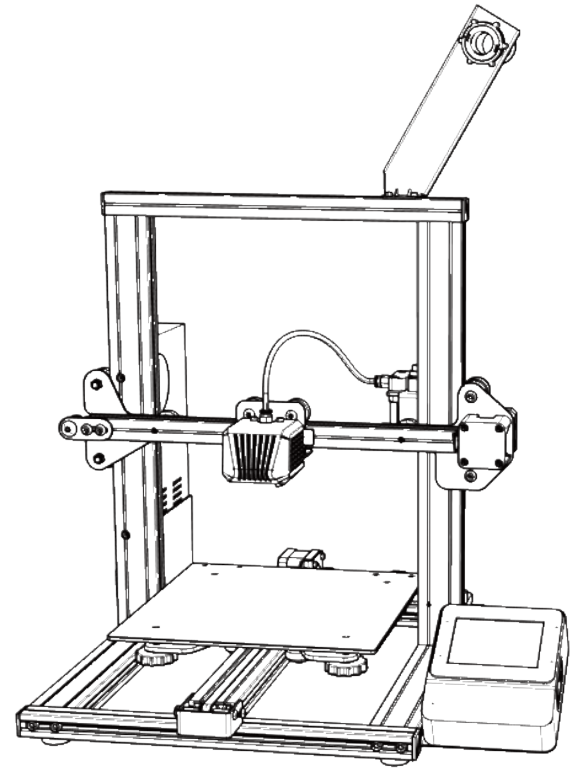




DIY 3.0 *3D Printer*

USER MANUAL



* Carefully and thoroughly read this manual before using
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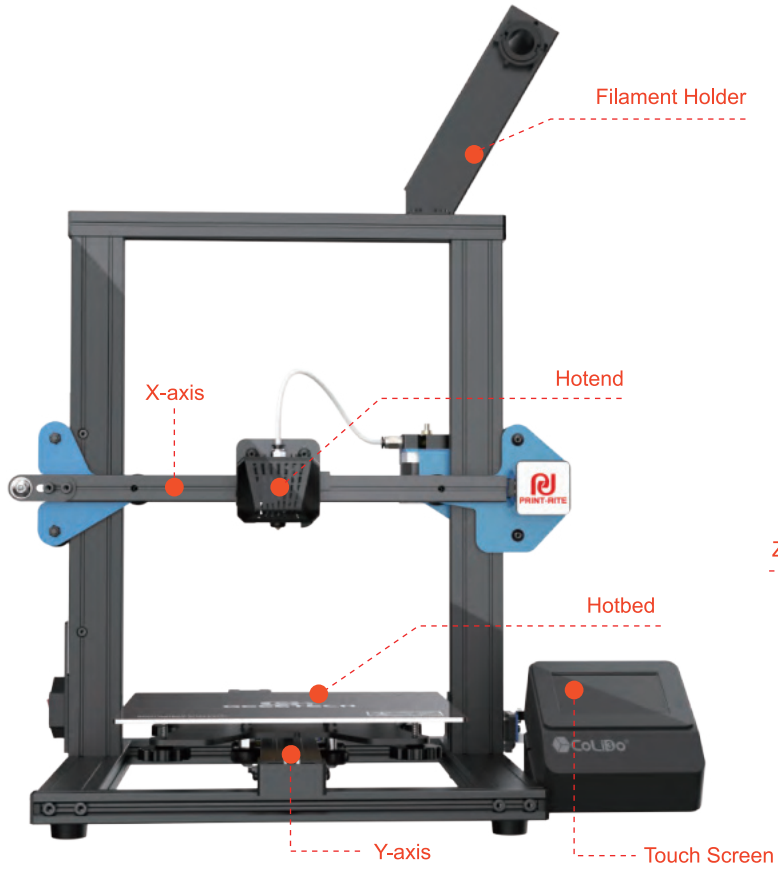
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1 TIP

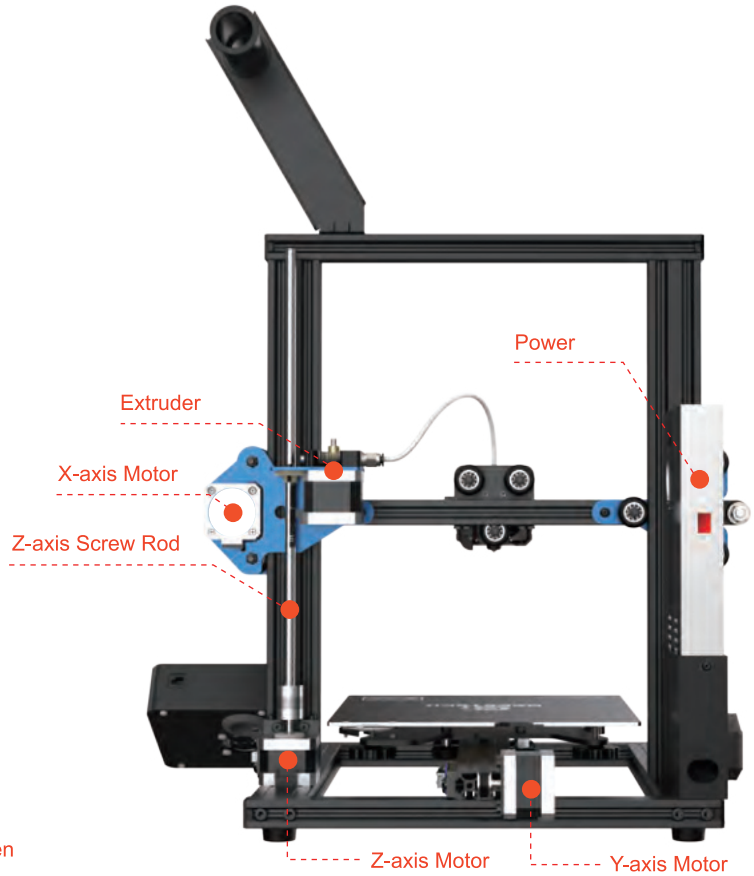
- Please read this manual carefully to ensure that you understand every operating step, and then assemble according to the demonstration picture, which will improve the efficiency of your assembly and reduce errors.
- Please check whether the parts are complete or not after unpacking.
- There may be slight differences between the actual product and this manual, which will not affect your use, please refer to the actual product.
- Since the machine is to be assembled into a complete machine for reliability test before delivery, there may be slight traces of use on the parts of the machine you receive, please be assured that we will ensure that each machine is new and unused by other consumers.

2 PACKING LIST

																												
Hotbed+Hotend +Screen Kit	Power Supply& Power Cord	Aluminum Profile(9)	Z-axis Limit Switch Kit	X-axis Fixing Kit	Testing Filament &Shovel	USB Cable	Cable Tie																					
																												
X-axis Belt Driven Kit	Filament Holder Kit	Y-axis Belt Driven Kit	X&Y Axis Belt	Screw Rod	Toolkit	User Manual	Spare Nozzle &TF Card																					
																												
Main Thread Clamp	Leveling Pager	Hotbed Sticker	Foot Pad	Y-axis Motor	X-axis Motor& Extruder	Z-axis Motor	Y-axis Limit Switch																					
				<table border="1"> <thead> <tr> <th>Serial Number</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>Specification</td> <td>M3*20</td> <td>M4*16</td> <td>M4*20</td> <td>M5*10</td> <td>M5*20</td> <td>M5*30</td> </tr> <tr> <td>Amount</td> <td>5 pcs</td> <td>15 pcs</td> <td>6 pcs</td> <td>8 pcs</td> <td>4 pcs</td> <td>26 pcs</td> </tr> </tbody> </table>			Serial Number	A	B	C	D	E	F	Specification	M3*20	M4*16	M4*20	M5*10	M5*20	M5*30	Amount	5 pcs	15 pcs	6 pcs	8 pcs	4 pcs	26 pcs	
Serial Number	A	B	C	D	E	F																						
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Amount	5 pcs	15 pcs	6 pcs	8 pcs	4 pcs	26 pcs																						
After-sale Service Card	Hotbed Spring	Hotbed Leveling Nut	Screws and Nuts																									



FRONT



BACK

1. The structural components, screws and nuts of the machine have been numbered before delivery. Please strictly refer to the following steps to assemble the machine.
2. Most components have strict requirements for position and orientation, so please be sure to follow the diagram to assemble your machine.
3. Each type of screw and nut has extra spare parts. If you find extra screws and nuts after the assembly is completed, it doesn't matter, this is normal.
4. Remember that all the screws of the aluminum profiles should be tightened at the end of the assembly, because the combination of the various components after the first assembly of the machine may not be tight enough, and need fine adjustments.
5. Please strictly refer to the diagram for the connection of the cables, otherwise the machine may be unusable and may cause damage.
6. Please do not power up the machine before the assembly is completed.

Follow the steps below to assemble the machine:

- 1 As shown in the picture below, assemble the parts corresponding to the number 1 (F represents the type of screw, *2 represents the number unit).



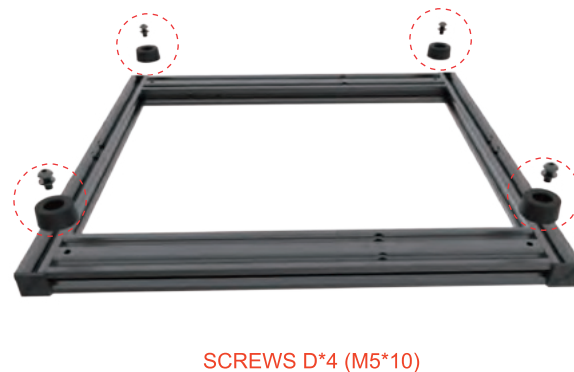
- 2 As shown in the picture below, assemble the parts corresponding to the number 2.



3 As shown in the figure below, assembly number 3 corresponding component.



4 Install the 4 foot pads, please pay attention to the profile orientation.

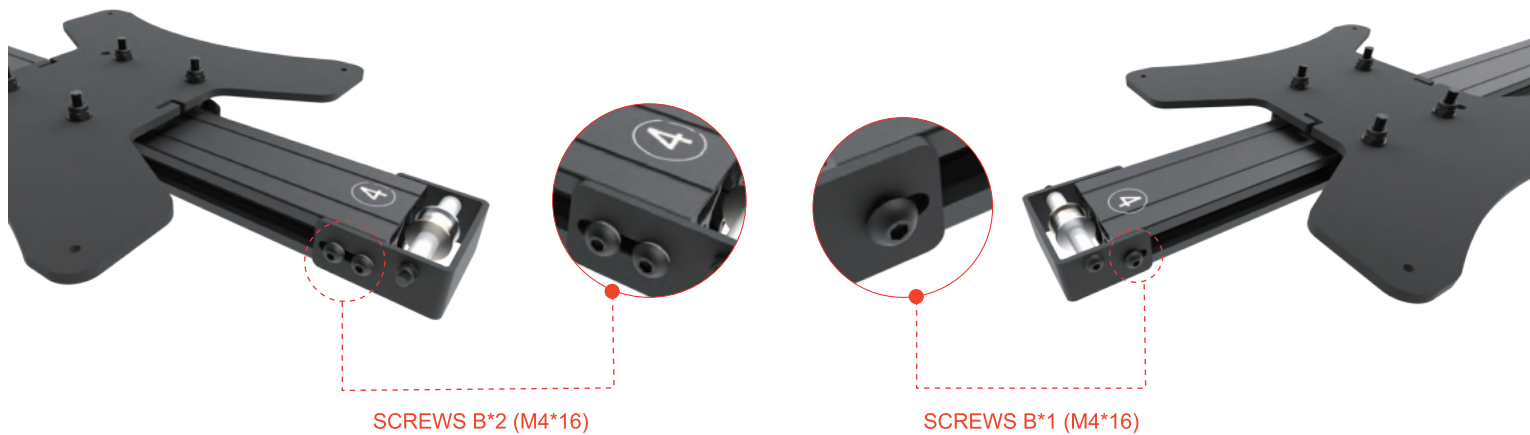


5 Assemble hotbed kit:

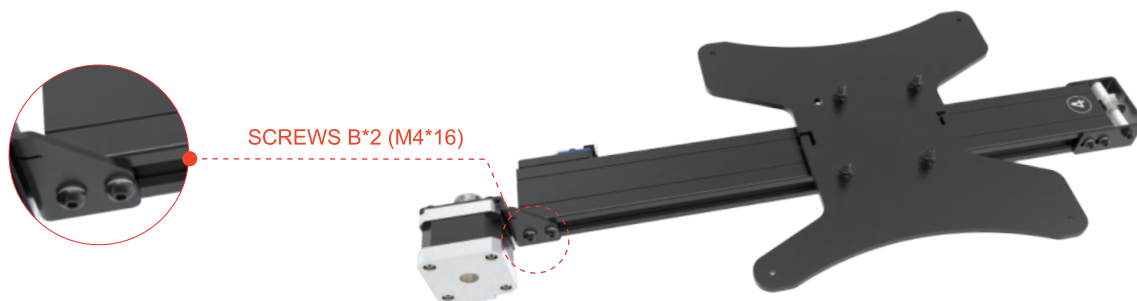
5.1 Hotbed kit, screen kit and nozzle kit are connected by cables, please pay attention during assembly and avoid damage of the cables. Please refer to the direction in the pictures below to install the hotbed to avoid wrong direction of the hotbed.



5.2 Intall Y-axis belt driven kit, do not tighten the screws, tighten them after installing the Y-axis belt.



5.3 Intall Y-axis Motor.



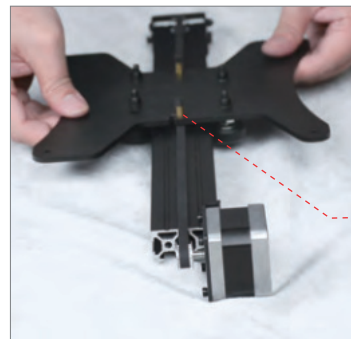
5.4 Install the Y-axis belt, which passes through the middle of the Y-axis profile. The belt should not be wound or knotted during installation.



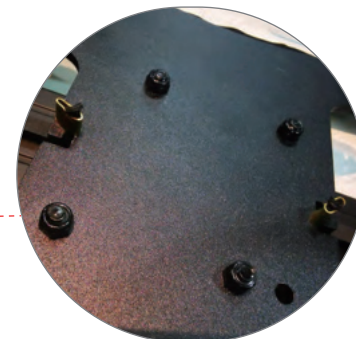
STEP 1



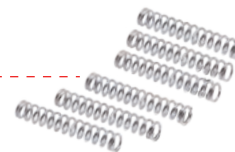
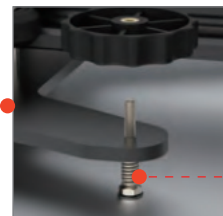
STEP 2



STEP 3

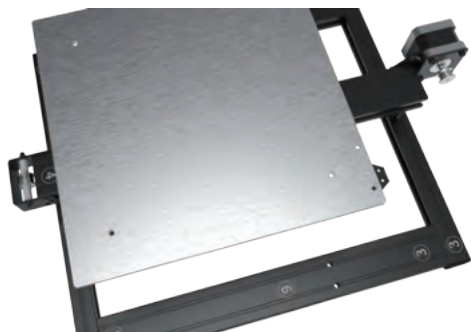


5.5 Install hotbed and fix it with leveling nuts.

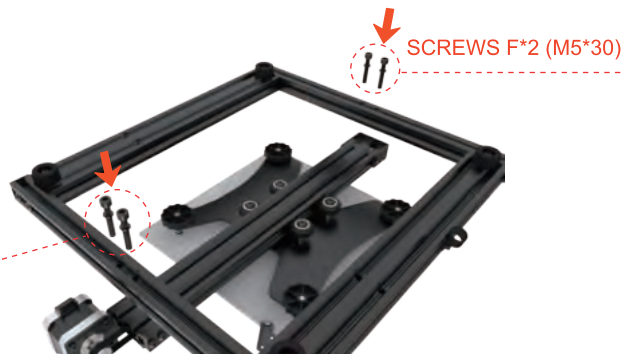


Hotbed Spring

6 Install the hotbed kit to the bottom frame. Pay attention to the direction when installing. Please refer to the picture.

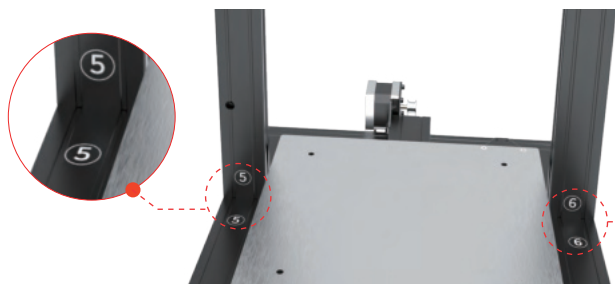


FRONT



BACK

7 Assemble part #5 and part #6, pay attention to the direction of the 2 profiles.



FRONT



BACK

8 Install Z-axis motor.

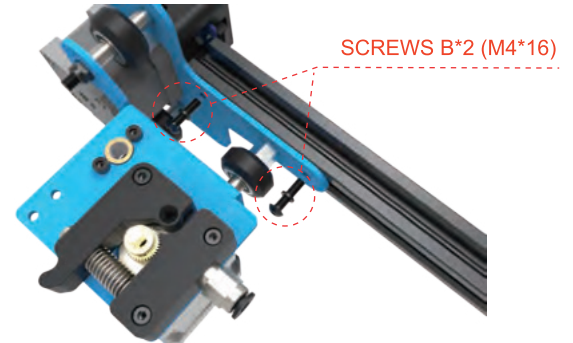


9 Assemble X-axis kit.

9.1 As shown in the picture below, assemble the parts corresponding to the number 8.



FRONT



TOP

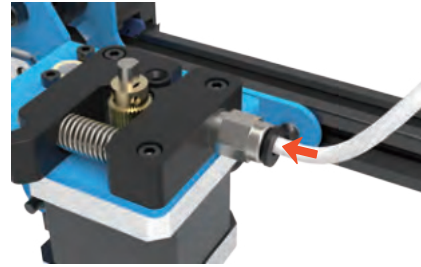
9.2 As shown in the picture below, install the hotend kit to X-axis profile from the left along the profile T-slot.



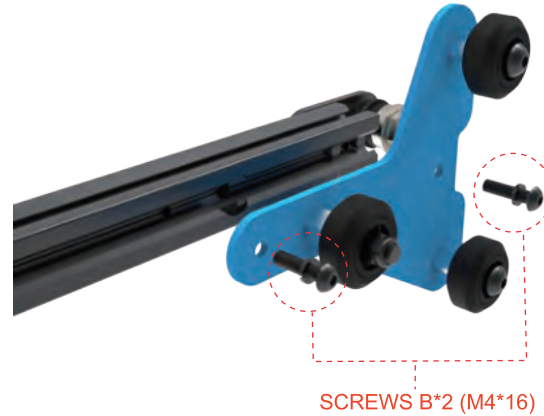
9.4 Install the X-axis driven kit, be careful that the screws should not be fully tightened. Tighten them after the X-axis belt is installed in the next step.



9.3 Plug the Teflon tube to the extruder kit.



9.5 Install the X-axis fixing kit.



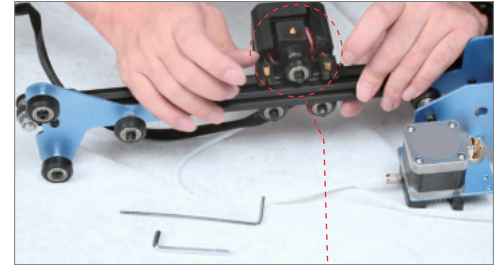
9.6 Install the X-axis belt, please remember that the belt must be tightened. You need to pull and fasten the X-axis driven kit in the previous step.



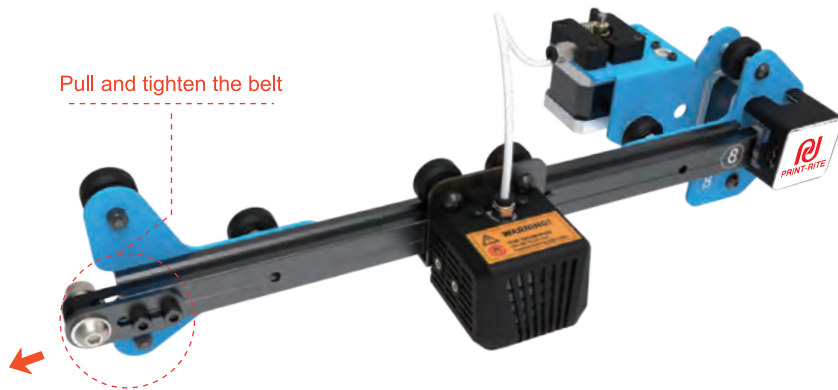
STEP 1



STEP 2



STEP 3



STEP 4

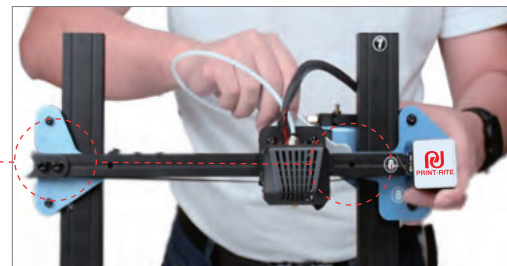


10 Install X-axis kit.



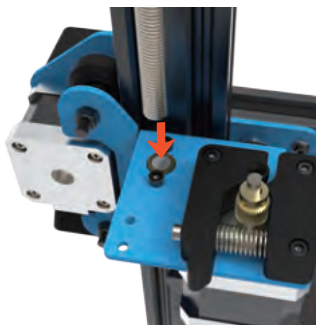
STEP 1

If the hot end kit is too tight or too loose when sliding on the Z-axis profile, it is necessary to adjust the eccentric column with a wrench.



STEP 2

11 Install the Z-axis screw rod and tighten the screws on the coupling, the screw rod need to be rotated to insert.

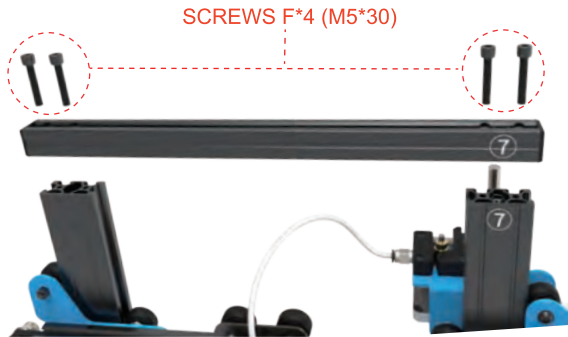


STEP 1

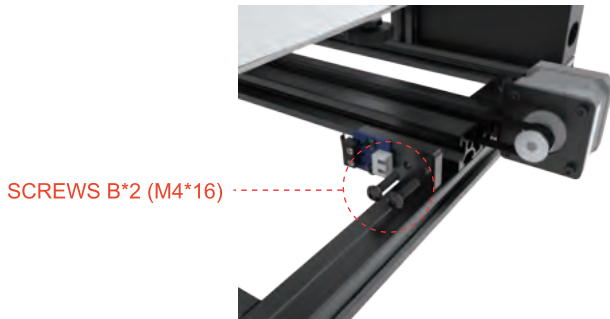


STEP 2

- 12 As shown in the picture below, install the profile corresponding to the number 7.



- 14 Install Y-axis limit switch kit.



- 13 Install Z-axis limit switch kit.



- 15 Install screen kit.



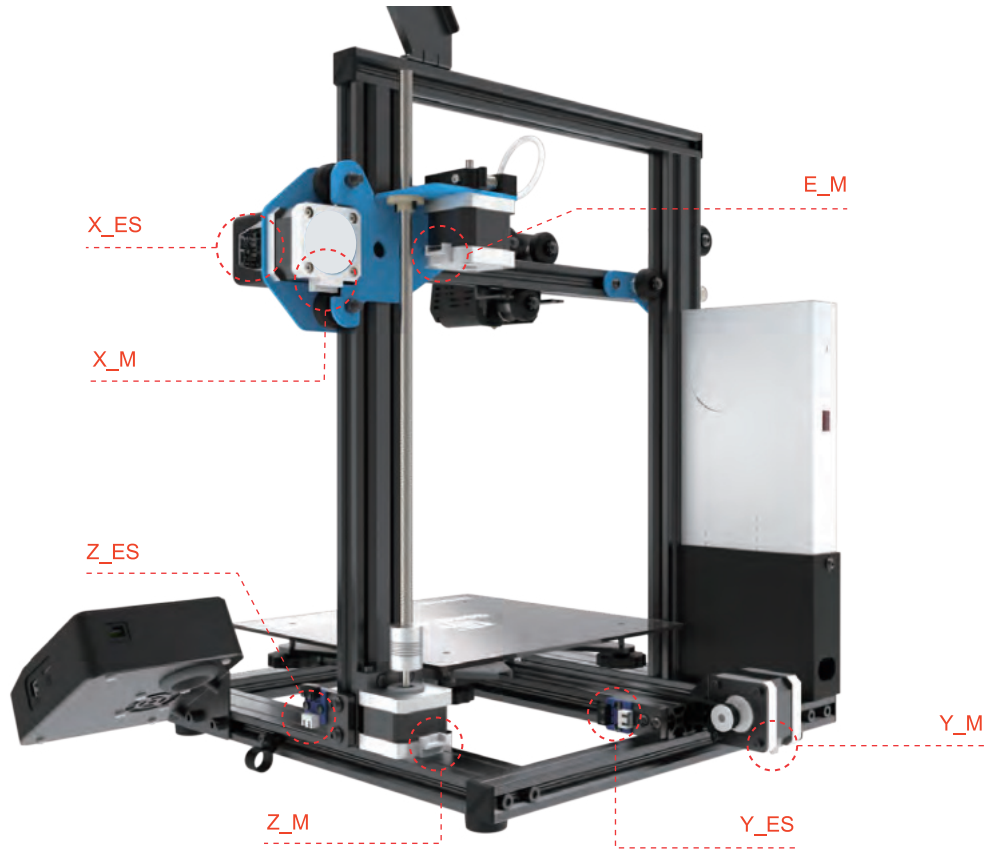
16 Install power supply kit. Check and adjust the power supply voltage according to your local voltage.



17 Firstly, assemble the filament holder kit, then fix the filament holder kit to the top frame of the 3D printer.



18 Each wire of the printer is marked. Please connect the wire correctly according to the figure below.



19 Fasten the cables with clamp.



SCREWS A*1 (M3*20)

20 Fasten the cables with cable ties.

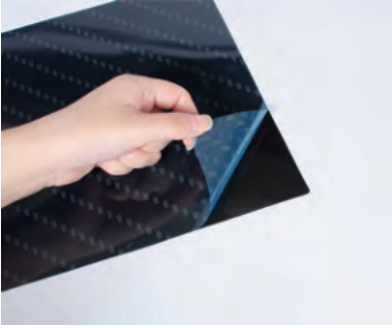


STEP 1

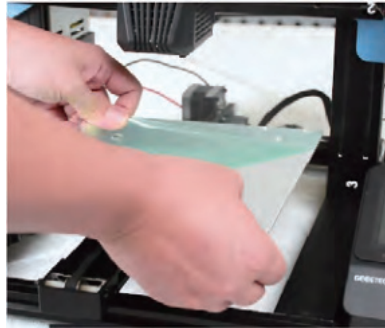


STEP 2

21 Install the Hotbed Sticker.



STEP 1



STEP 2



STEP 3

22 Machine Check.

After the assembly is completed, make sure that there are no missing parts and the structure is stable. Please check the stability of the printer by the following methods:

- 1.** Check the X axis, please move the hot end left and right to ensure smooth movement
- 2.** Check the Y axis, please move the hot bed back and forth to ensure smooth movement
- 3.** Check the Z-axis, please turn the Z-axis motor coupling and move the X-axis profile up and down to ensure smooth movement
- 4.** Check the structural stability, shake the gantry frame and the bottom frame to ensure that the structure is stable

5.1 Power supply voltage selection.

The power supply come with the printer only supports AC 115V and AC 230V, so please check the input voltage switch on the side of the power supply, and select the right one according to your local voltage, avoiding damaged before power on.

5.2 Hotbed leveling

The first layer is key to a successfully printed model and will affe the quality of the model.So users need toadjust the distance between nozzle and hotbed before using.

Power on printer, click the "Tool" icon to enter the next level menu after screen lights up. Click the "Leveling" icon to enter the manual leveling interface. When the hotend moves to the bottom left corner, twist the Leveling Nut at the bottom of the platform until the distance between the platform and the nozzle is about the thickness of a piece of paper, about 0.1~0.2mm, move the paper back and forth to see if you can feel a slight resistance. If there is slight resistance, it means the nozzle is in the correct position. Repeat for the remaining points to complete the coarse leveling.

After you level the hotbed with A4 paper, the first layer may have the following three conditions: too high, too low, moderate.

A. Too high: the distance between the nozzle and bed is too large, which may cause the filament to not stick or not stick well.

B. Too low: the distance between the nozzle and the bed is too small, which prevents the filament from coming out and causes the extruder gear to click, and even worse, scratches the nozzle on the hotbed.



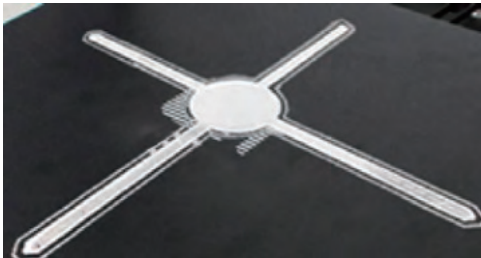
C. Moderate: extrude the filament properly and evenly stick on the bed.



In the case of too low and too high, adjust the leveling nuts under the platform till they are moderate. It may take some trial and error to achieve the best result. An example of good first layer.

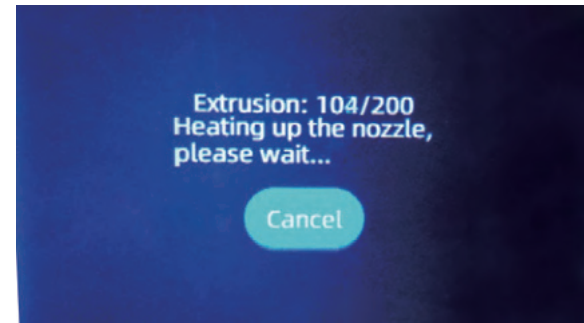
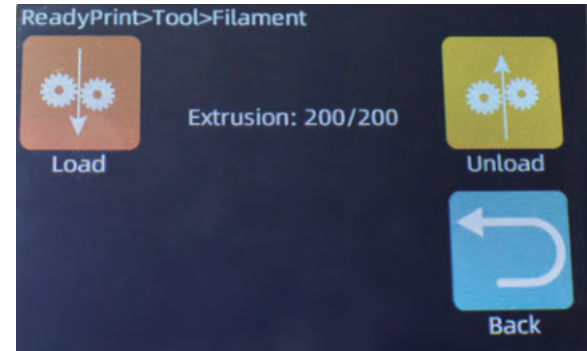
Notice:

- 1). If turn the leveling nuts clockwise, the platform will rise, and vice versa.
- 2). Avoid the nozzle touching the hotbed, or it will scratch it.

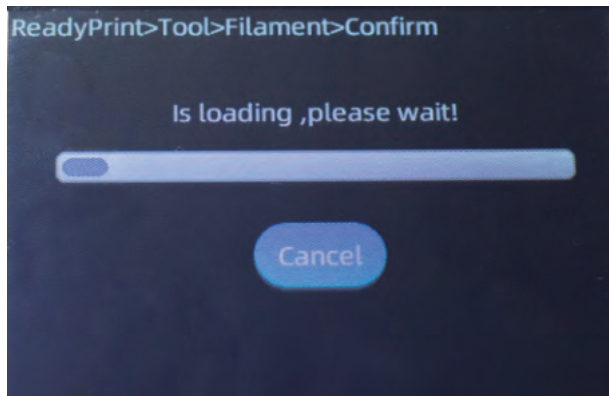
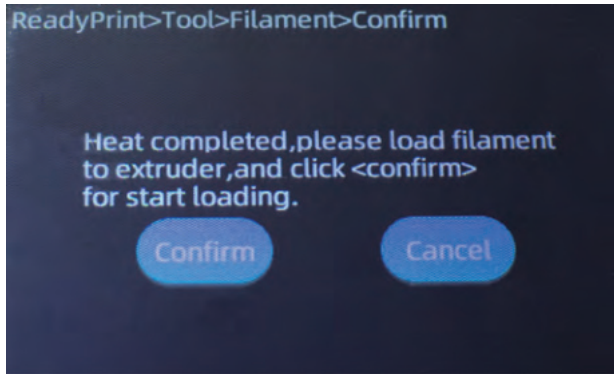


5.3 Loading filament.

A. Enter the "Filament" interface (Tool-Filament), click "Load" icon, the printer will start heating automatically.



- B.** After heating, the system will remind you to confirm the loading of filament. After selecting “Confirm”, the extruder will start to run. This operation can be repeated several times.



- C.** At this point, you need to insert the filament into the feed port of the extruder. Note that when loading the filament, press the lever of the extruder kit before inserting the filament.



- D.** After the filament loading is successful, when the melted filament can be seen flowing out of the nozzle, the loading is completed (if no filament flows out, repeat the above operation).

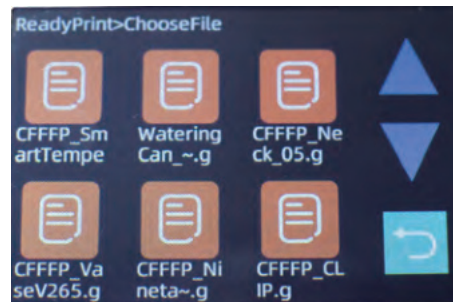


The nozzle and hot bed of the printer will produce high temperature when they are running. Please do not touch them when the printer is working to prevent scald. To ensure safety, do not print unattended.

6.1 First, generate a Gcode file by slicing software and put it into the TF card, then plug the TF card into the slot of screen kit.



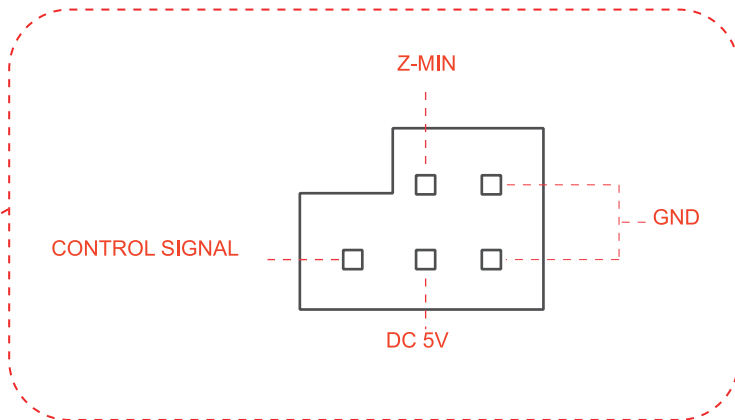
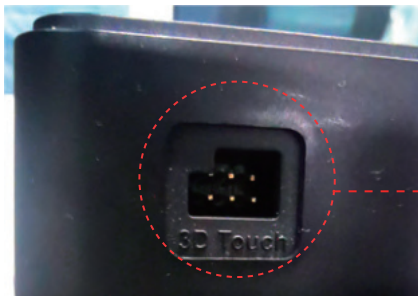
6.2 Choose the file that you want to print.



6.3 Press "Confirm" to start printing.

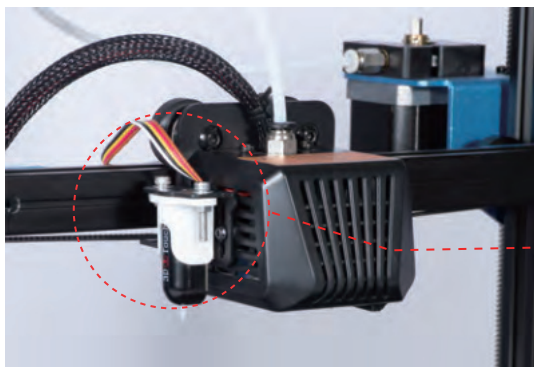


7.1 Circuit Principle.



7.2 Wiring of 3D Touch

If you choose 3D Touch for auto-leveling, the wiring of the 3D Touch is shown in the picture below:



Printer Type	FDM	Power Input	AC 115/230V 50/60Hz
Layer Thickness (MM)	0.1-0.2mm (can be set)	Printing Material	TPU,PLA,ABS,PETG,SILK PLA,Wood Polymer
Building Platform Size	220*220*260mm	Auto-leveling	Optional (need add 3DTouch sensor)
Break Resuming	Optional	Nozzle Diameter (mm)	0.4
Nozzle Quantity	1	Printing Accuracy	0.1mm
Slicing Software	EasyPrint Lite,Repetier-Host,Cura	Supported File Format	.Gcode
Hotbed Max. Temperature (°C)	100 °C	Hotend Max. Temperature (°C)	250 °C
Environmental Temperature (°C)	10~40 °C	Machine Size	435(L)*484(W)*668(H)mm
Packing Size	457(L)*392(W)*230(H)mm	Machine Net Weight	6.3kg
Package Weight	8.1kg		