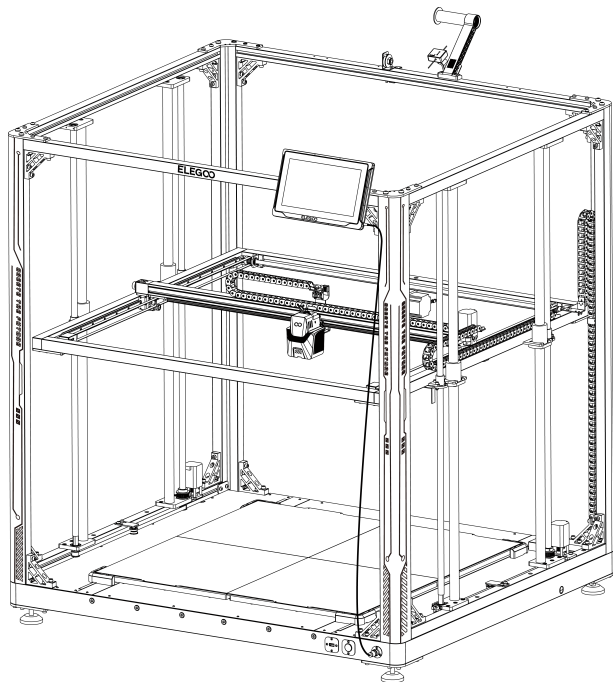


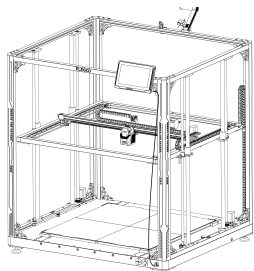


OrangeStorm Giga FDM 3D Printer

User Manual



Pictures are only for illustration purposes. Actual production products may vary from images.



Thank you for choosing the ELEGOO product!

This User Manual has been provided for your convenience. Please read this instruction manual carefully before using your new printer, as the precautions, information, and tips can help to avoid the risk of incorrect product setup and usage.

For any questions or issues not covered in this manual, please directly contact us at 3dp@elegoo.com.

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

To provide you with the best product experience, in addition to this manual, you can find supplemental information for the operation of your new printer via:

1. The USB Drive: The digital files include a copy of this manual and all required software and videos.
2. The ELEGOO official website: www.elegoo.com for related equipment operation, contact information, etc.

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 heated bed when the printer is working to prevent high-temperature burn 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 burning.
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. The 3D printer contains high speed parts, so be careful not to pinch your hands.
6. The moving parts of the X and Y axes of the machine are composed of linear guide rails, which need to be lubricated regularly to keep the movement smooth.
7. Children must be supervised by adults when using the machine to avoid personal injury.
8. In case of emergency, please cut off the power directly.
9. Before leveling, homing or printing, ensure that the golden PEI sheet is properly placed on the platform. Failure to do so may result in nozzle collisions with the magnetic sheet, causing damage to both the nozzle and the magnetic sheet.
10. It is essential to ground the machine during operation. Devices that are not grounded or improperly grounded inevitably increase the risk of electrical shock.
11. If the machine is not in use for a long period, please turn off the device and unplug the power cord.

Troubleshooting Guide

A stepper motor of the X/Y/Z axis is not moving or making a noise when returning to home

- ① The stepper motor cable could be loose. Please recheck the wiring connection.
- ② The corresponding limit switch may not be triggering properly, please check whether there is any interference in the movement of the corresponding shafts and ensure the limit switch wiring is not loose.
- ③ Loose timing belt may result in rough motion or abnormal noise in the X/Y axis. It can be resolved by adjusting the tension of the timing belt using the rotary knob.

The nozzle assembly is exhibiting extrusion anomalies

- ① Check that the extruder stepper motor cable is not loose or disconnected.
- ② Check whether the set screw of the extruder gear is firmly engaged to the motor shaft.
- ③ The heat dissipation of the nozzle assembly may not be enough, verify temperatures and check the cooling fan operation.
- ④ For clogged nozzles, try first heating the nozzle to 230°C and pushing the filament by hand to remove a potential clog, or use a fine needle to unclog the nozzle tip while it is heating up.

Model does not adhere to the build platform (PEI sheet) or is showing warping

- ① The key to whether a model can adhere (stick) to the build plate is largely based on the printing of the first layer. When printing the first layer if the distance from nozzle to platform is more than 0.2mm, it will seriously reduce print adhesion and need to re-level the platform.
- ② Try setting the build model first layer option in Cura to [Brim] to improve first layer adhesion, this should also be used to reduce any cases whereby the edges of the printed model are warping or lifting off the build platform.

Model shows signs of layer shift

- ① The travel speed of the printer hot end assembly or print speed is set too fast. Please try to reduce the print speed
- ② The belts of the X/Y axis may be too loose or the synchronizer pulley is not secured tightly. Check these components.
- ③ The current to the drive may be too low.

Severe issues in the printed model of “stringing” or “ringing”

- ① Insufficient retraction distance is causing issues, increase the retraction distance in Cura prior to slicing.
- ② In many cases, if the retraction speed is too slow, you may need to set the retraction speed higher in Cura prior to slicing.
- ③ When slicing your model, check the box for “Z Hop When Retracted” and set the “Z Hop Height” to about 0.25mm.
- ④ Print temperature may be too high, which can cause certain filaments to become sticky and stringy.

If the printing temperature is too high, it can cause the filament to become too fluid and sticky, resulting in poor 3D printing quality. In this case, lowering the printing temperature slightly can help.

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Machine Parameters

Printer Specifications

Printer Type: FDM (Fused Deposition Modeling)

Build Volume: 800X800X1000 (mm³)

Print Precision: ± 0.1 mm

Nozzle Diameter: 0.6mm

Print Speed: 30~300mm/s (default 150mm/s)

Operating Temperature Specifications

Ambient Environment Temperature: 5°C~40°C

Maximum Temperature of Nozzle: 300°C

Maximum Temperature of Heated Bed: 100°C

(Ambient Environment Temperature 25°C)

Software Specifications

Slicer Software: Cura

Input File Format: STL、OBJ

Output File Format: Gcode

Interface: USB Drive, LAN (Network), WiFi

Power Supply Specifications

Input Power :100-120V/220-240V; 50/60Hz

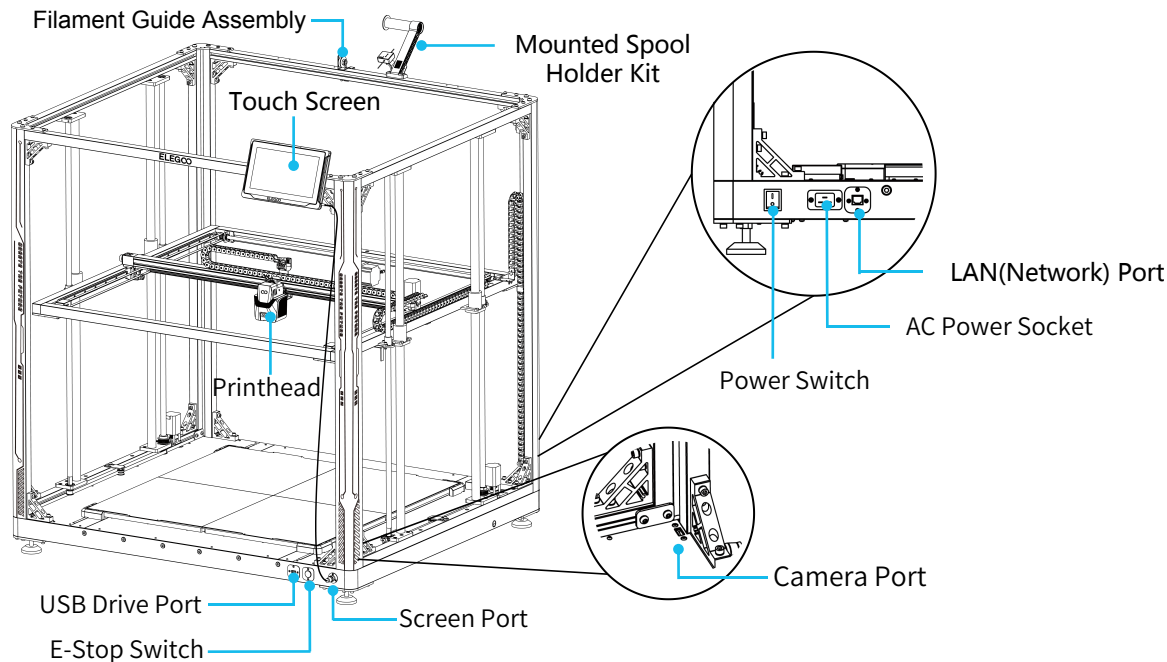
Rated Power: 1530W (Single print head)

Physical Specifications

Machine Size: 1224*1204*1425mm

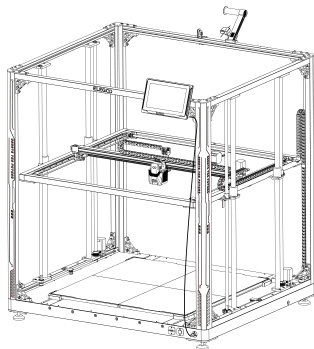
Net Weight: 104kg

Machine Component Diagram



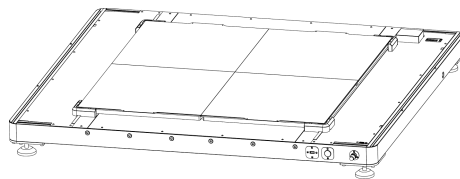
Packing List

List 1:

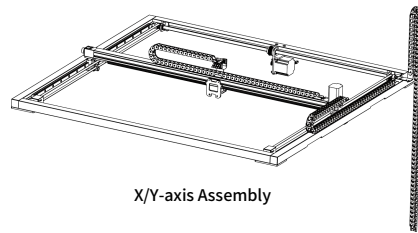


OrangeStorm Giga 3D打印机

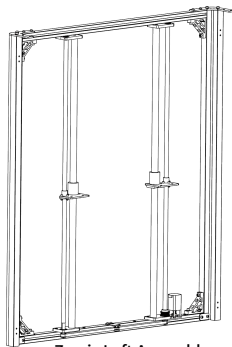
The above accessories shall be subject to actual products, and the pictures are for reference only.



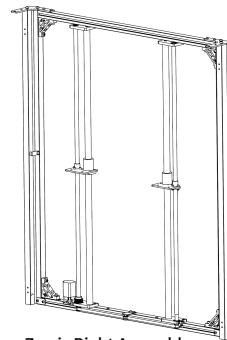
Base Kit



X/Y-axis Assembly



Z-axis Left Assembly



Z-axis Right Assembly

Packing List

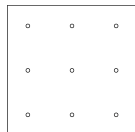
List 2:



Printhead



Screen



Leveling
Plate*2pcs



Spool Holder
Arm



Spool Holder



Filament Breakage
Detector



Z-axis End Stop



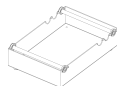
Z-axis Caterpillar
Cable Tracks Clip



Profile Corner
Bracket*8pcs



Filament Guide
Assembly



Detached Spool
Holder Assembly
(5KG)



Power Cable



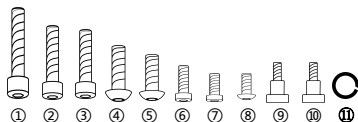
Leveling Card



Top Front Profile



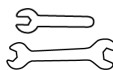
Top Rear Profile



- | | |
|------------------|------------------|
| ① (HM6*45) 8pcs | ⑥ (HM3*10) 2pcs |
| ② (HM6*40) 16pcs | ⑦ (HM3*8) 2pcs |
| ③ (HM6*30) 16pcs | ⑧ (PM3*6) 9pcs |
| ④ (PM6*28) 16pcs | ⑨ (HM3*φ4*3) 1pc |
| ⑤ (PM4*25) 4pcs | ⑩ (HM4*φ5*3) 1pc |
| | ⑪ (SW M6) 16pcs |



USB Drive



Open-end Wrench



Network Cable



Cable Tie



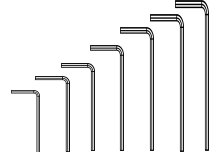
Needle



Nozzle



Screwdriver



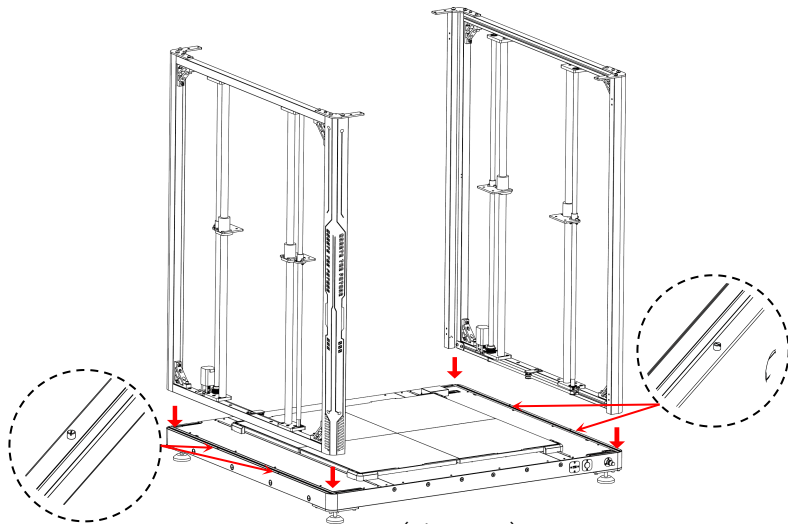
(1.5 / 2.0 / 2.5 / 3.0 / 4.0 / 5.0 / 6.0)
Allen Wrench

Machine Setup & Installation

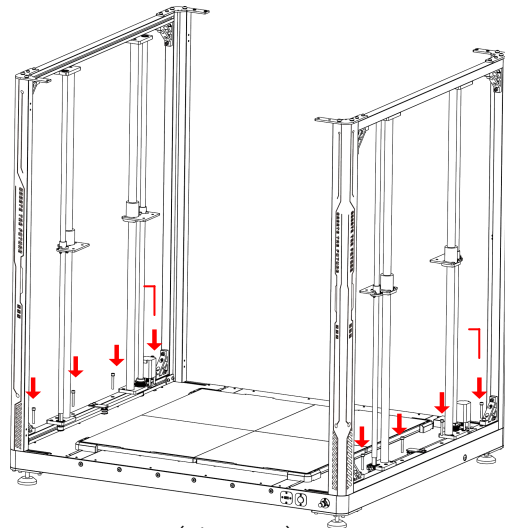
Please refer to the included USB Drive for a setup and installation instructional video.

- ① **Dowel Pin Alignment Installation:** The bottom profiles of the Z-axis Left and Z-axis Right Assemblies have corresponding dowel pin holes, so be sure to align them correctly during installation (Diagram 1)
- ② **Z-axis Left and Z-axis Right Assemblies Installation:** Use (HM6*45) 8pcs to pass through the corresponding holes of the profiles and then secure them during installation. (Diagram 2)

Note: Do not tighten the assembled screws. Secure and tighten them only after the frame is fully assembled.



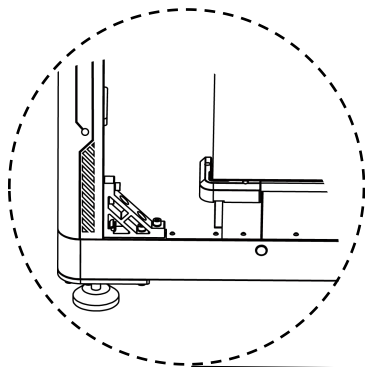
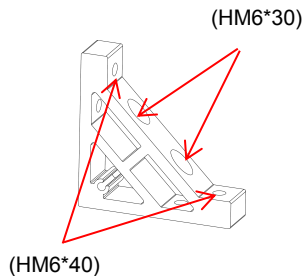
(Diagram 1)



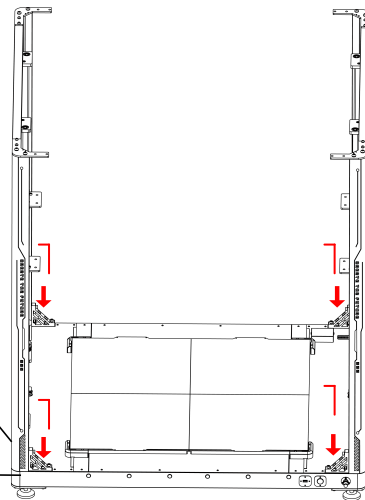
(Diagram 2)

Machine Setup & Installation

Profile Corner Bracket Installation: Four corner brackets are required to be installed at the bottom. Use (HM640) 8pcs and (HM630) 8pcs screws to pass through the corresponding holes of the profiles and secure them during installation. (Diagram 4)



(Diagram 3)

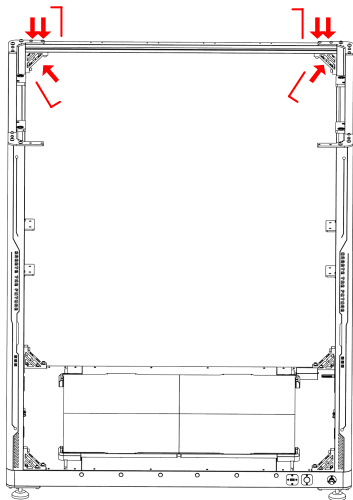


(Diagram 4)

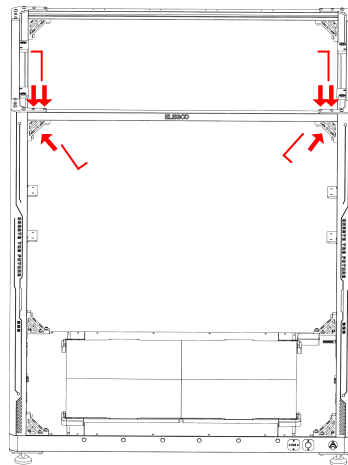
Machine Setup & Installation

- ① **Top Rear Profile Installation:** Use (PM6*28) 4pcs & (SW M6) 4pcs to secure the top rear profile. Then, proceed to install the corner brackets on both the left and right sides of the profile. For this, you will use two different sizes of screws: 4 pieces of (HM640) and 4 pieces of (HM6*30). Insert each screw through the corresponding hole on the profile and tighten them. (Diagram 5)
- ② **Top Front Profile Installation:** Use (PM6*28) 4pcs & (SW M6) 4pcs to secure the top front profile. Then, proceed to install the corner brackets on both the left and right sides of the profile. For this, you will use two different sizes of screws: 4 pieces of (HM640) and 4 pieces of (HM6*30). Insert each screw through the corresponding hole on the profile and tighten them. (Diagram 6)

NOTE: After completing the construction of the machine frame, it is crucial to systematically check and reinforce all installed corner bracket screws and screws on the profiles.



(Diagram 5)



(Diagram 6)