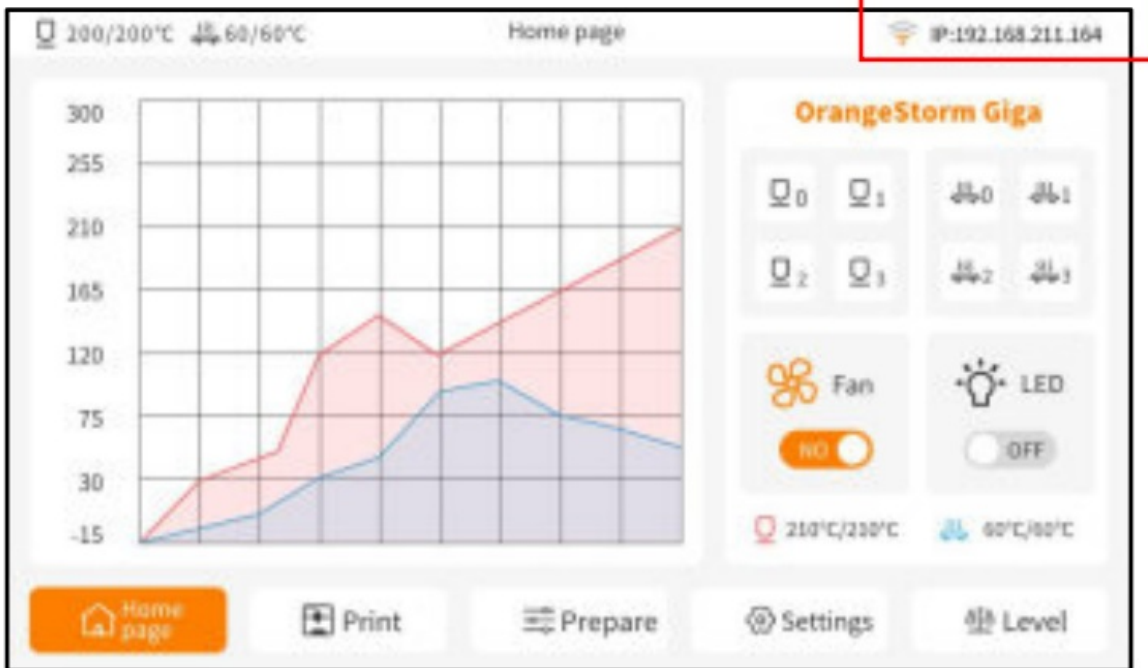
WiFi Connection
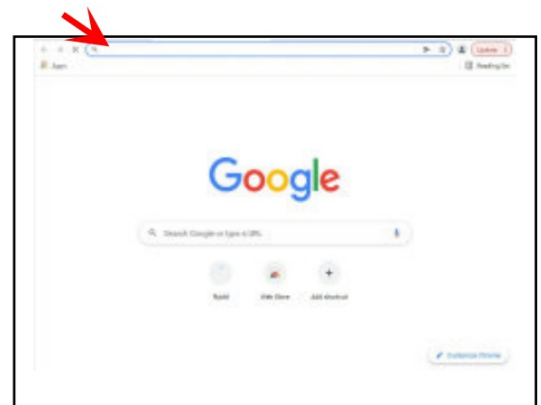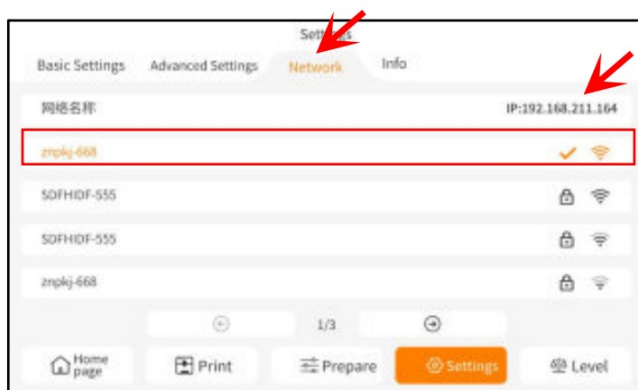
- Upon the successful access of the Printer's Network Interface, you will be presented with the following interface.

Movement Control: Provides the ability to control the movement of the printer's printhead along each axis, and can set compensation following the leveling process.

**Fan and Output:** Provides the ability to control the printhead fan and LED lights (on/off).

Printer Limit: Sets the maximum acceleration control of the printer, normally there's no need to modify.

Temperature Display: Displays the Printer's temperature(s) and heating status. This also provides controls for the preheating of the printhead temperature as well as the heated bed temperature.

Console Display: Shows G-code commands executed and allows for manual G-code to be sent to printer.
Task List: You can drag the G-code file of the ELEGOO Cura slicer to the task list here for printing.
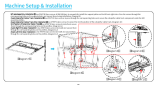
Mainboard Circuit Wiring Diagram
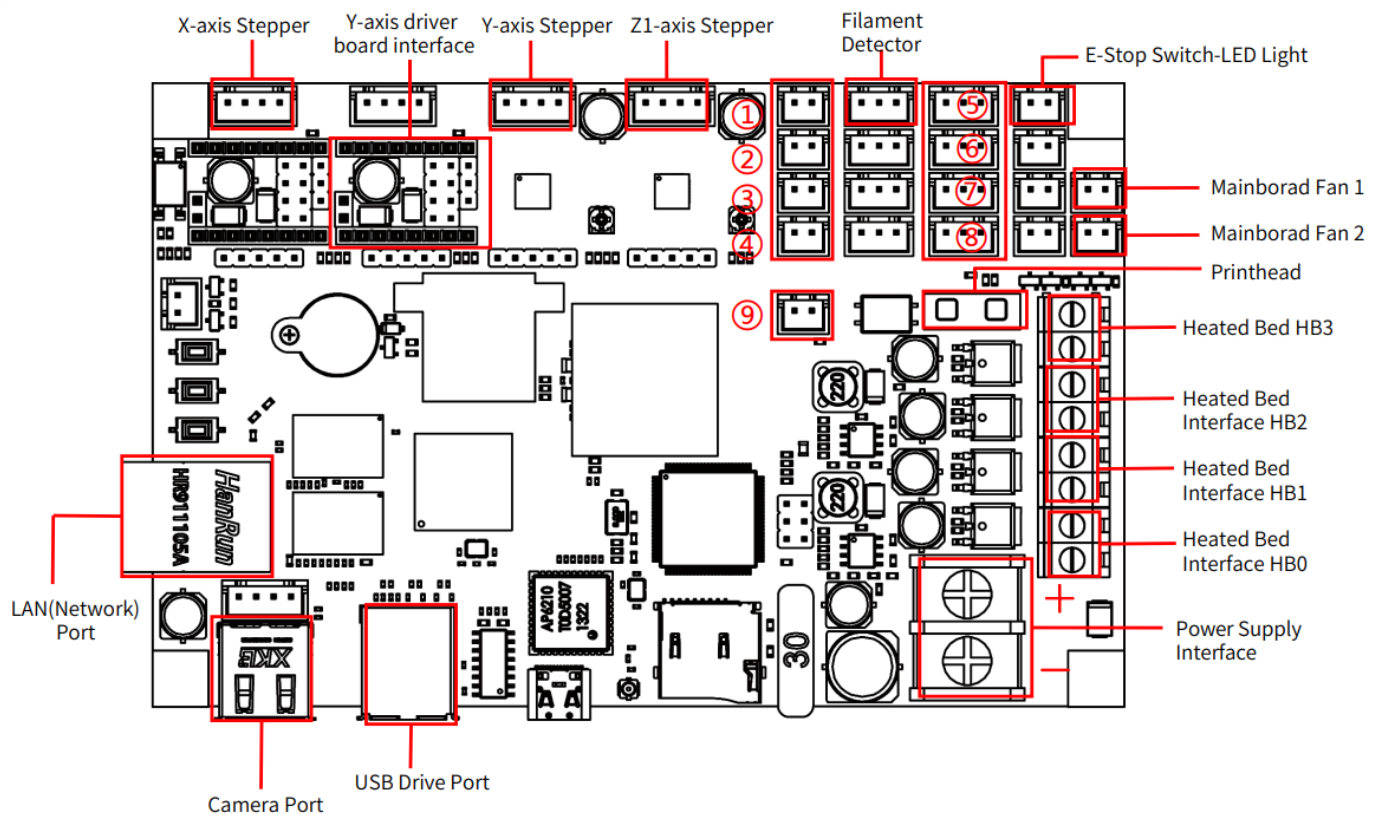
1. Heated Bed Thermistor TB0
2. Heated Bed Thermistor TB1
3. Heated Bed Thermistor TB2
4. Heated Bed Thermistor TB3
5. X-axis Limit Switch
6. Y-axis Limit Switch
7. Z-axis Left Limit Switch
8. Z-axis Right Limit Switch
9. E-Stop Button-Reset Port
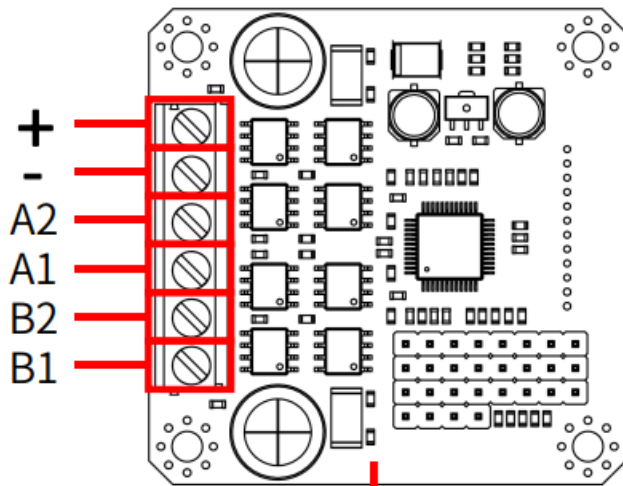
Y-axis driver board

Documents / Resources

	ELEGOO ORANGESTORM FDM 3D Printer [pdf] User Manual ORANGESTORM FDM 3D Printer, ORANGESTORM, FDM 3D Printer, 3D Printer, Printer

References

- **User Manual**