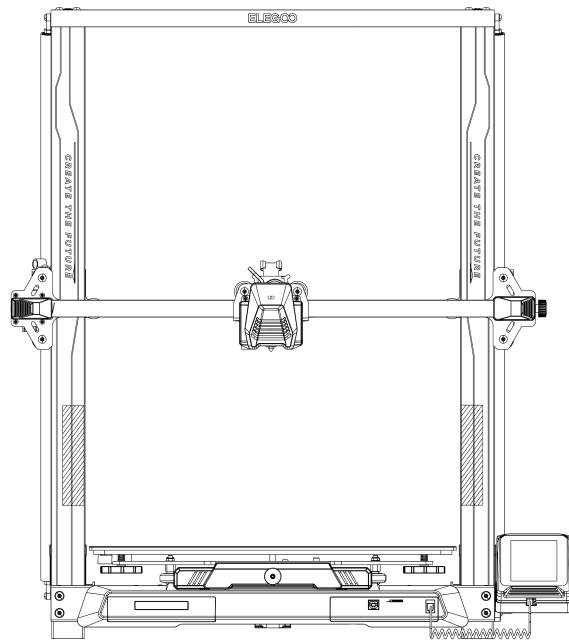
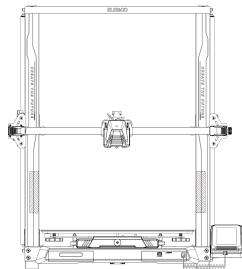


User Manual for NEPTUNE 3 MAX 3D Printer



Pictures are only for illustration purpose, please take actual product as standard.



Thank you for choosing ELEGOO product!

For your convenience, please read this instruction manual carefully before use, the cautions and tips in this manual can help you better avoid incorrect installation and use.

For questions or problems not covered in this manual, please contact us at this email address:
3dp@elegoo.com.

ELEGOO team is always ready to provide you with quality service.

To give you a better experience of our products, you can also gain knowledge of the operation of the equipment in the following ways:

- 1.The instruction manual: You can find the relevant operating instructions and videos on how to operate the machine in the TF Card.
- 2.ELEGOO official website: www.elegoo.com You can go to our official website to find the relevant operating instructions for the machine and contact information.

Cautions

1. Do not place the printer in vibrating or other unstable environments, as the shaking of the machine will affect the print quality.
2. Do not touch the nozzle and heatbed when the printer is working to prevent high-temperature scald and personal injury.
3. After printing, please take advantage of the residual temperature of the nozzle and clean the filaments on the nozzle with the help of tools. Do not touch the nozzle directly with your hands during cleaning to avoid scald.
4. Please do product maintenance frequently, and regularly clean the printer body with a dry cloth to wipe away dust and sticky print material under the situation of power off.
5. 3D printers contain high-speed moving parts, so be careful not to get your hands caught.
6. Children must be supervised by adults when using the machine to avoid personal injury.
7. In case of emergency, please cut off the power directly.

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Machine Parameters

Print Parameters

Print Principle: FDM (Fused Deposition Modeling)

Build Size: 420X420X500(mm³)

Print Precision: ± 0.1 mm

Nozzle Diameter: 0.4mm

Print Speed: 30~180mm/s (60mm/s is recommended)

Temperature Parameters

Ambient Environment Temperature: 5°C~40°C

Maximum Temperature of Nozzle: 260°C

Maximum Temperature of Hotbed: 100°C

Software Parameters

Slicer Software: Cura

Input Format: STL、OBJ

Output Format: Gcode

Connection Type: TF Card、USB Wire

Power Supply Parameters

Power Input: 100-240V 50/60Hz

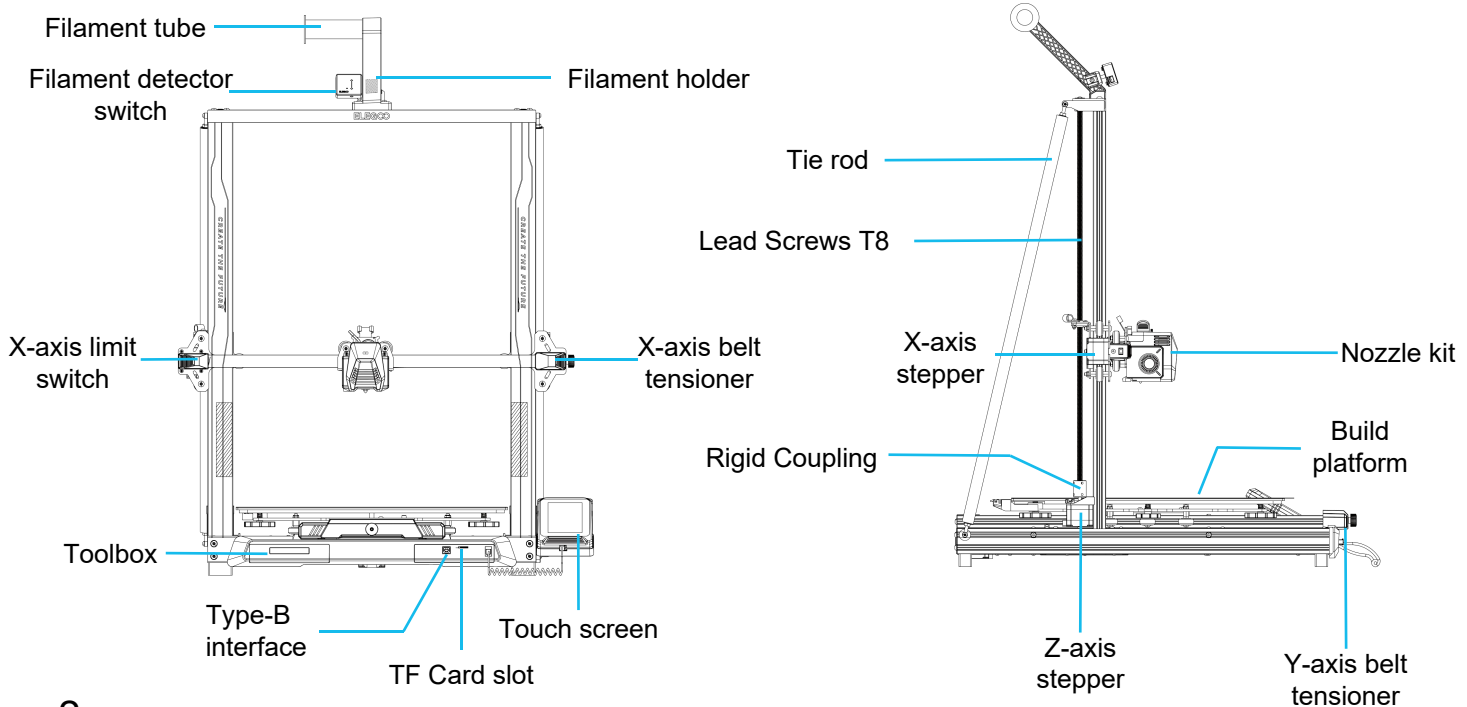
Power Output: 24V

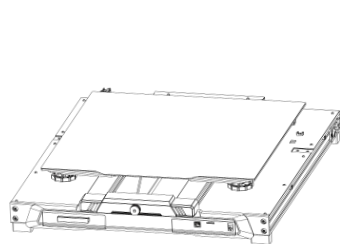
Physical Parameters

Machine Size: 658*632*740mm

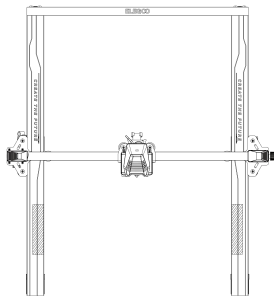
Net Weight: 17.7kg

Machine Structure Diagram





01



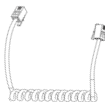
02



03



04



05



06



07



08



09



10

Packing List

Fasteners



(HM5*45) 4pcs



(PM4*20) 5pcs



(PM4*18) 2pcs



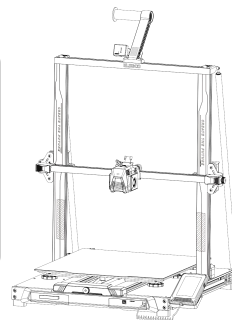
(PM4*8) 3pcs



(HM4*M3*3) 1pcs



(FW M5*18*1) 2pcs



ELEGOO 3D Printer

Tools

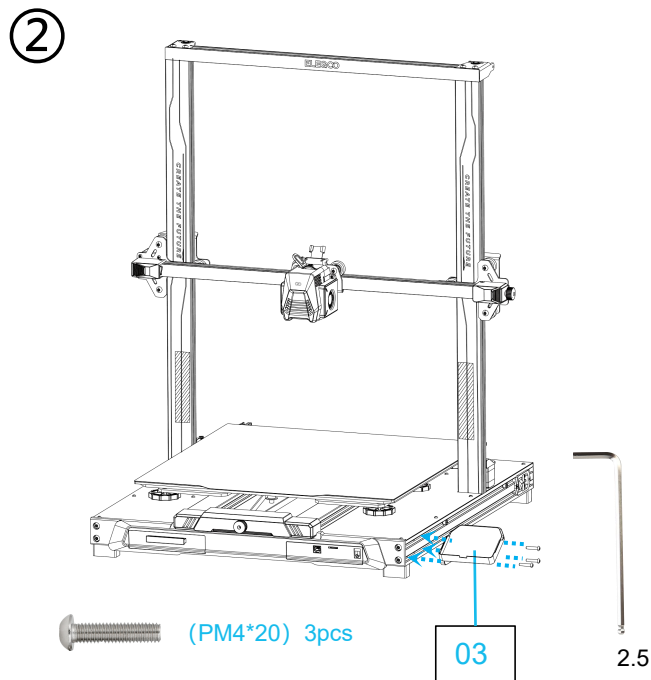
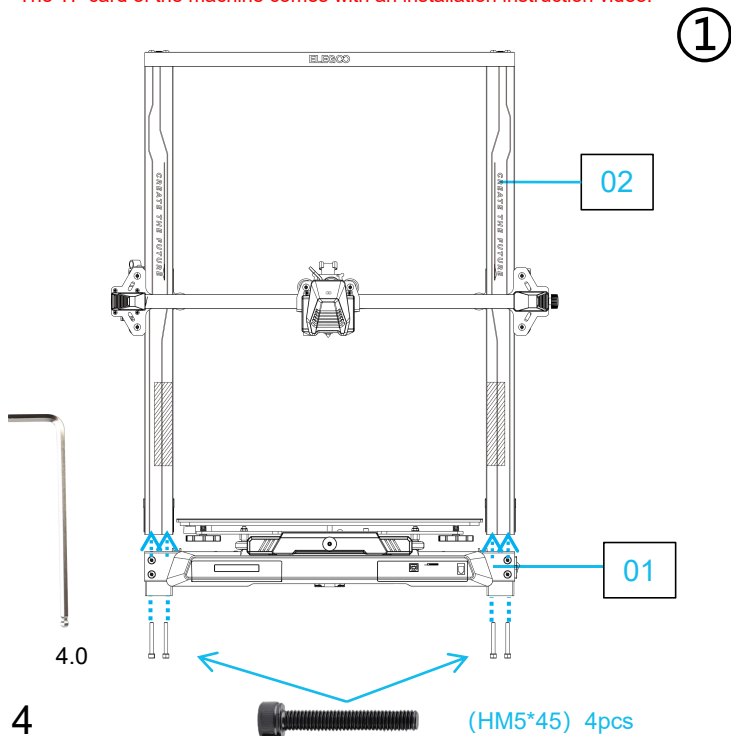


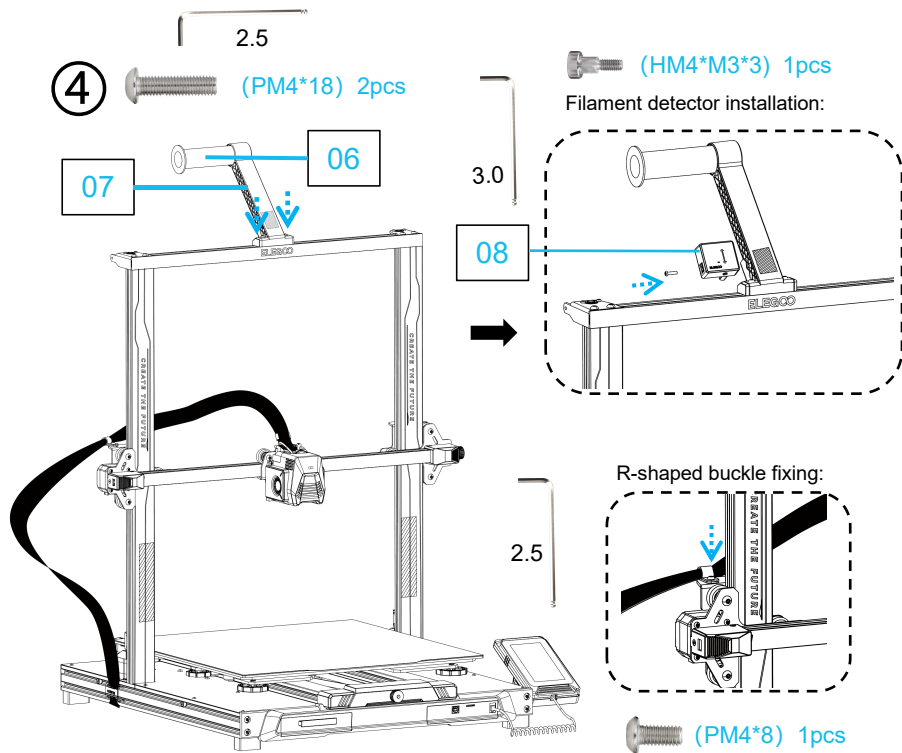
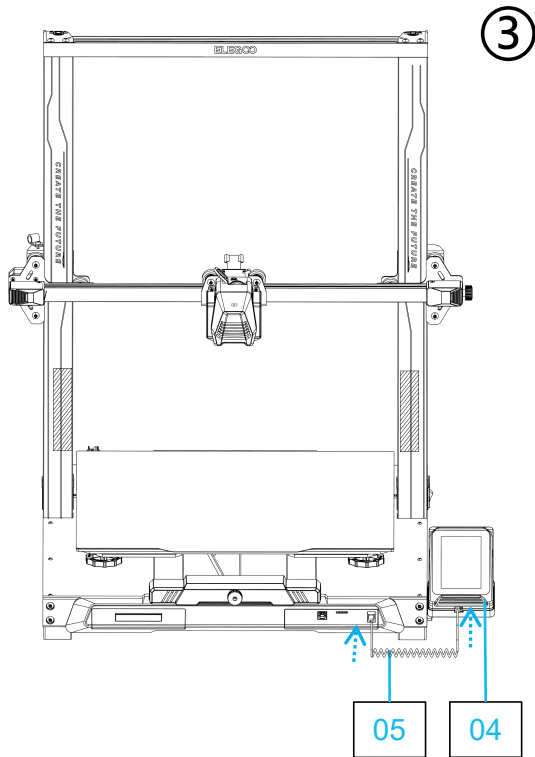
(1.5 / 2.0 / 2.5 / 3.0 / 4.0)

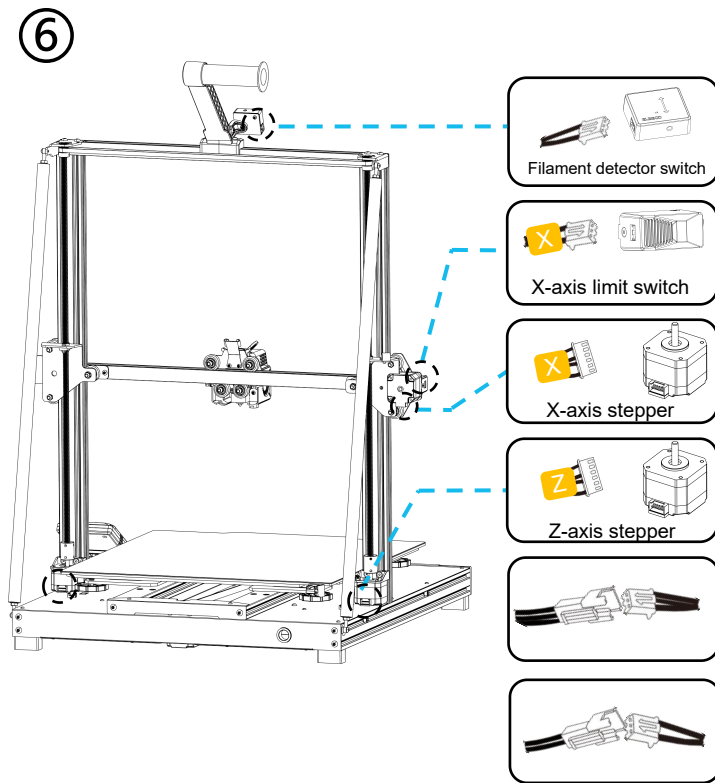
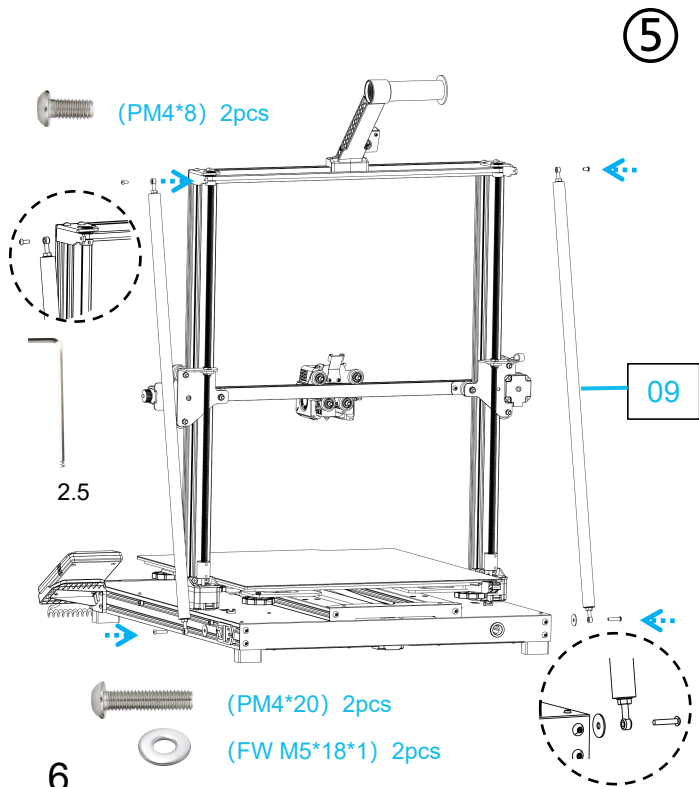


Machine Installation

The TF card of the machine comes with an installation instruction video.





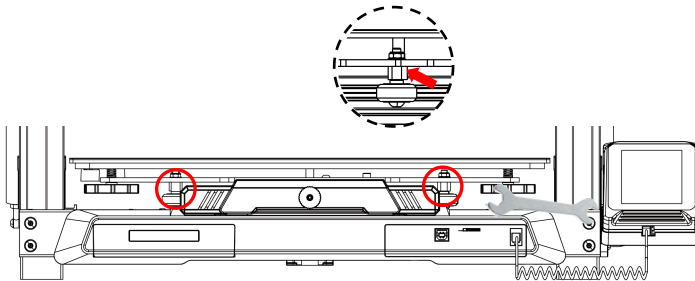
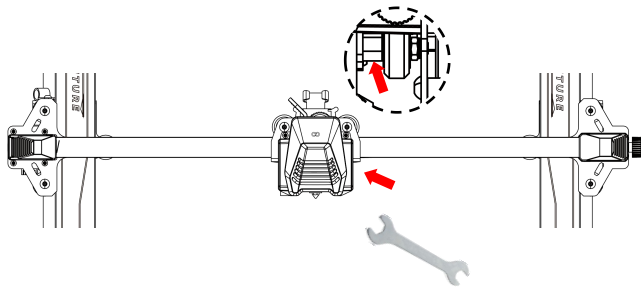


Supplementary Introduction

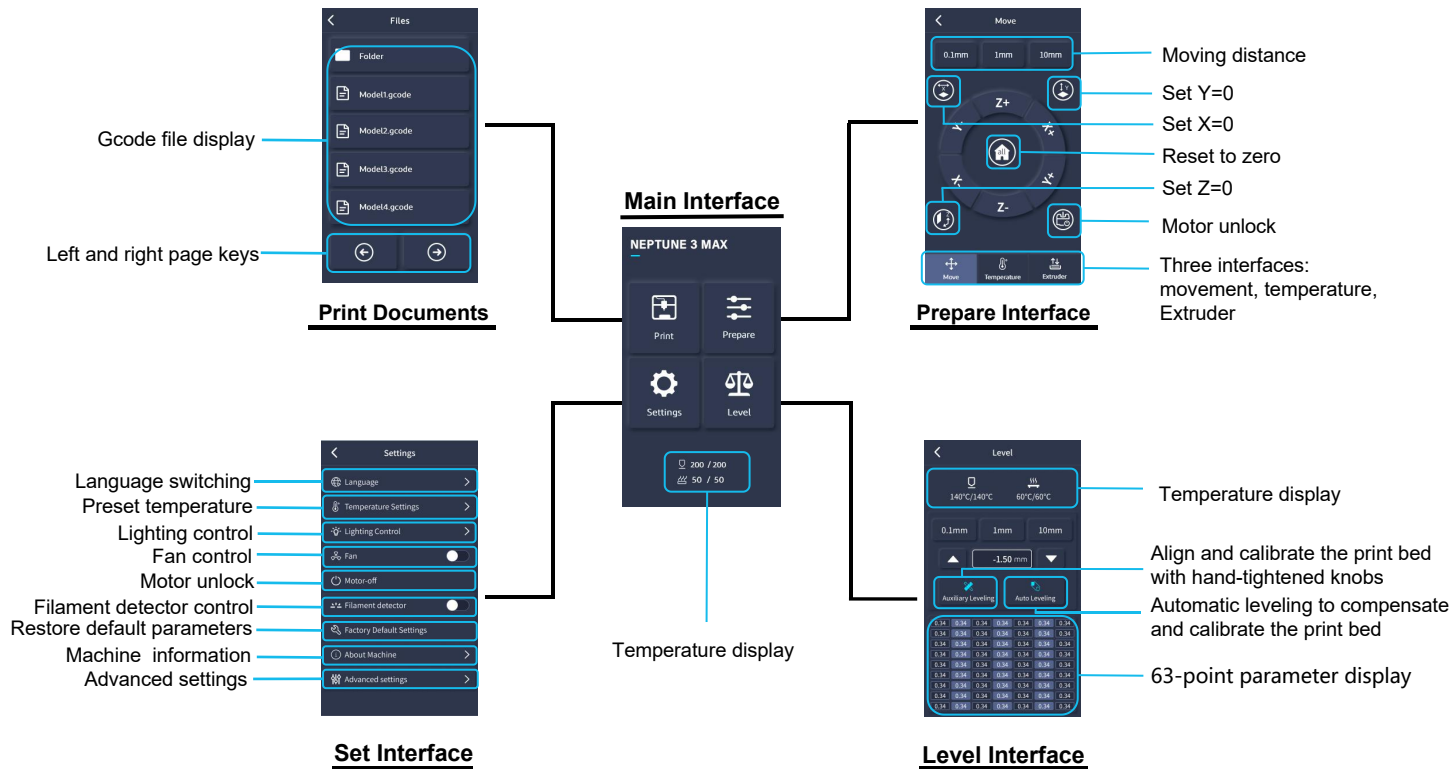
Special Case :

The bottom slide block has been adjusted before leaving the factory, but the pulley of the machine may become loose due to the transportation. If the build platform of the machine is shaky and loose, an open spanner can be used to slowly twist the eccentric isolation column under the platform until the slide block slides smoothly and does not shake.

Similarly, if the print head is shaky or loose, the corresponding eccentric isolation column can also be adjusted until the print head slides smoothly without shaking, and the pulleys on both sides of the gantry also have corresponding eccentric isolation columns that can be adjusted.



Operation Screen Introduction

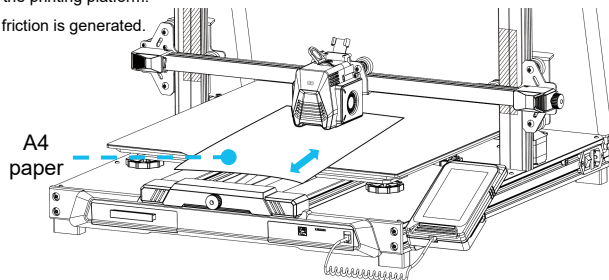


Auto Leveling

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 .

- ①
- When the printer is powered on, select **[Level]**
 - Each axis of the printer automatically returns to the origin. After entering the leveling interface, place a piece of A4 paper between the nozzle and the printing platform, and click the compensation value to adjust the distance between the nozzle and the printing platform (See picture 2), by pushing and pulling the paper with the friction generated to complete the center point calibration. Then click the auxiliary leveling , and use A4 paper to calibrate the remaining six points of the platform by hand-tightened knobs, and each point can be completed by generating friction on the A4 paper.
 - After completing the auxiliary leveling, enter the automatic leveling for automatic calibration.
 - The machine will enter the heating state: the nozzle is heated to 140°C, the hot bed is 60°C. (Please preset the hot bed temperature according to the temperature of the consumables to achieve a more accurate leveling value.)
 - After reaching the preset temperature: start the 63-point automatic calibration.
 - After the leveling is completed, set the Z-axis compensation: place a piece of A4 paper between the nozzle and the printing platform. Click the compensation value and push and pull the A4 paper to complete the compensation and leveling when friction is generated.

Note that the leveling sensor only detects the metal platform plate, for example, replacing the glass platform for leveling will not produce detection effect, which will cause the nozzle to squeeze the platform.



- ②
- Similarly, you can directly click the automatic leveling  to calibrate the printing platform (See picture 4). After the leveling is completed, set the Z-axis compensation: place a piece of A4 paper between the nozzle and the printing platform, click the compensation value and push and pull the A4 paper to complete the compensation and leveling when friction is generated. (The front auxiliary leveling is to improve the evenness of the platform and make the compensation effect of automatic leveling better.)

Model Test

Print Head Feeding Check

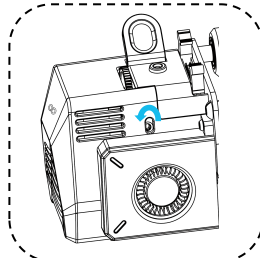
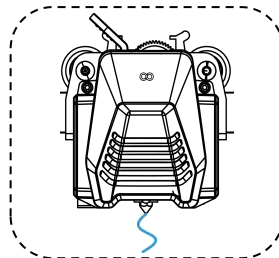
- 1) First push the filaments to the bottom of the print head.
- 2) Click 【Prepare】 - 【Extruder】 , click 【Load】 , the temperature of the nozzle will be automatically heated to 200°C.
- 3) After the nozzle is preheated to 200°C, click the feed to extrude the filaments from the nozzle.
- 4) Clean the melted filament of the nozzle before printing.

Notice: Consumables with different hardness have different requirements for the spring strength. The spring strength of the extruder can be adjusted with an Allen wrench. When turning counterclockwise, the spring strength is increased, and the spring strength is decreased clockwise.

Start printing

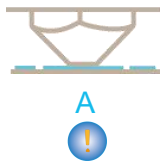
- 1) Insert the TF card into the card slot of the printer.
- 2) Click 【Print】 on the main menu and select the model file.
- 3) When the nozzle and the heatbed reach the preset temperature, the X, Y, Z axis will return to zero, and then start printing.

Notice: When printing the test model, please observe the first layer printing. In cases A and C, the compensation settings are not properly adjusted. Compensation adjustments can be made during printing to adjust the distance between the nozzle and the platform. In case B, the nozzle and the platform have reached a proper printing distance and can continue printing.

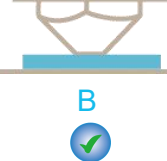


2.5

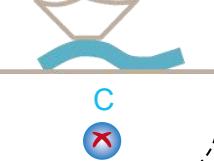
The nozzle is too close to the platform, resulting in insufficient extrusion.



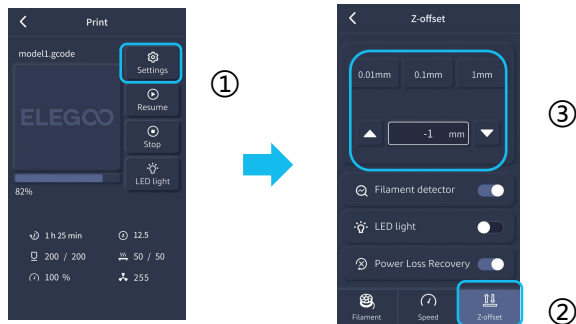
The extrusion volume and distance between the nozzle and the platform is proper with uniform adhesion.



The nozzle is too far from the platform and the adhesion is insufficient, the model may fall off the platform during printing.



As shown in the picture:



When fine-tuning, please switch the moving distance to 0.01mm or 0.1mm to prevent the nozzle from extruding the platform excessively or filament hanging in the air.

Resume Printing Description

Power Loss Recovery: If you want to continue printing because of a sudden power outage or accidentally turn off the power of the machine, this function does not need to be set manually. When the printer is reconnected to the power supply and turned on, just click resume to continue. (Please note that the PEI platform has a better adhesion effect when it is heated, but it will cool down if the power is turned off for too long, causing the model fall off easily, and the resume printing cannot be completed.)

Filaments Detection: This function is to remind the user to replace the filaments before continuing printing when the model is half-printed, which effectively prevents the model from being scrapped due to insufficient consumables.

Software Installation

Tips: You can use a card reader to copy the data in the TF card to the computer for storage.

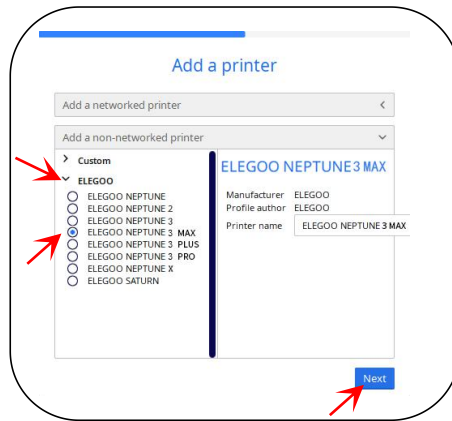
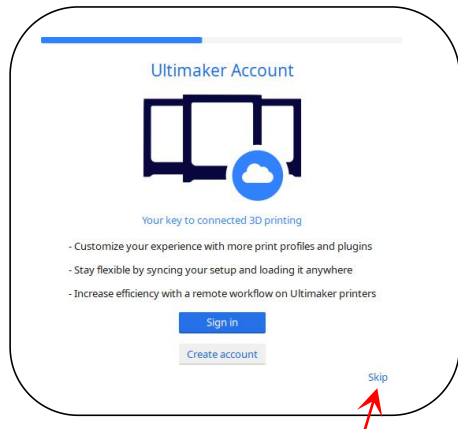
Our slice software is modified form Cura open source slice software, in order to better match with our company's machines for printing and meet the needs of our customers.

The software installation steps are as follows:

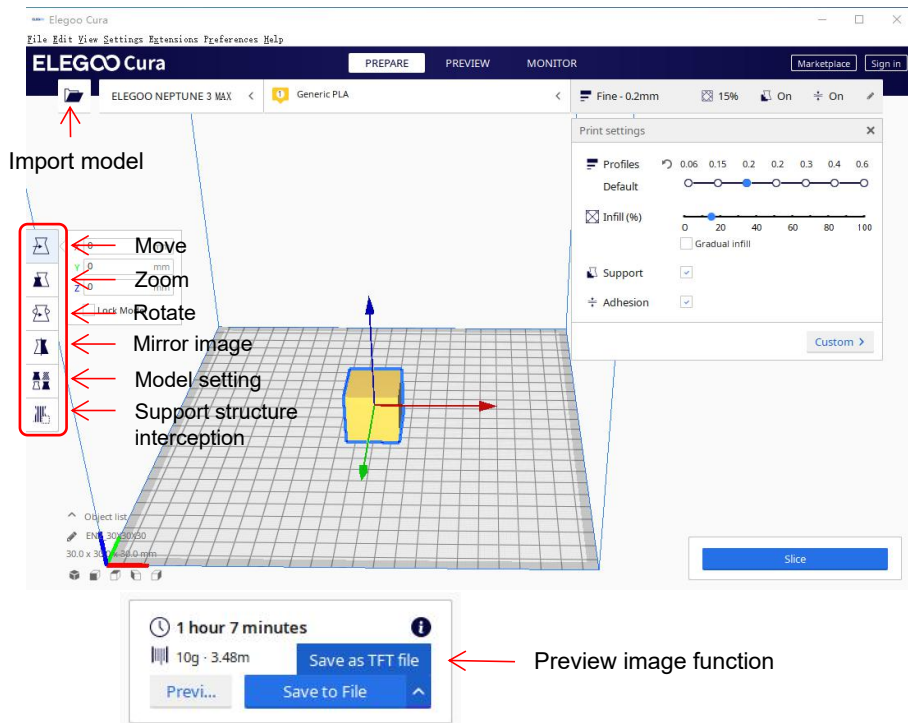
Open the TF card of the machine to select the path \ Software and Software Drivers folder \ ELEGOO Software folder \ Double-click the ELEGOO-Cura application to install it.

Follow the prompts in the installation process to the next step.

Finally, select the corresponding model of our company as shown below to complete the settings.



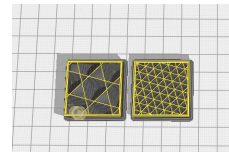
Instructions for Use



Other operation tips:

- ① Scroll the middle mouse wheel to zoom the viewpoint, and hold down the middle wheel to move the platform position.
- ② Press and hold the right mouse button to move the mouse to change the viewpoint.
- ③ Click the right mouse button will bring up a pop-up selection.

Model setting: When printing multiple models, you can configure individual slice settings for the specified model.



Support structure interception: You can set the intercept region on the model so that the set region does not generate support structure.

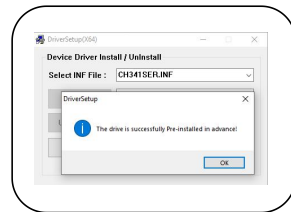
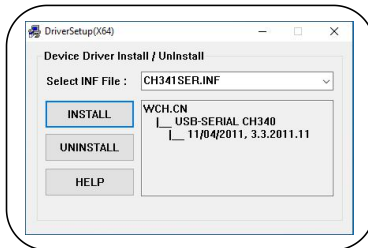
Preview image function: Gcode files saved in TFT file format can use to preview the model image in the selection file on the printer, which can identify the printed file more visually.

Online Print

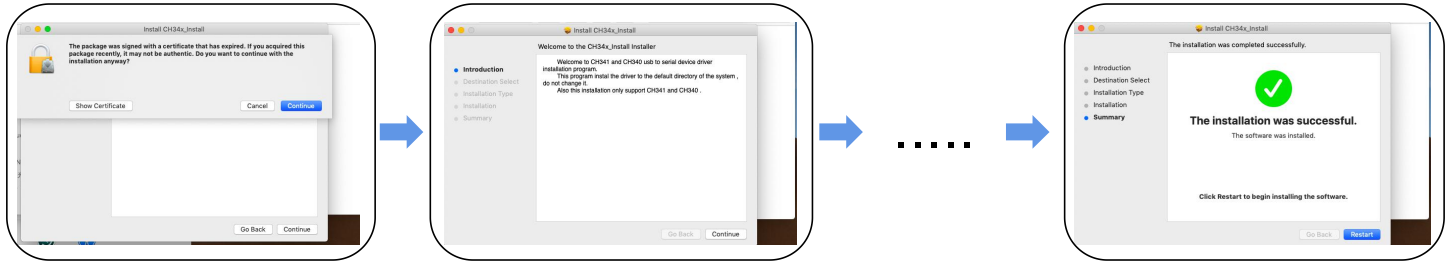
Please be sure to check the relevant data files in the TF card!

- Connect the printer and computer with USB cable, double-click to open the slicing software, select the corresponding model and then click on the monitor, if the interface shows a blank then it proves that the connection is not successful, you need to install the driver.
- The installation method of the driver, Window processes it as follows: Open the profile of the TF card to select the path \ Software and Software Driver Folder \ Software Driver Folder \ Window-USB Driver Folder\ CH340G USB Driver Folder \ Double-click the [DRVSETUP64] file to run it and click to install it. (As shown in the picture below.) Please note that this driver software has no virus, so please feel free to install it. If your antivirus software determines that it is a virus, you can close your antivirus software for a while and then continue to install the driver software.

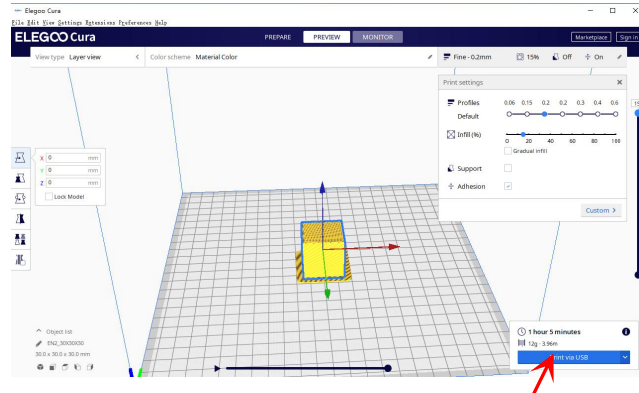
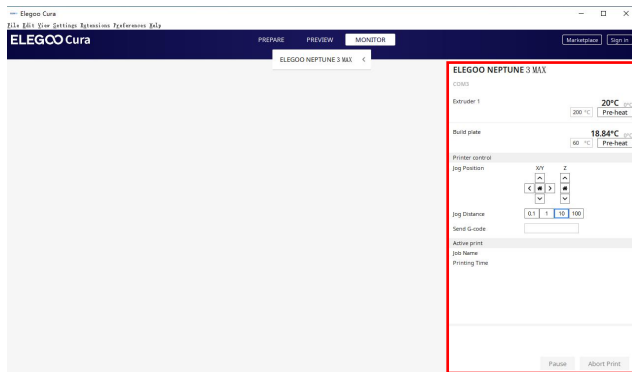
Name	Date modified	Type	Size
CH341PT.DLL	11/13/2020 1:49 PM	Application exten...	7 KB
CH341S64.SYS	11/13/2020 1:49 PM	System file	57 KB
CH341S98.SYS	11/13/2020 1:49 PM	System file	20 KB
ch341SER	11/13/2020 1:49 PM	Security Catalog	10 KB
CH341SER	11/13/2020 1:49 PM	Setup Information	6 KB
CH341SER.SYS	11/13/2020 1:49 PM	System file	39 KB
CH341SER.VXD	11/13/2020 1:49 PM	Virtual device driver	20 KB
DRVSETUP64	11/13/2020 1:49 PM	Application	42 KB
SETUP	11/13/2020 1:49 PM	Application	82 KB



- The installation method of the driver, Mac processes it as follows: Open the random TF card data and select path\software and software driver folder\software driver folder\Mac-USB driver folder\CH34X_MAC folder\double-click CH34x_install_V1.5.pkg to install. Continue the installation as prompted. (As shown below)



- After the driver installation is complete, reconnect the USB cable, open the ELEGOO slicing software, and then click on the monitor, if it display the printer model and other information, the computer has been successfully connected.
- After importing the model, set the print temperature, layer thickness and other relevant information, and then click on the **【slice】** , select the USB online printing.
- The power supply cannot be cut off when printing through the USB cable, and the computer cannot enter sleep and hibernation modes to prevent data transfer failures.



Troubleshooting Guide

A stepper of the X/Y/Z axis is not moving or making a noise when zeroed

- ① The stepper cable is loose. Please recheck the wiring connection.
- ② The corresponding limit switch does not trigger properly, please check whether there is any interference in the movement of the corresponding shaft and whether the limit switch wire is loose.

Nozzle kit extrude anomaly

- ① Check that the extruder stepper cable is not loose.
- ② Check whether the set screw of the extruder gear is locked to the motor shaft.
- ③ The heat dissipation of nozzle kit is not enough, make sure that the nozzle kit's cooling fan is working properly.
- ④ For clogged nozzles, try briefly heating the nozzle to 230°C and squeezing the filaments by hand to remove the clog, or use a fine needle to unclog the nozzle while it is warming up.

Model does not stick to the platform or warpage

- ① The key to whether the model can stick to the platform is the filaments are attached to the platform when printing the first layer. When printing the first layer, if the distance between the nozzle and the platform is more than 0.2mm, it will seriously reduce the model's attachment to the platform, so it needs to be adjusted.
- ② Set up the build platform attachment in Cura, and select the attachment type **【Brim】**, which will help to enlarge the attachment surface and prevent warping and other problems.

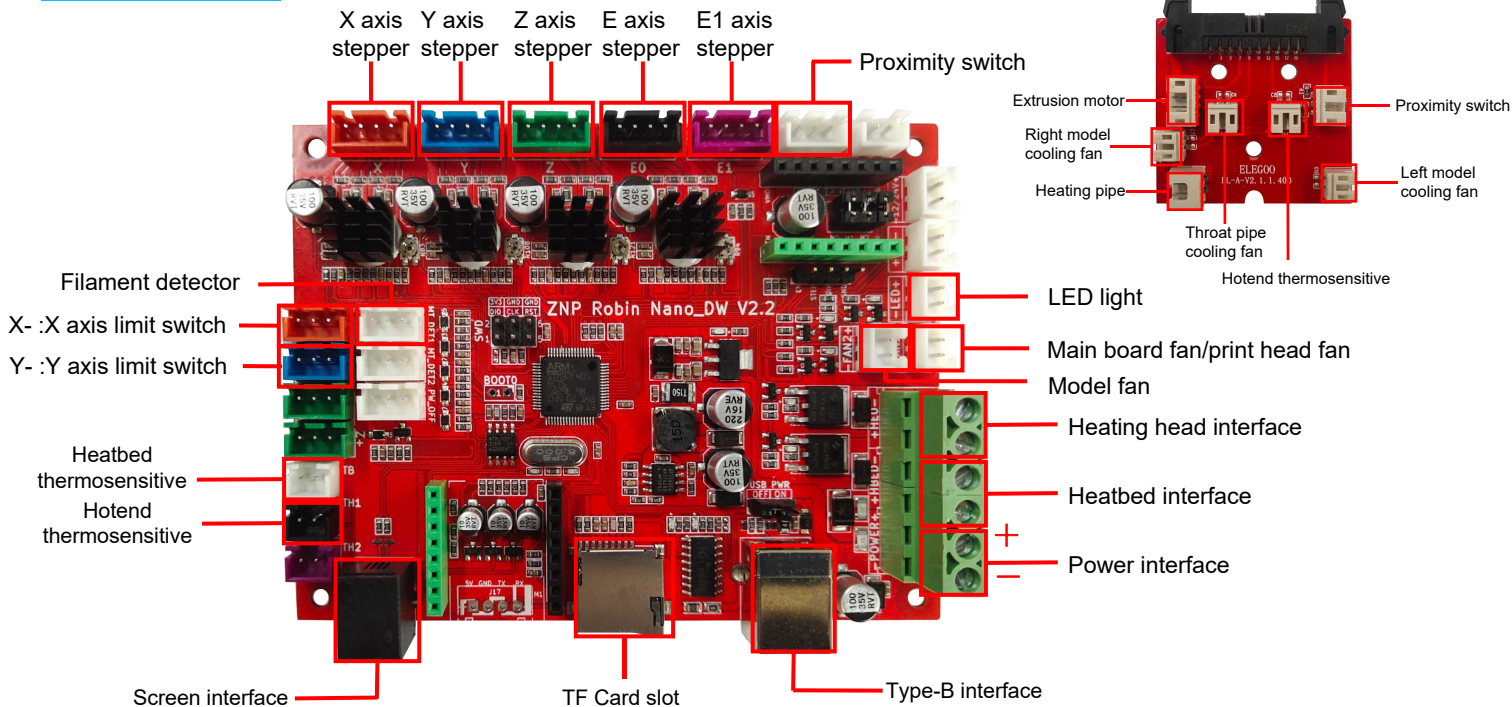
Model misalignment

- ① The travel speed or print speed is too fast. Please try to reduce the speed.
- ② The belt of X/Y axis is too loose or synchronizer pulley is not securely tight.
- ③ Drive current is too low.

Severe wire drawing

- ① Insufficient retraction distance, set the retraction distance larger when slicing
- ② If the retraction speed is too slow, set the retraction speed higher when slicing.
- ③ When slicing, tick the box "Z Hop When Retracted" and set the "Z Hop height" to about 0.25mm.
- ④ Print temperature is too high, which causes the filaments to become sticky.

Circuit wiring



After-sales service registration card
售后服务登记卡

Date of purchase

购买日期： _____

Place of purchase

购买地点： _____

Printer

机器： _____

S/N

序列号： _____

Fault description

故障描述： _____

Contact

联系人： _____

Phone number

电话号码： _____

Address

地址： _____



ELEGOO official website: www.elegoo.com

