



# X5SA-400

## Installation instruction

SHENZHEN TRONXY TECHNOLOGY CO.,LTD

We appreciate your trust and choose us.  
We will do our utmost to provide better service



Please read the instruction carefully



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# Safety instructions for use

(Please read it earnestly and operate the machine according to the safety instruction )



The Temperature is very high when the printer works. Mustn't touch the working parts or the extruder and the filaments from it .After finishing the printing, the working parts still hot.Please be patient and move the model when working parts cool as well as the model



please use the printer in an airy and spacious room



We advice that using the printer in the interior temperature is 8°C-40°C and the humidity is 20%-80%. If not,it will have a little influence on printing effect.



If emergency happens, please turn off the power firstly.



3d printers have some working parts, which is in high speed movement .Be careful!



Take care of your hands in case scatched by the harsh working parts when taking down the model.



Please wear the eye protector when installing the 3d printer or grinding the model



Please make sure the printer in a rain-free and dry environment.



Please keep children far away from the printer when it works.



We suggest don't make printer work when on one looks

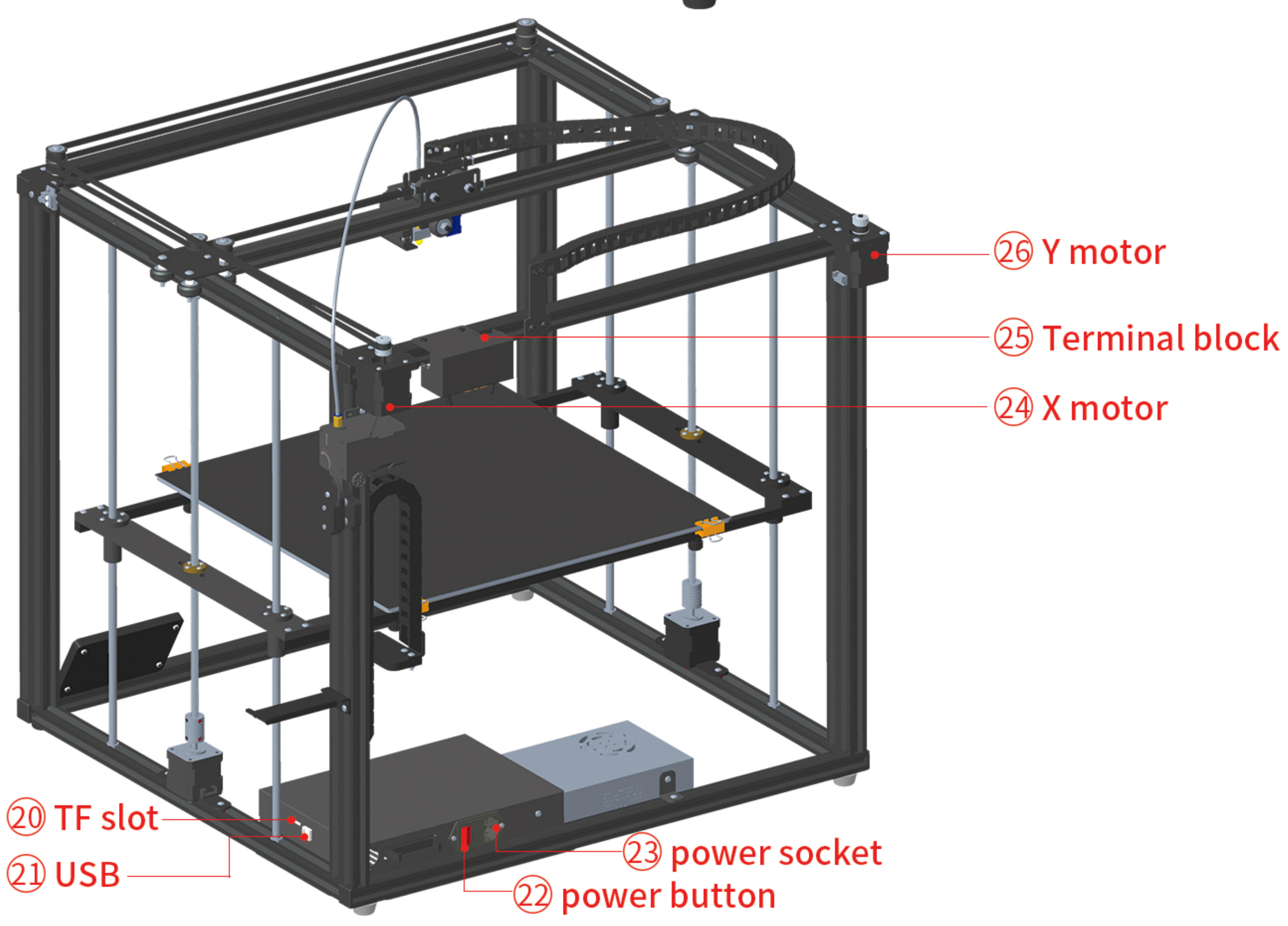
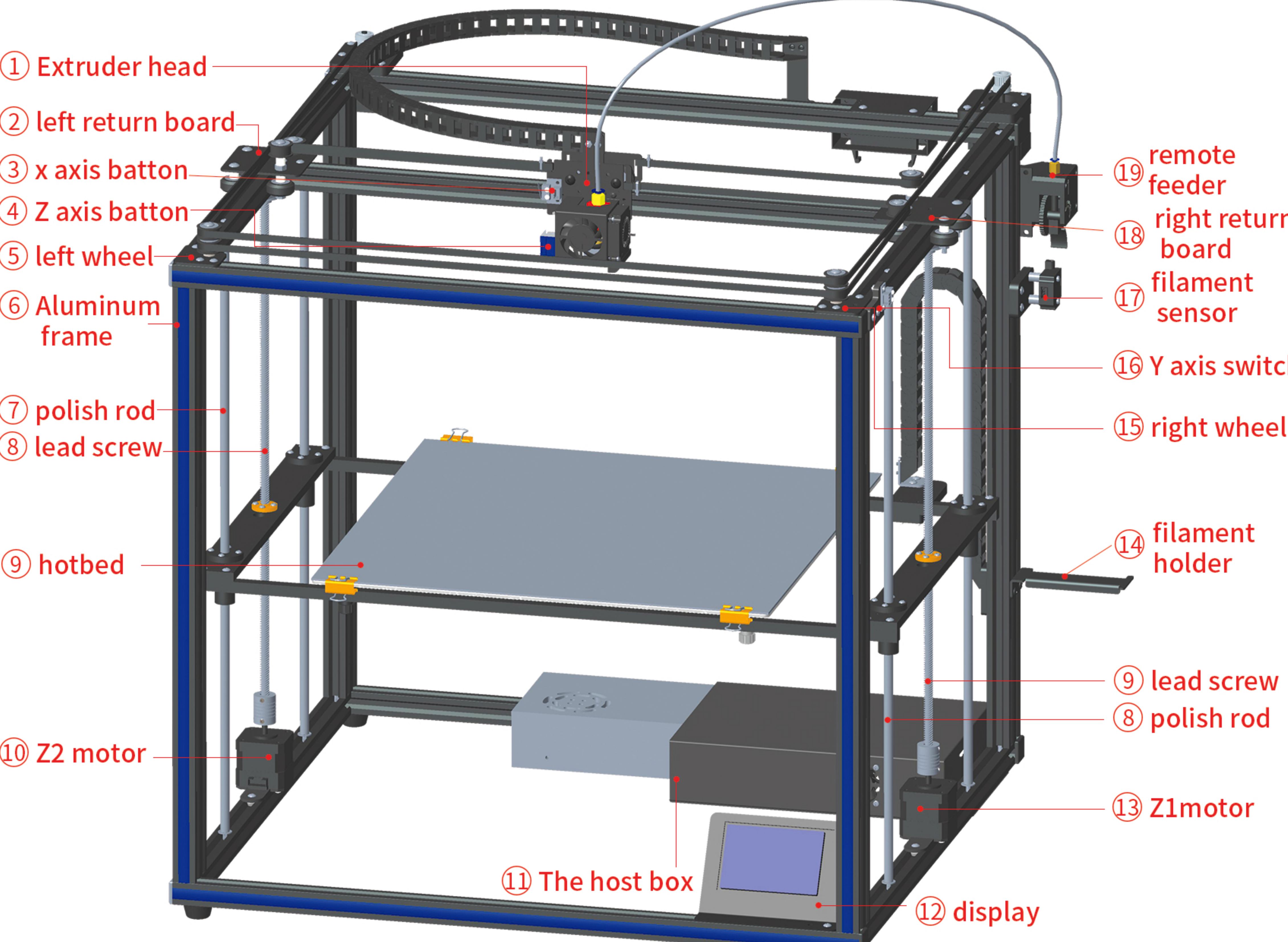
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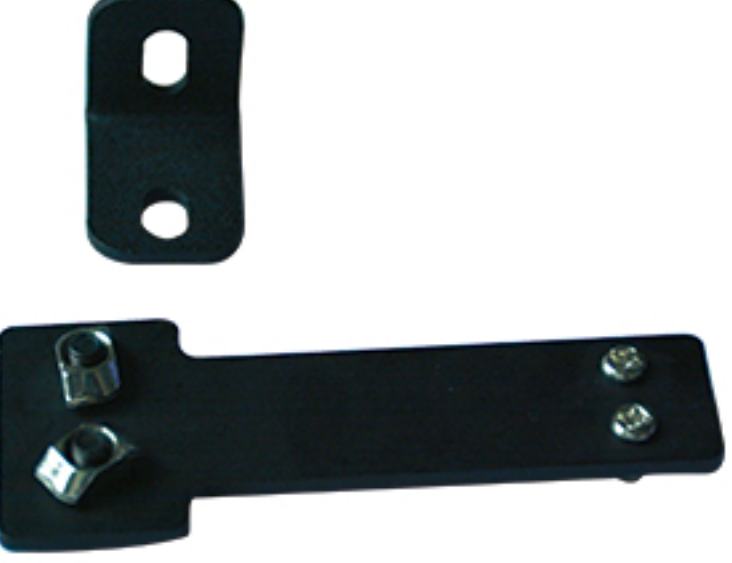

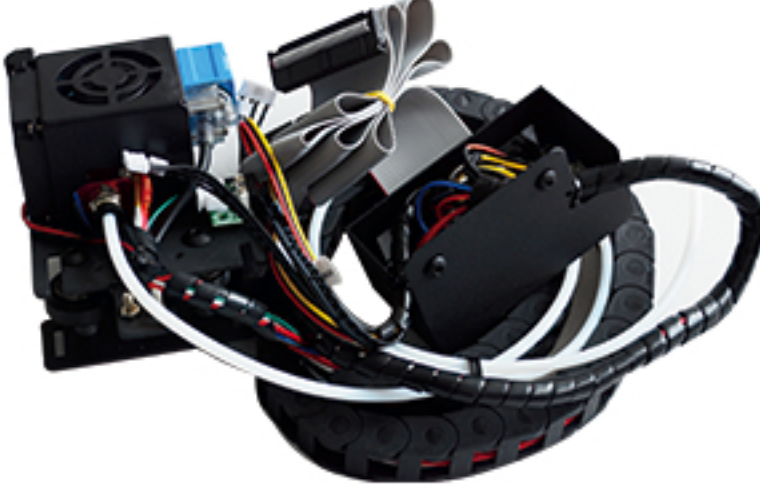









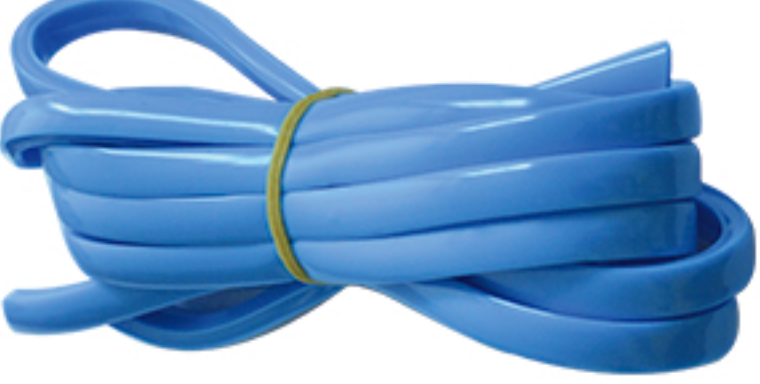

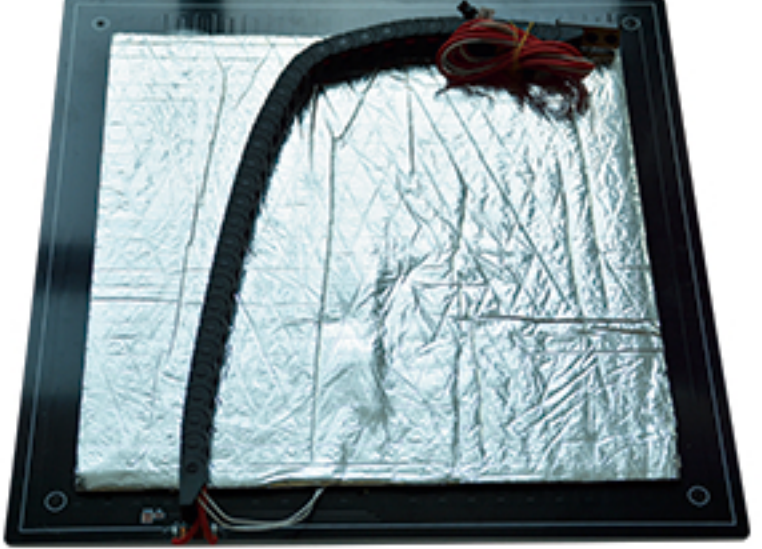
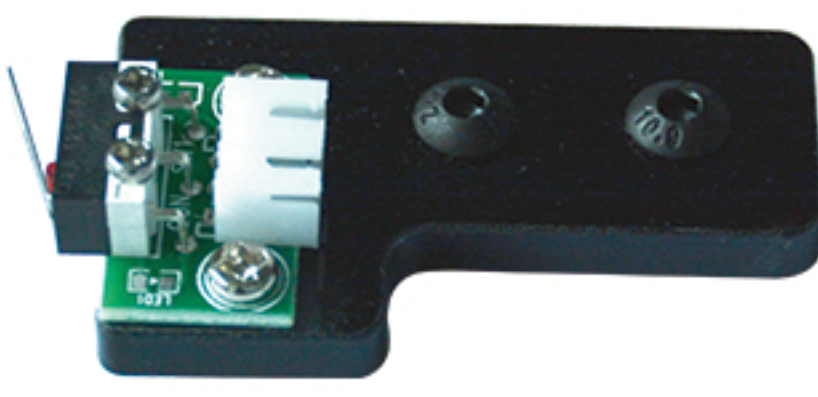






# 1. Machine parameter

Print parameter	Printing technology	FDM (Fused Deposition Modeling)
	Printg size	400×400×400 (mm <sup>3</sup> )
	Print accuracy	0.05-0.3 mm
	Print speed	20~100mm/s ( advice 60mm/s)
	Position precision	X/Y 0.0125mm, Z 0.0025mm
	Position precision	single nozzle
	Nozzle diameter	0.4mm
	Movement Speed	100mm/s
	Materials	PLA, ABS and so on
Temperature parameter	Environment Temperature	8°C - 40°C
	nozzle	260°C
	Hotbed	support
Software	Operation software	TronxyInstall
	File type	.STL, .OBJ
	Output	GCode
	Connection	TF card, USB cable
Power	input power	110V/220V AC, 50/60Hz
	output power	24V/15A DC
Physical	Machine size	723mm×623mm× 640mm
	Machine weight	≈14.3kg

# 2. Machine view



# 3.Package list

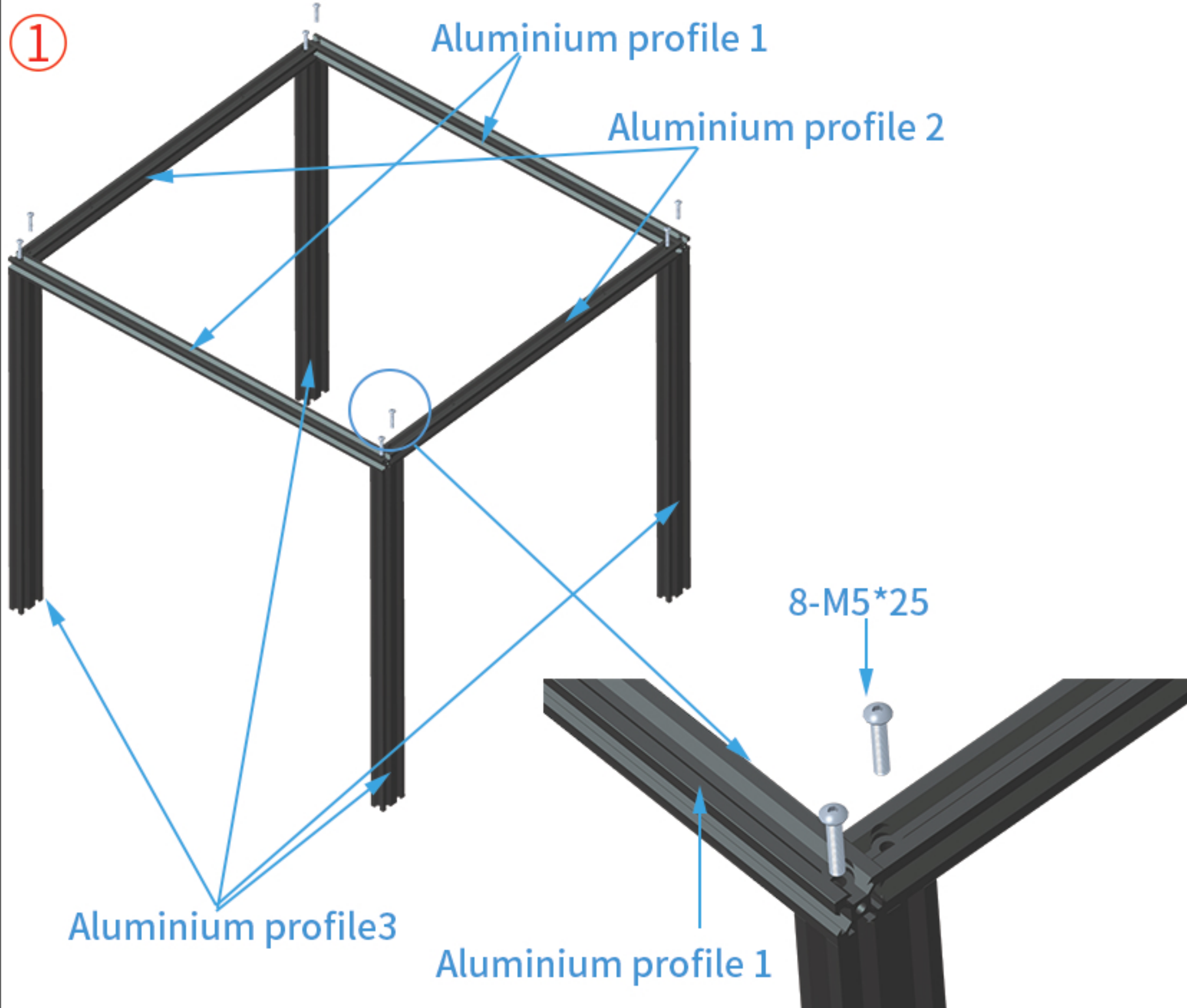
				
2040 aluminum profile 530mm 4pcs	2020 aluminum profile 554mm 1pcs 530mm 4pcs 600mm 4pcs	footlock/beam 2pcs	lead screw 2pcs sliding rod 4pcs	screw kits 4bags
				
LAngle code 1pcs Towline holder 1 pcs	Left retrn board Right retrn board	extruder	left wheel & right wheel	Y motor & X motor
				
Z1 motor Z2 motor	remote feeder	accessory kits 12pcs	the host box	beit kits
				
filaments (rabdom color)	power line	aluminnumprofile seal (random color)	Print platform sticker	Hotbed
				
Y axis switch	USB cable	tool kits	card reader&Tfcard	Towline holder
		<p>Please check all of the parts. If you have any questions , please feel free to contact us.</p>		
Filament sensor	Installation instruction			

# 4 Product assembly

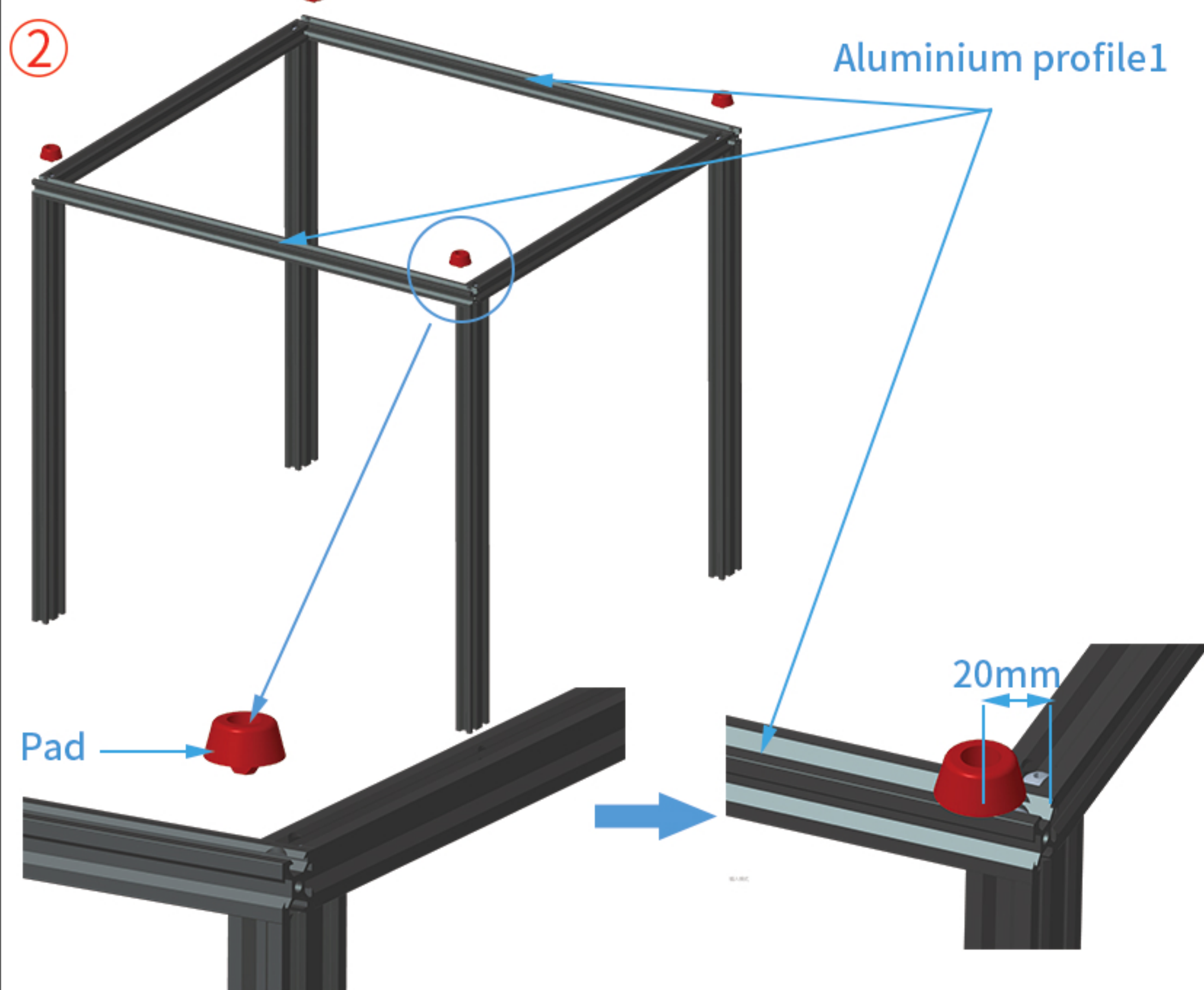
## Step 1. Assemble base frame

Assemble parts specifications and quantity:

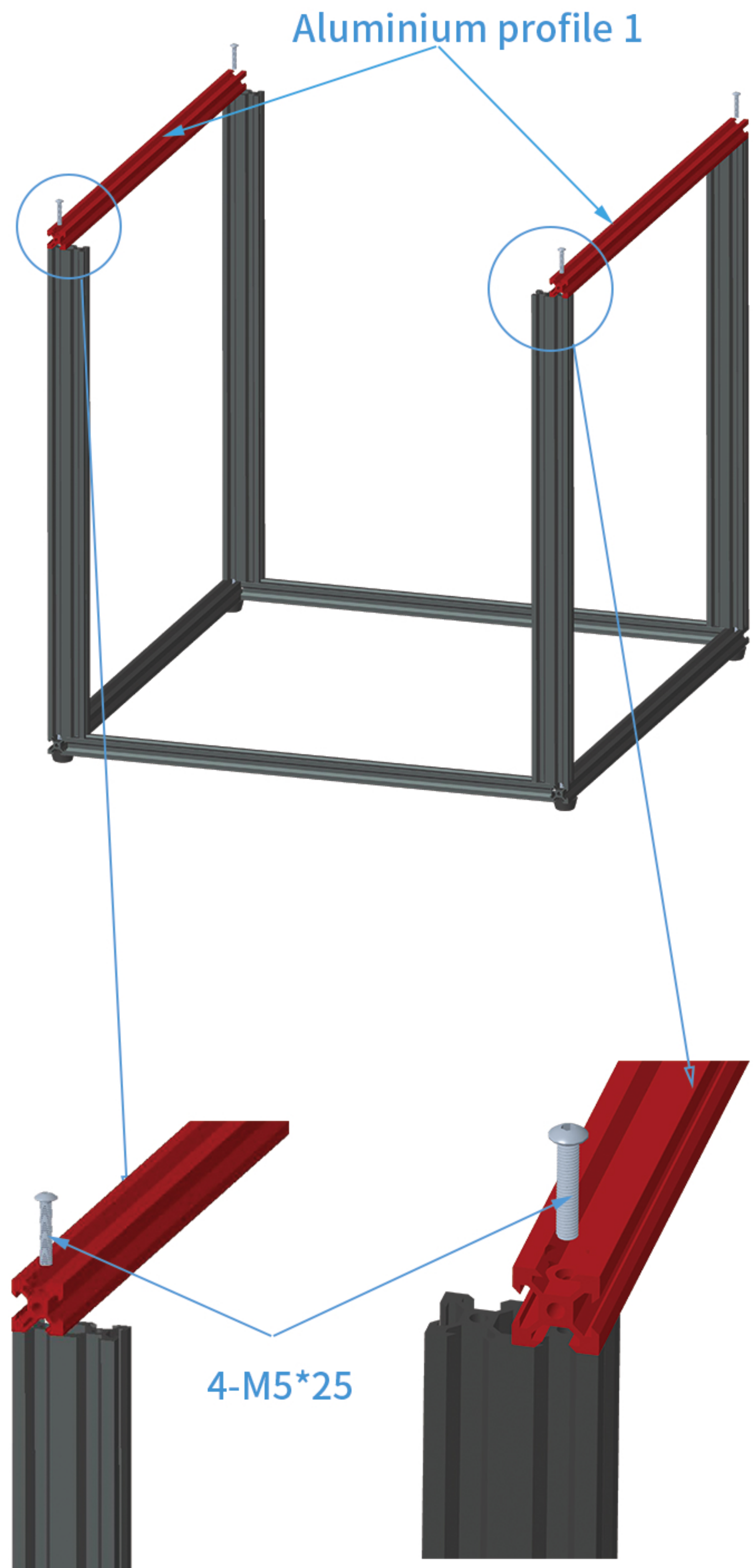
				
Aluminium profile 1 20*20*600 mm 4pcs	Aluminium profile 2 20*20*530mm 2pcs	Aluminium profile 3 20*40*530mm 4pcs	Pad 4pcs	Screw RM5*25 12pcs



Assembly technique of M4 boat nuts: first, align the M4 nut with the aluminum profile groove and put it into the aluminum profile groove. Unscrew with the screwdriver and release the M4 boat nut to cross




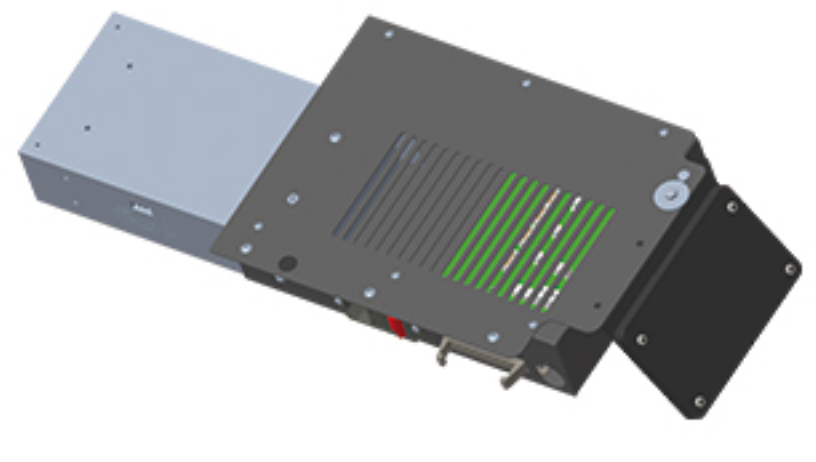

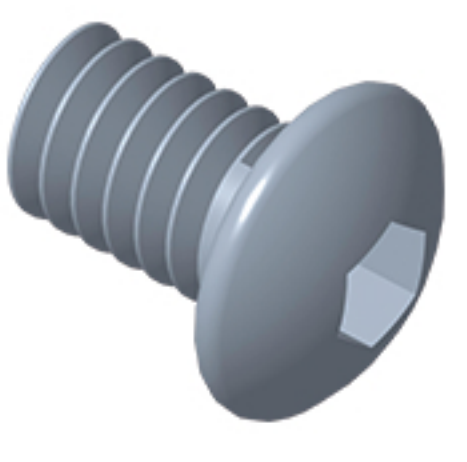
③ **Note: Do not tighten too much, enable they can be adjusted in further step.**

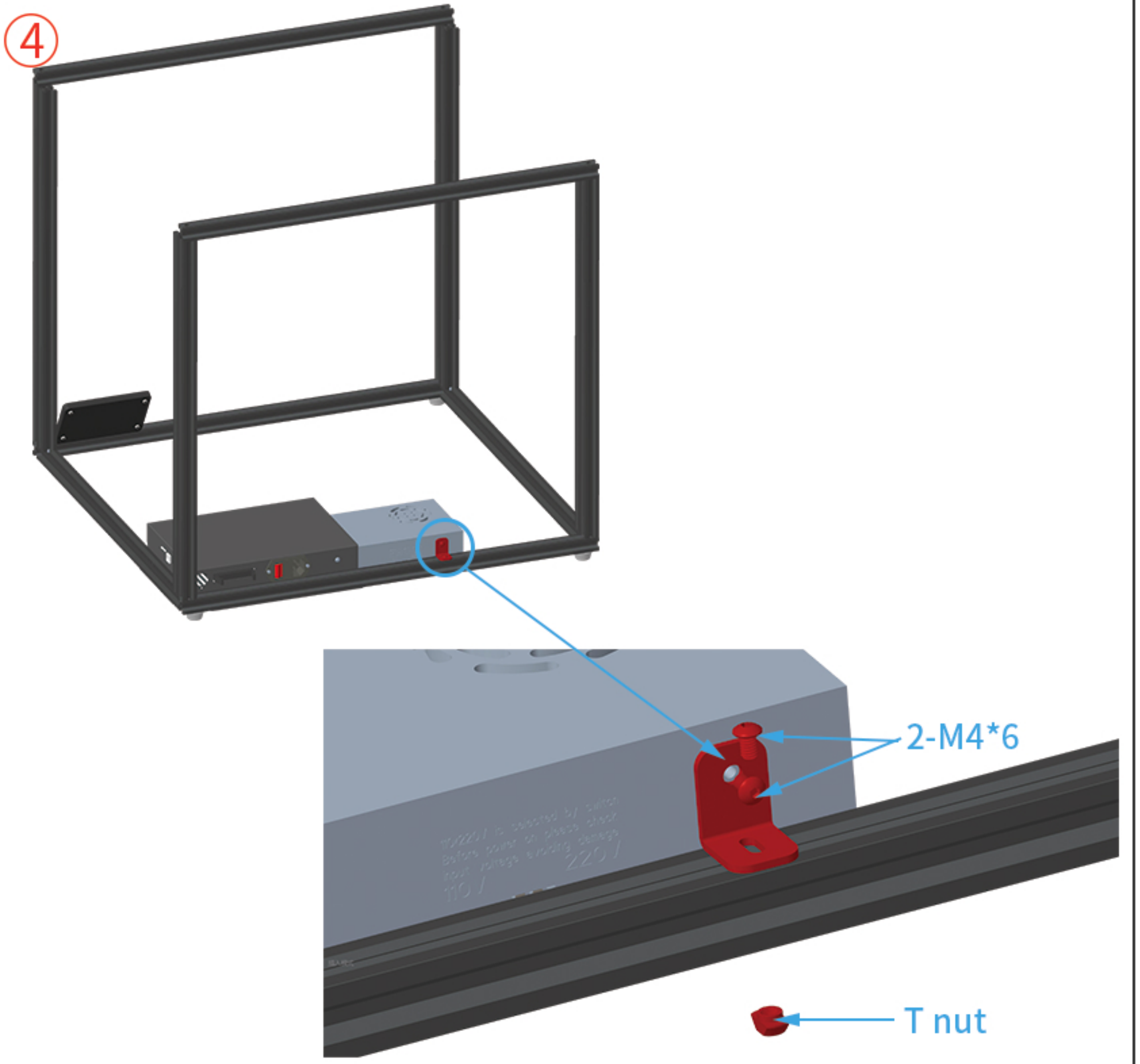
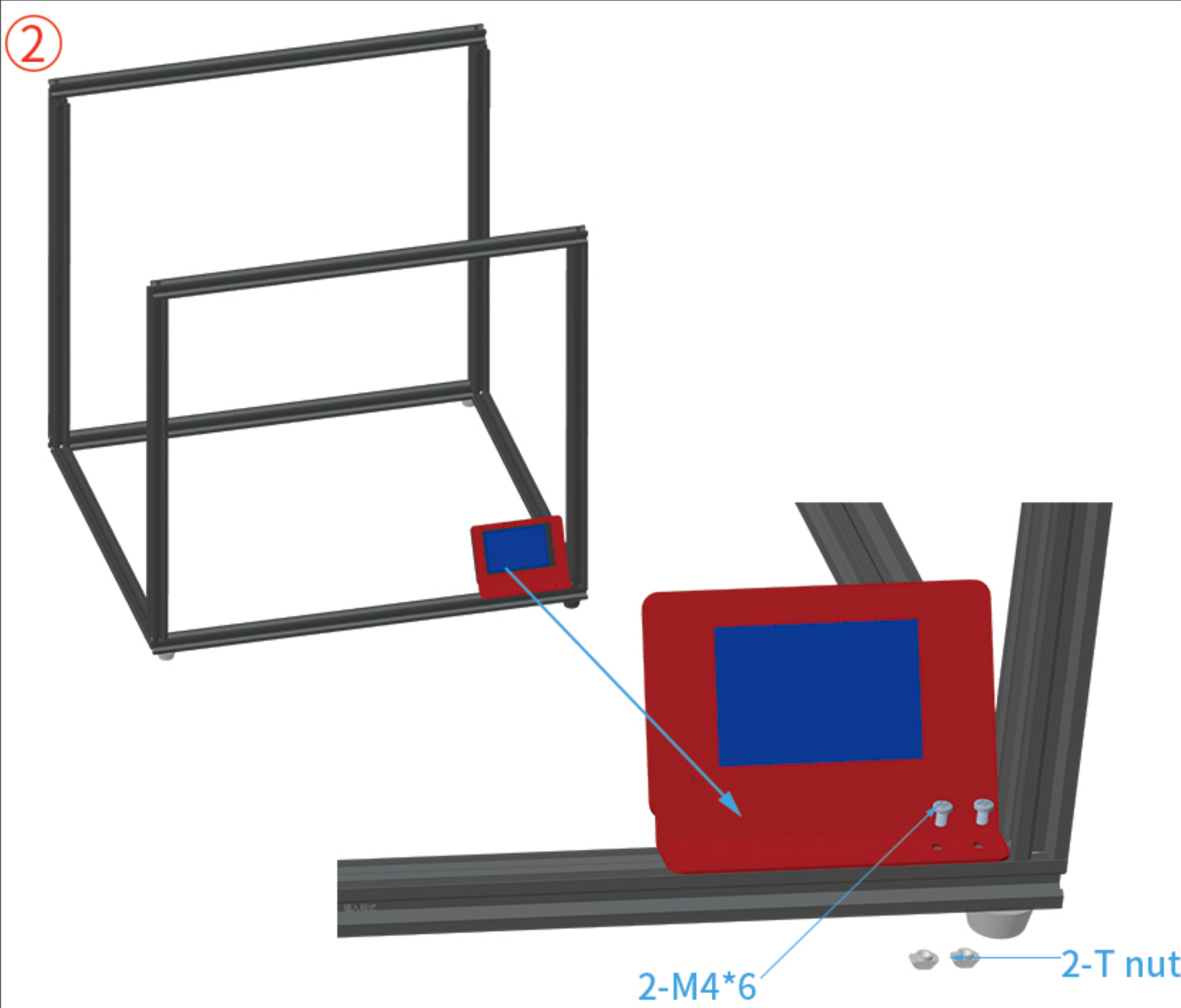
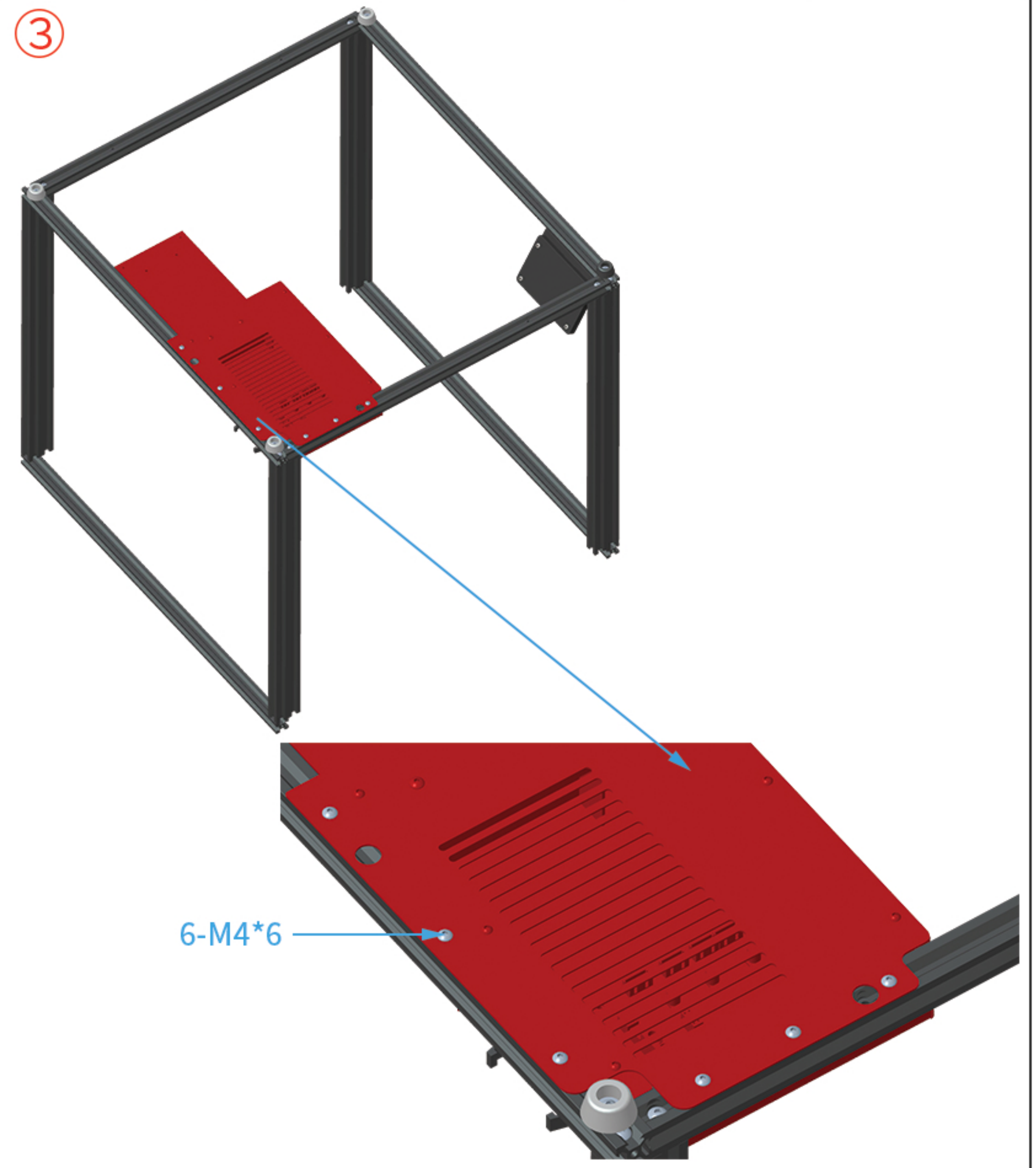
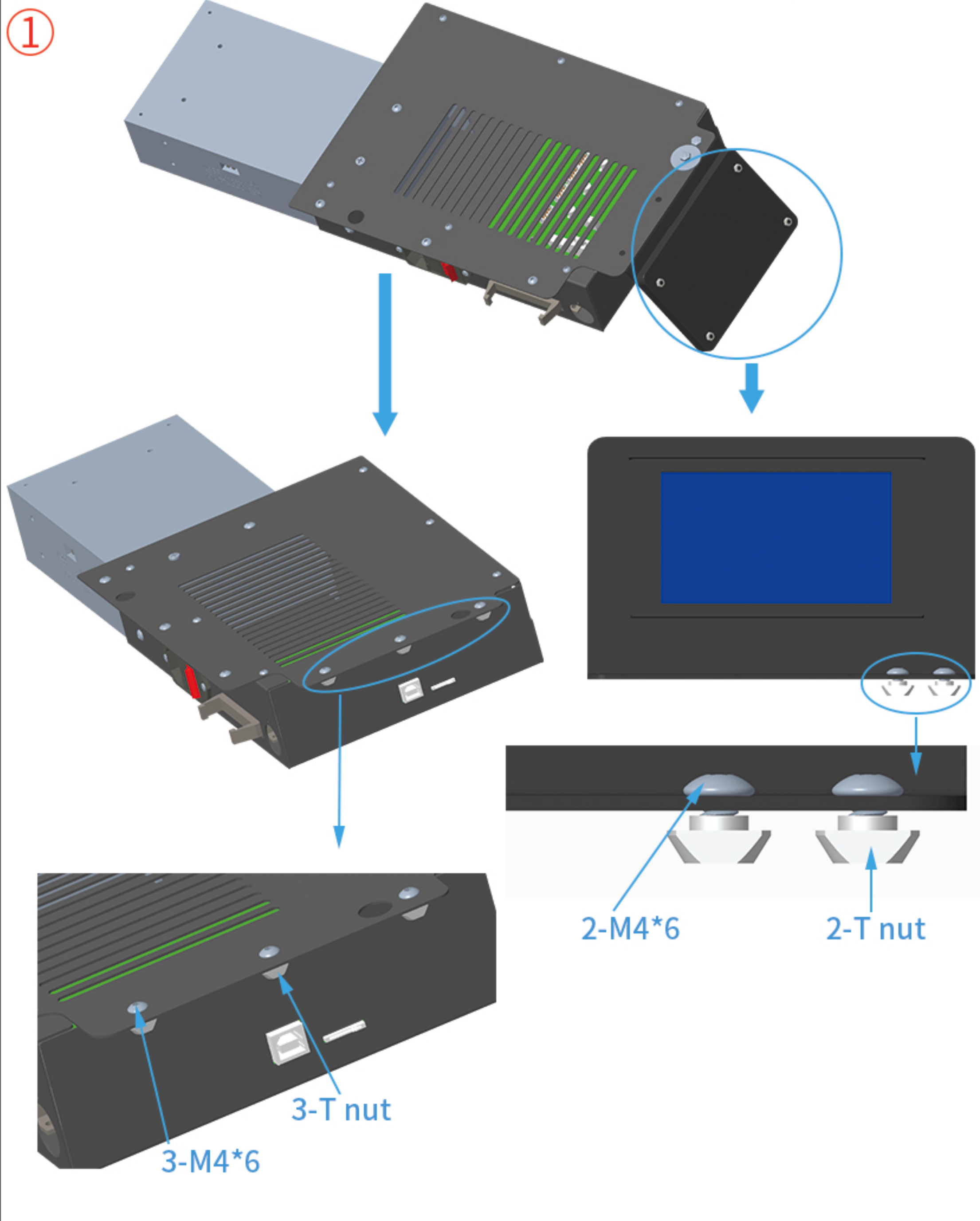




# Step2: Assemble host box

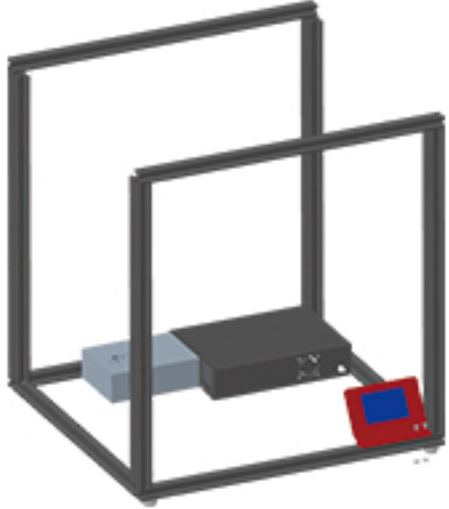
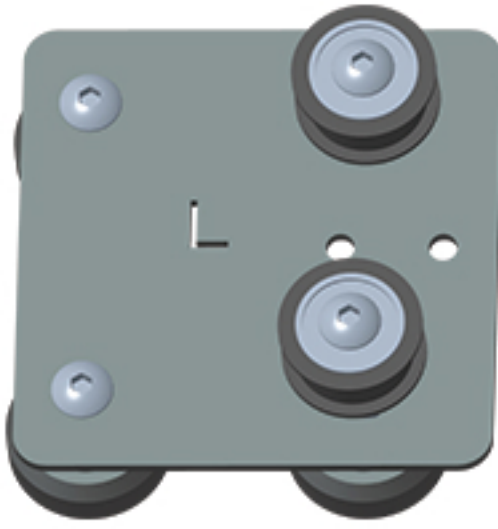


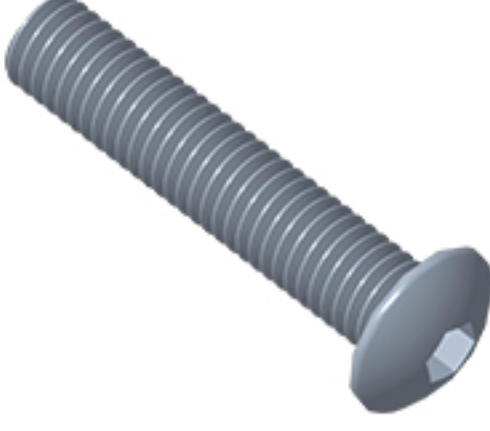
Assemble parts specifications and quantity:

				
Aluminium Frame	The host box 1pcs	L Angle code 1pcs	T nut M4 6pcs	screw RM4*6 7pcs

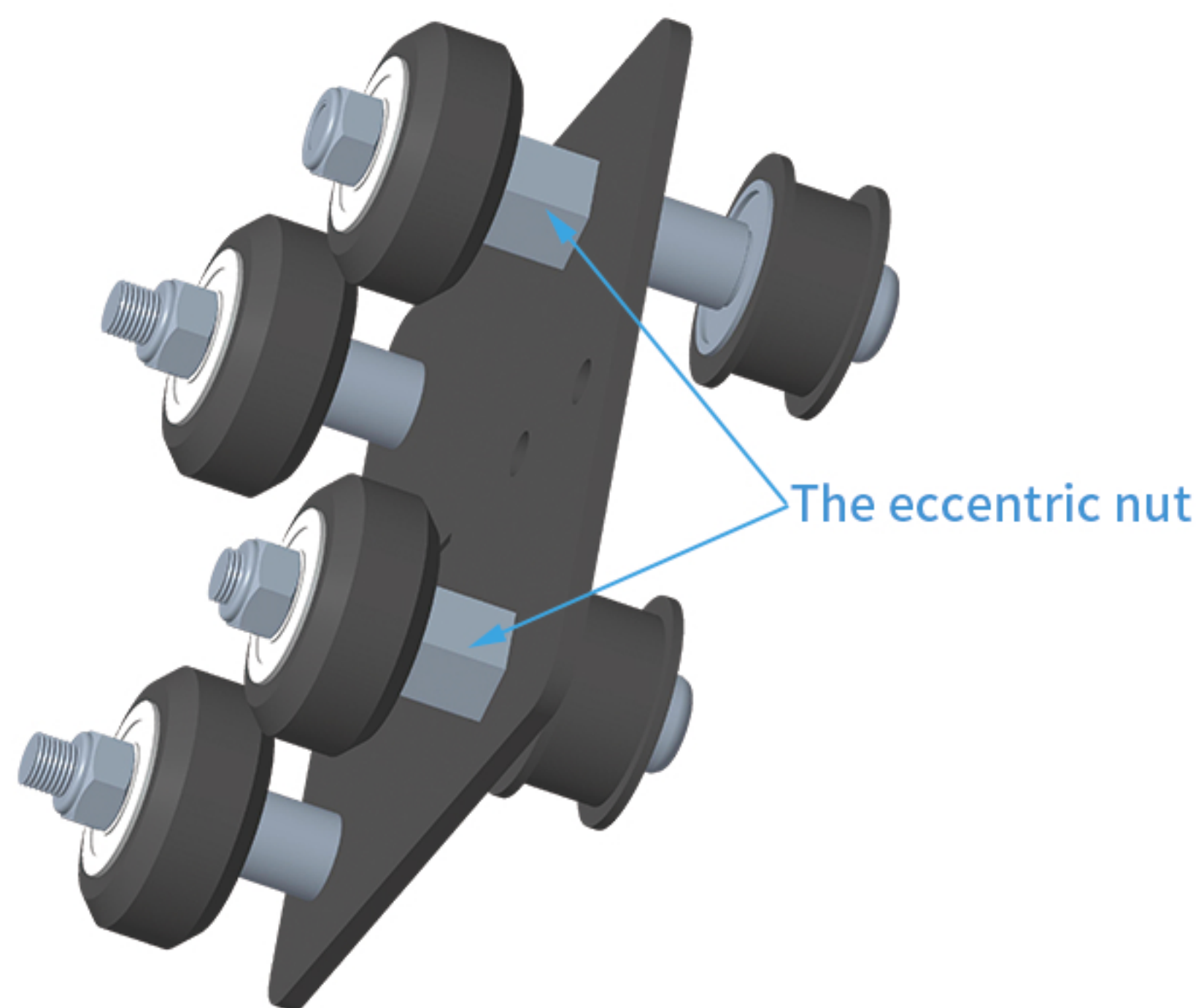
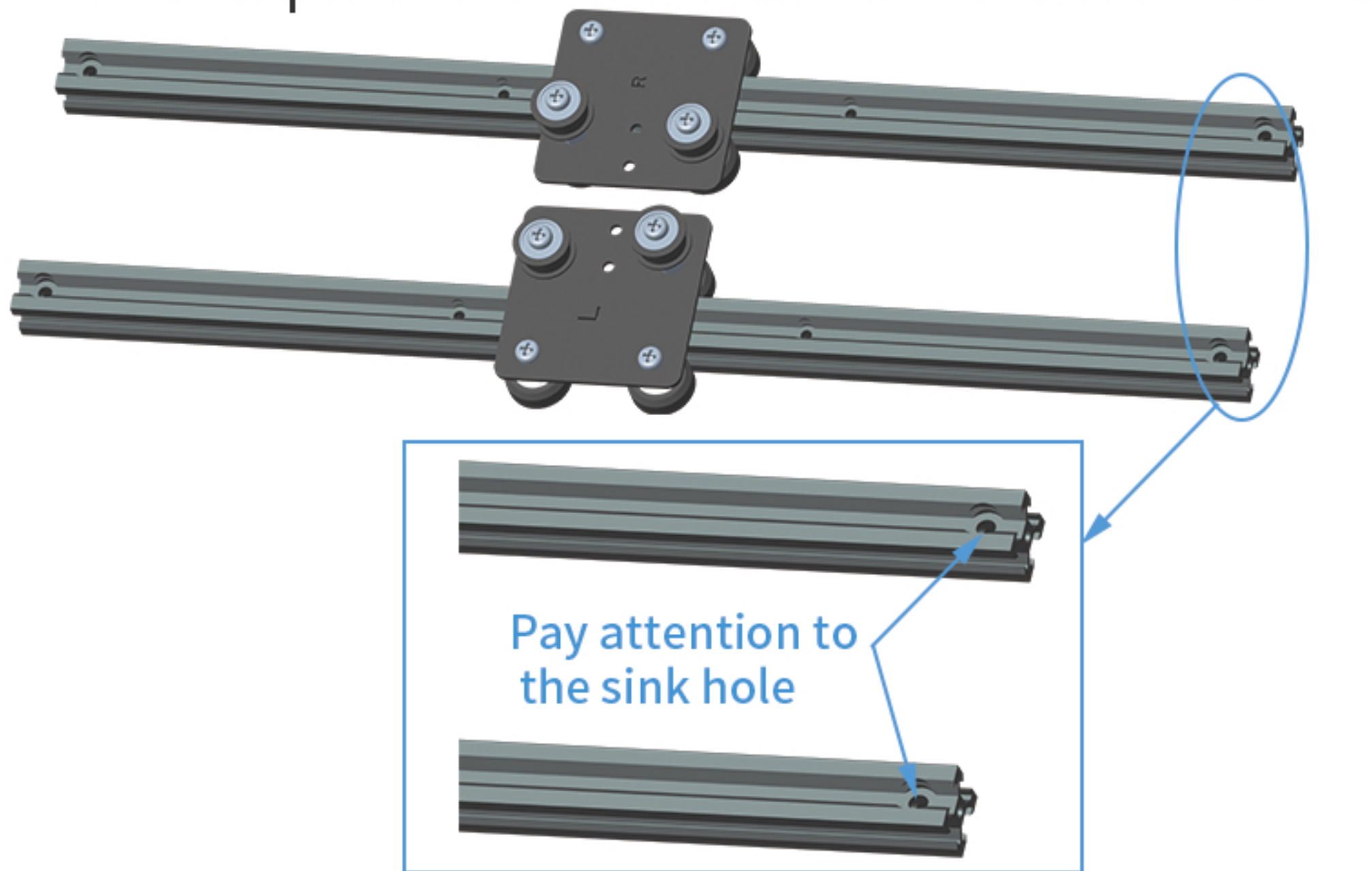


## Step3: Assemble slider plate

Assemble parts specifications and quantity:

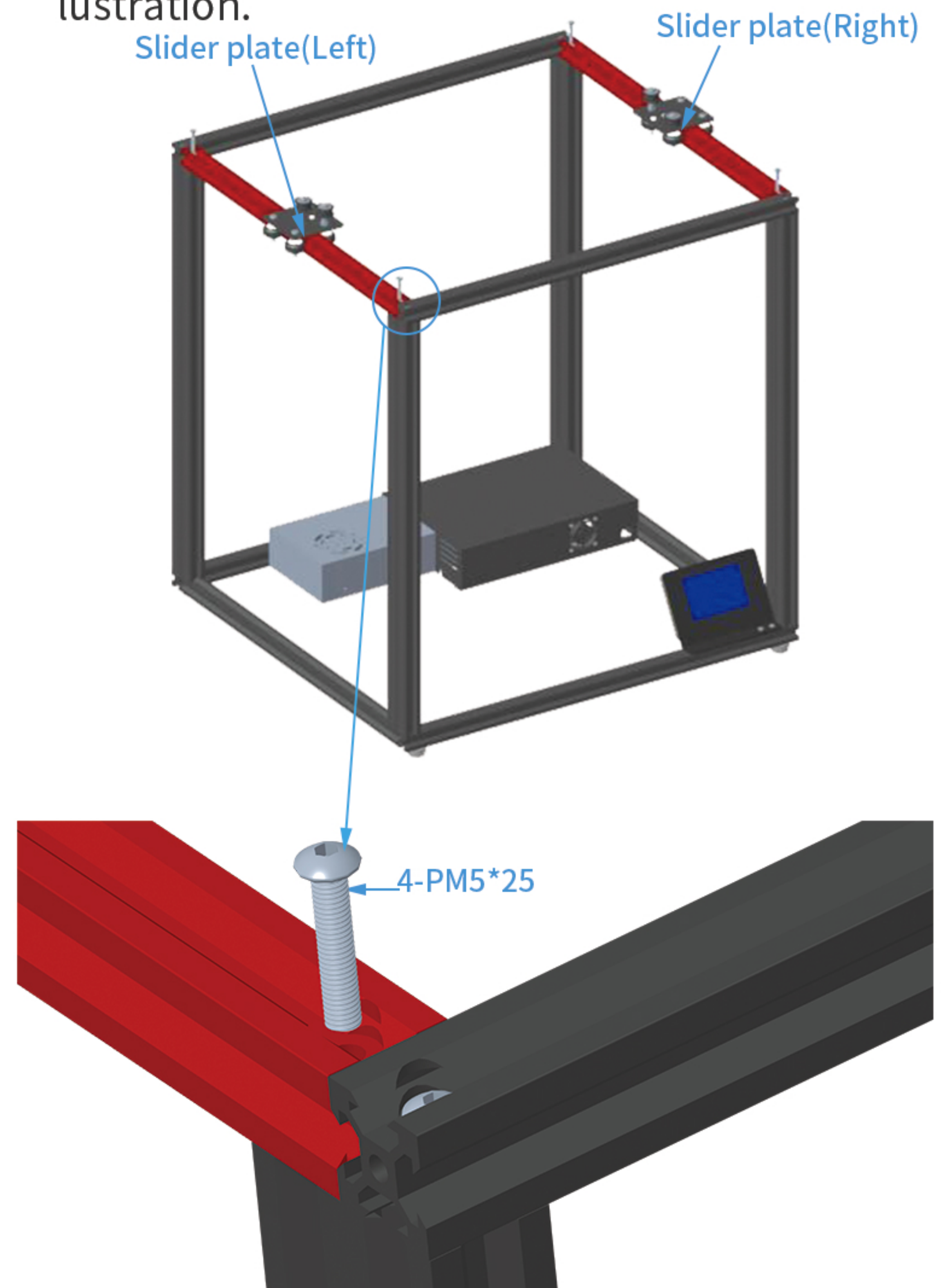
				
Aluminium Frame	Left retrn board 1pcs	Right retrn board 1pcs	Alu. profile 2 20*20*530mm 2pcs	Screws RM5*25mm 4pcs

① Note: The wheels are on the side without holes, the slide plate is on the side with the four holes.



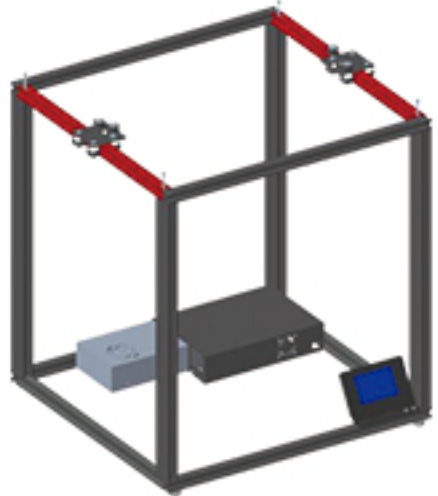

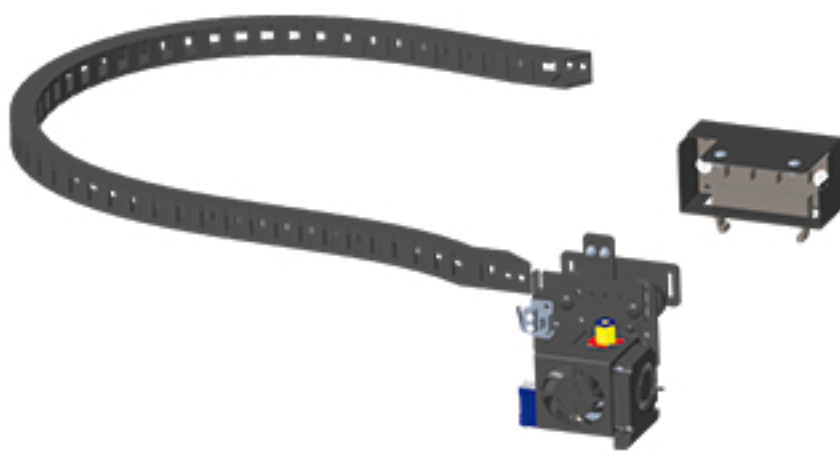

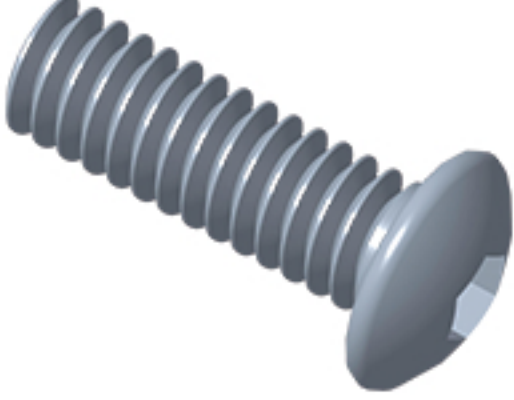
Adjust pulley clearance by rotating eccentric nut

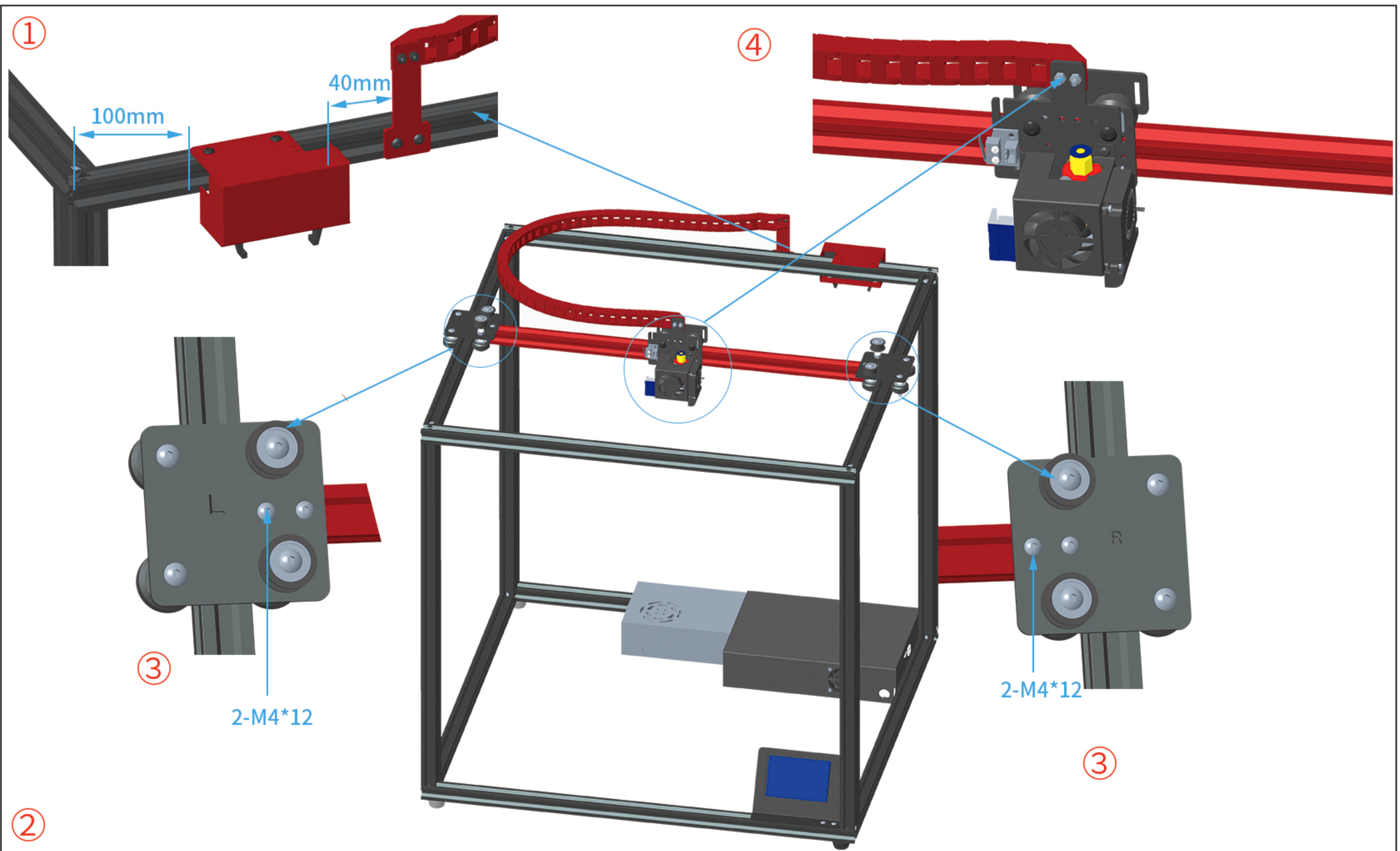
② Put the aluminum 2 components into the end of the aluminum frame 3 of the bottom frame, then secured by 4pcs screw RM5\*25, as same as the illustration.



## Step 4: Assemble printing head

Assemble parts specifications and quantity:

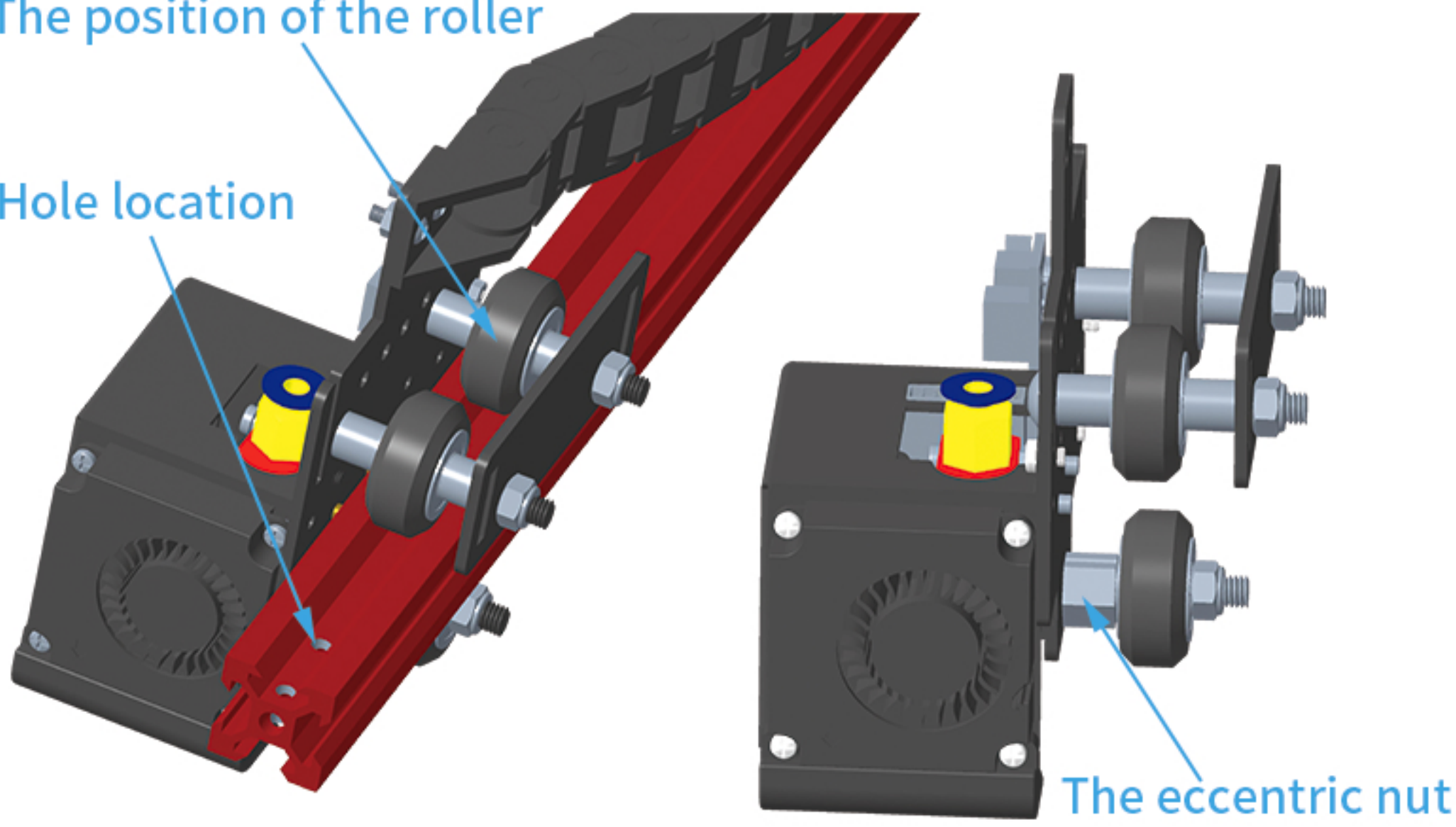
				
Aluminium frame	Alu. Profile 4 20*20*554 mm 1pcs	Printing head component 1pcs	Towline holder 1pcs	Screws RM4*12mm 4pcs



②

The position of the roller

Hole location



Insert the aluminum profile 4 into the printing head component, same as the illustration. Adjust pulley clearance by rotating eccentric nut.

As shown, install the aluminum 4 parts to the middle of the right and left slide plate components on base frame, with screws RM4\*12, same as the illustration. Move the aluminum profile 4 front and back, make sure it can move freely, then lock the screw RM4\*12, remove the aluminum 4, ensure it can move freely, lock the screw RM5\*25 of the aluminum 2, move the aluminum 4 again to make sure the movement is flexible. Lock the screws RM5 \* 25 of aluminum profile 2, move the aluminum 4 again to make sure the movement is flexible, otherwise, please adjust it again, make sure the sliding table is flexible and without gap shaking after locking the screws

## Step 5: Assemble XY axis motor and wheel

Assemble parts specifications and quantity:



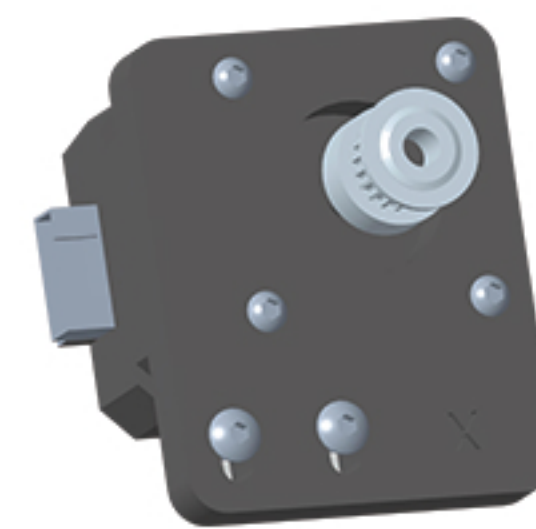
Framework



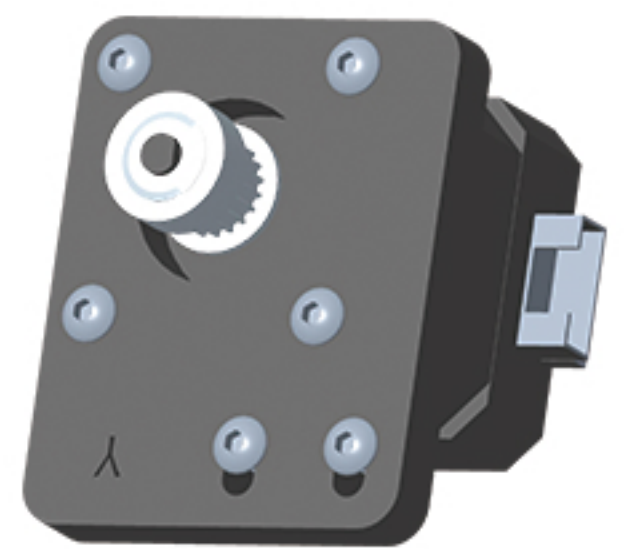
Right wheel 1pcs



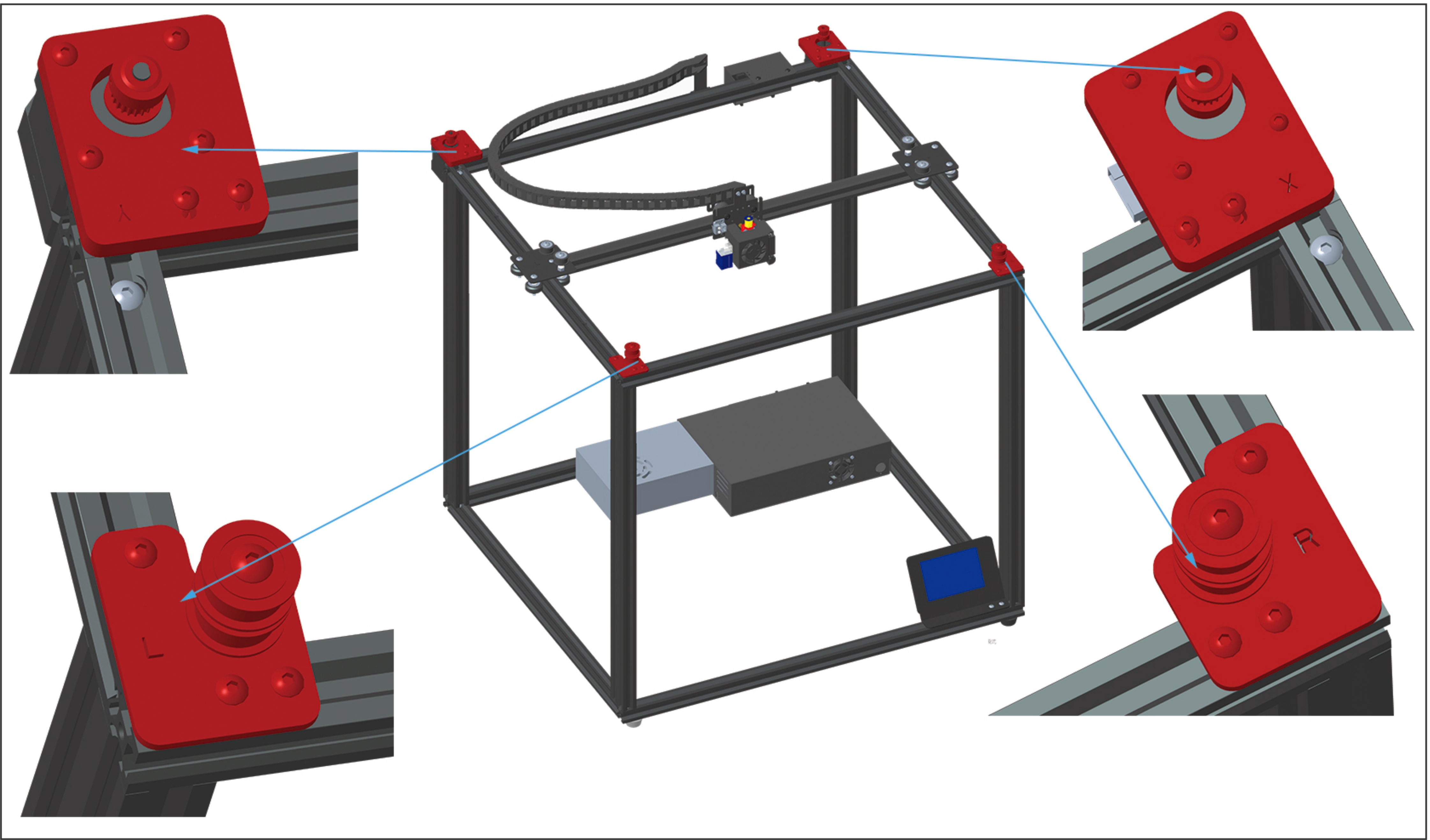
Left wheel 1pcs



X Motor 1pcs

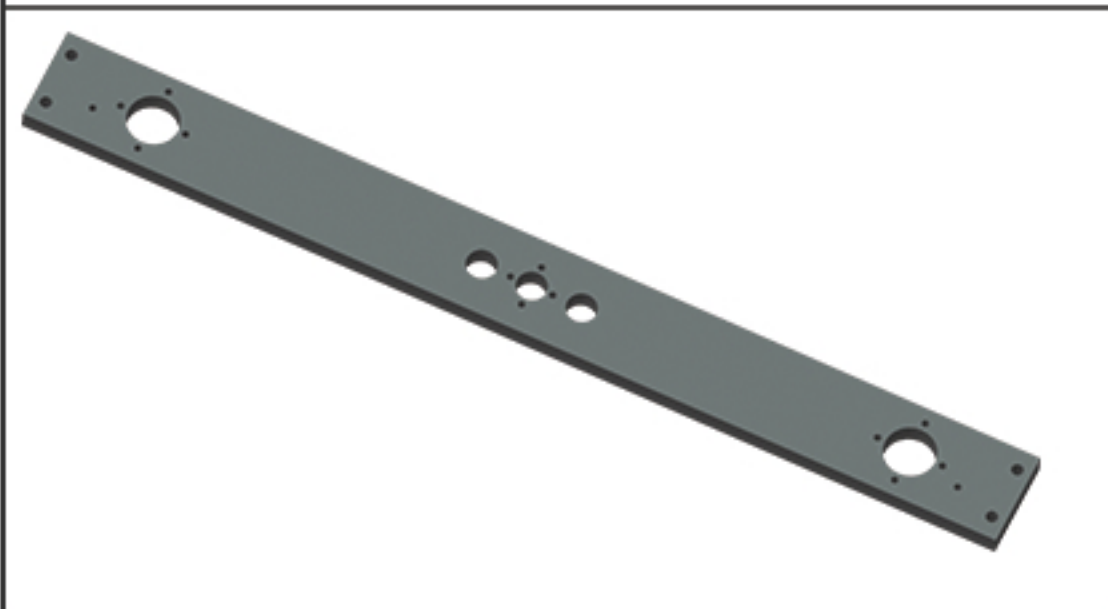
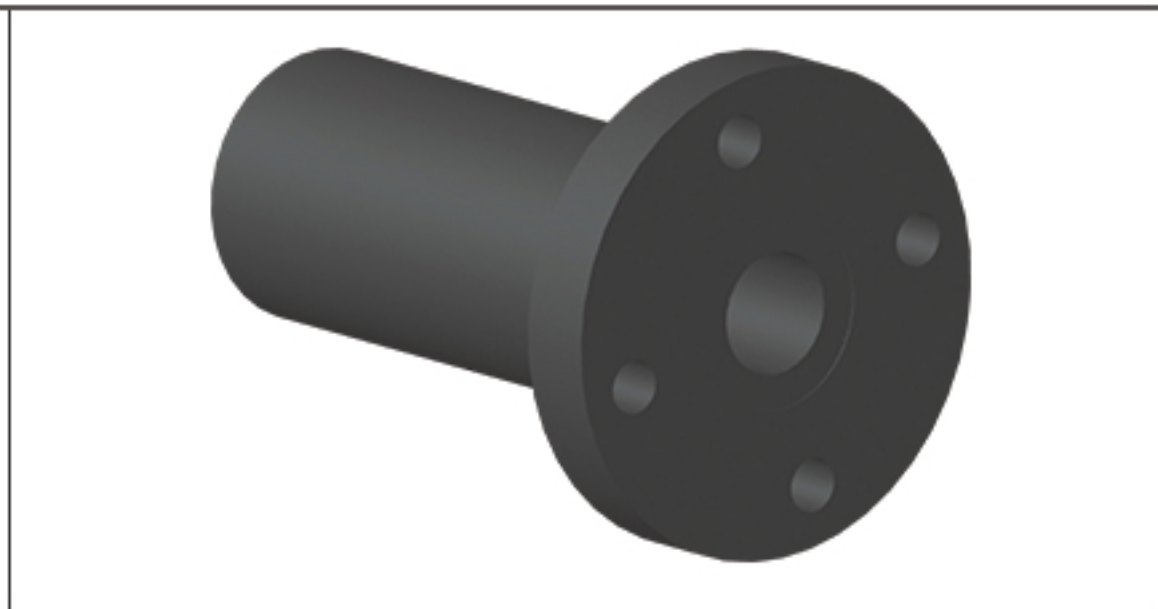
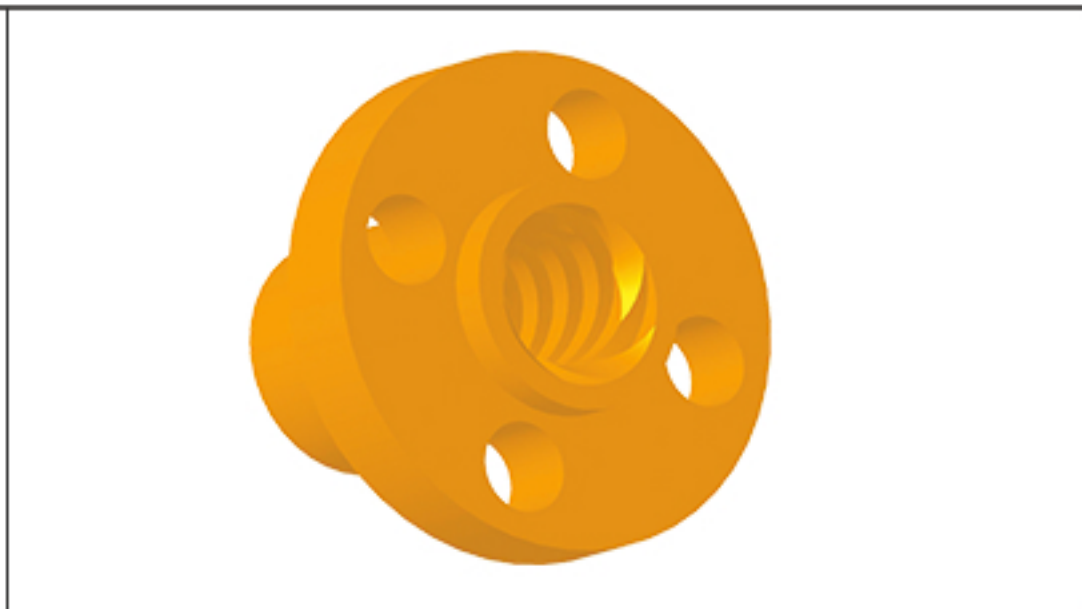
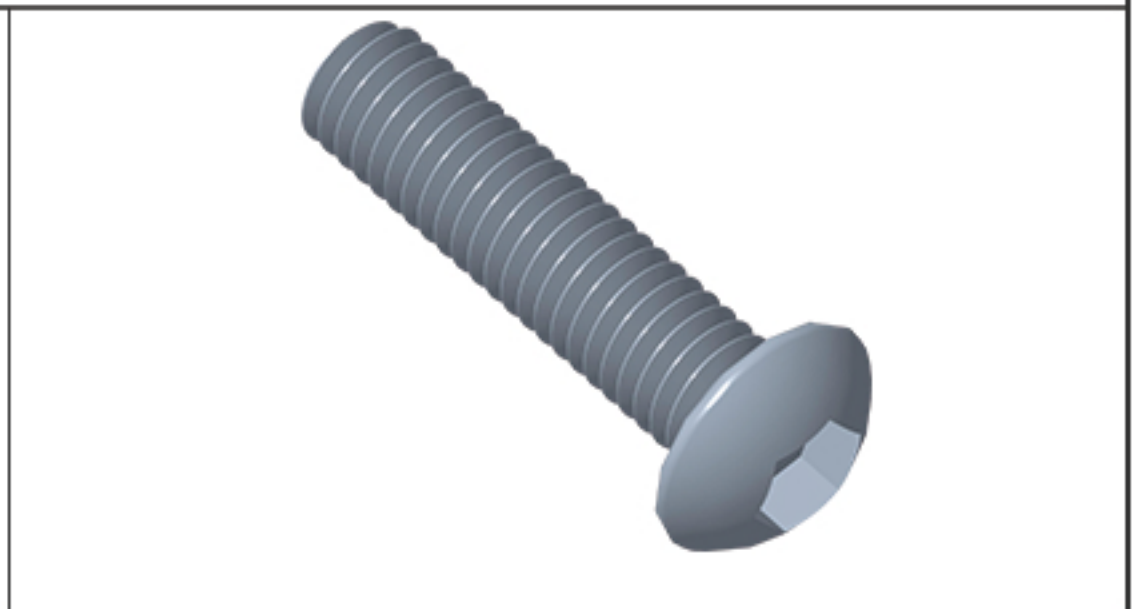


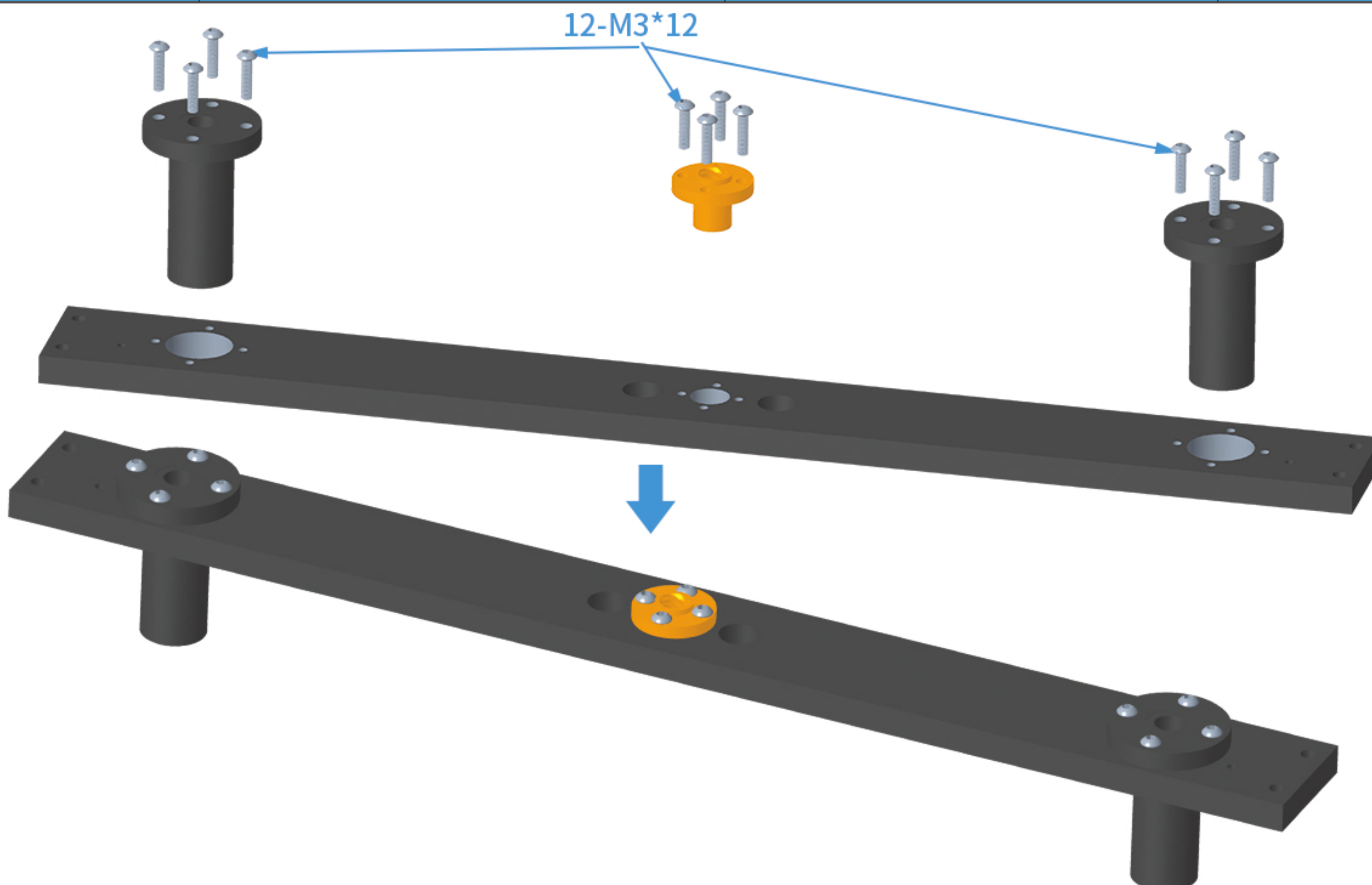
Y Motor 1pcs



## Step 6: Assemble bearings and Z-axis motor

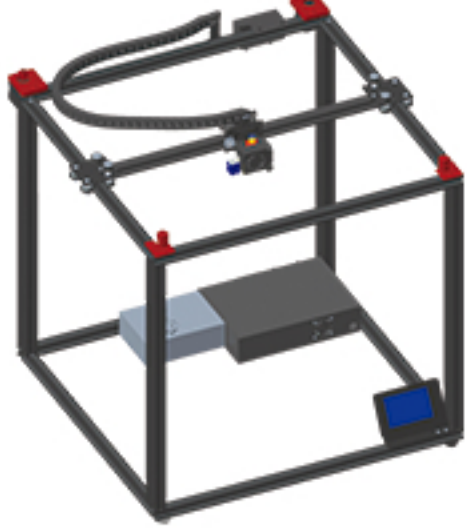
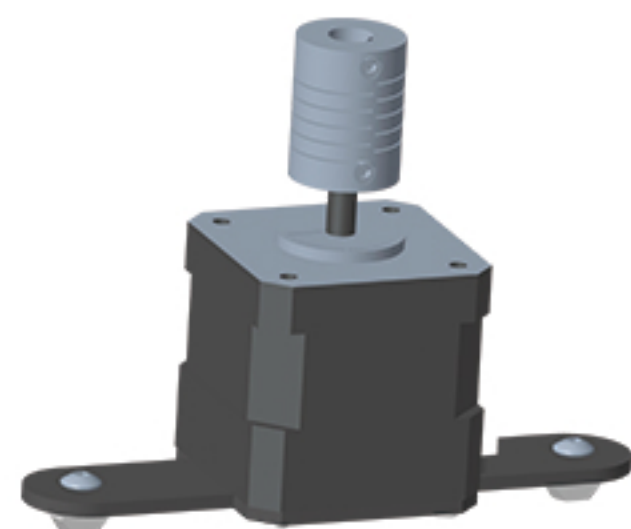
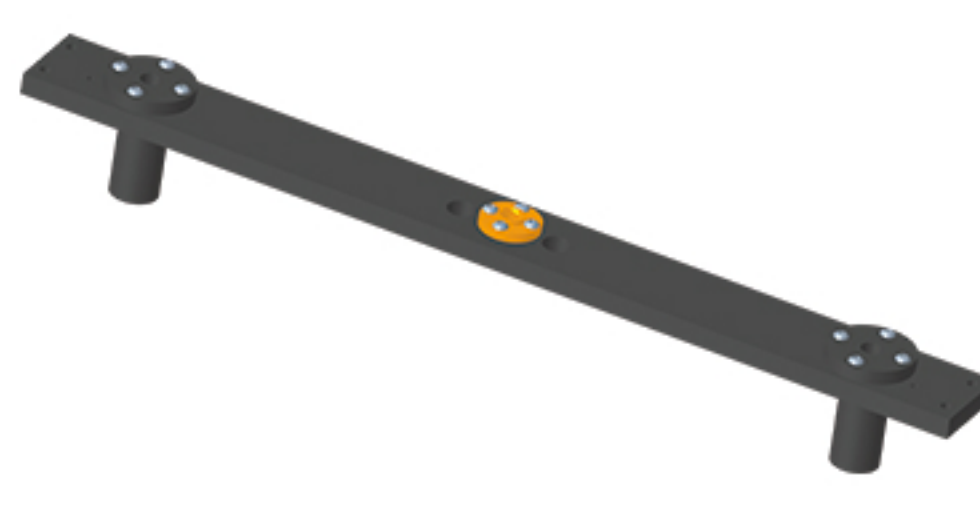
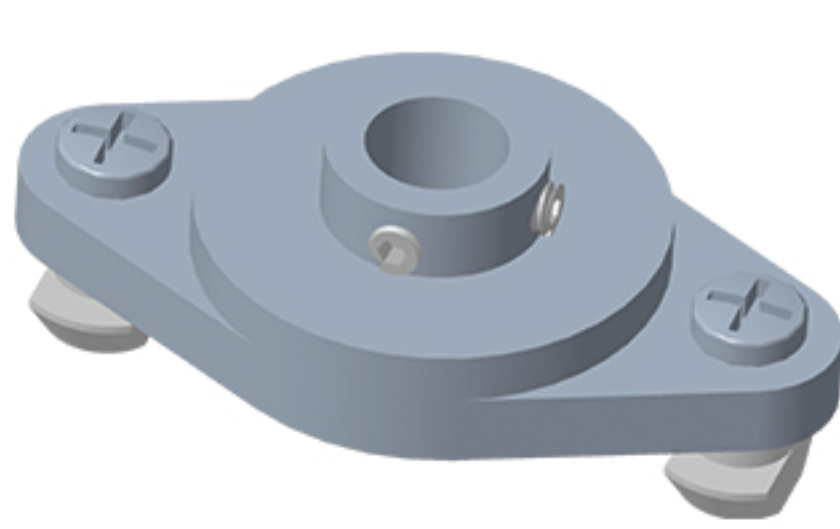
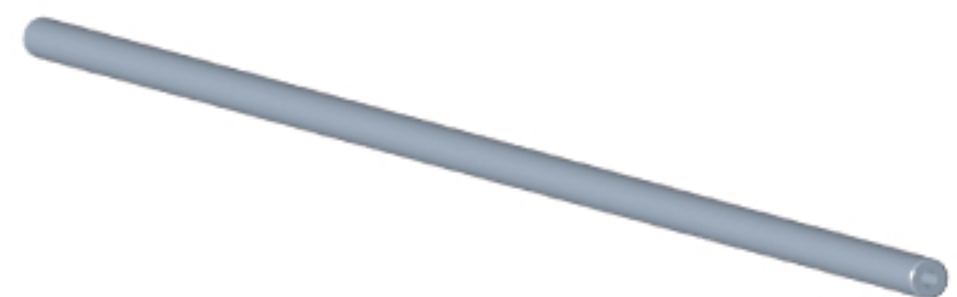

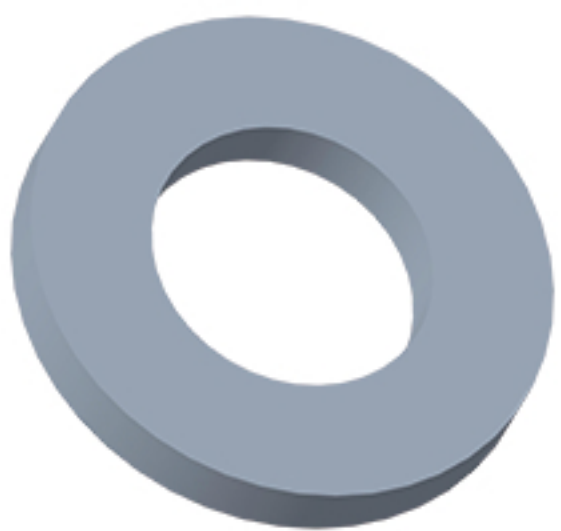
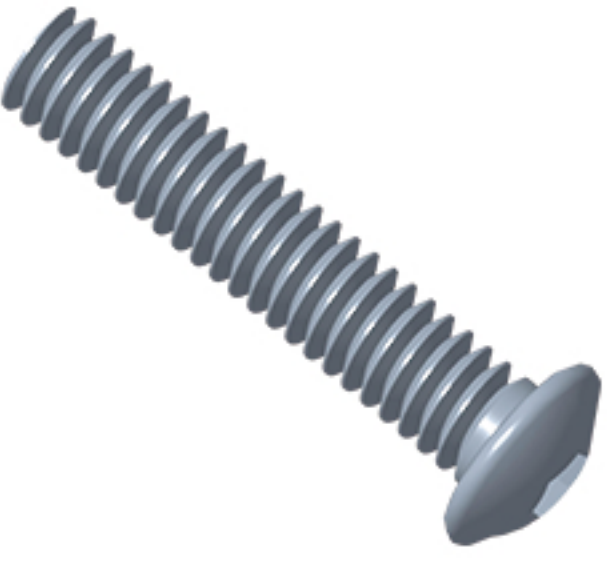
Assemble parts specifications and quantity:

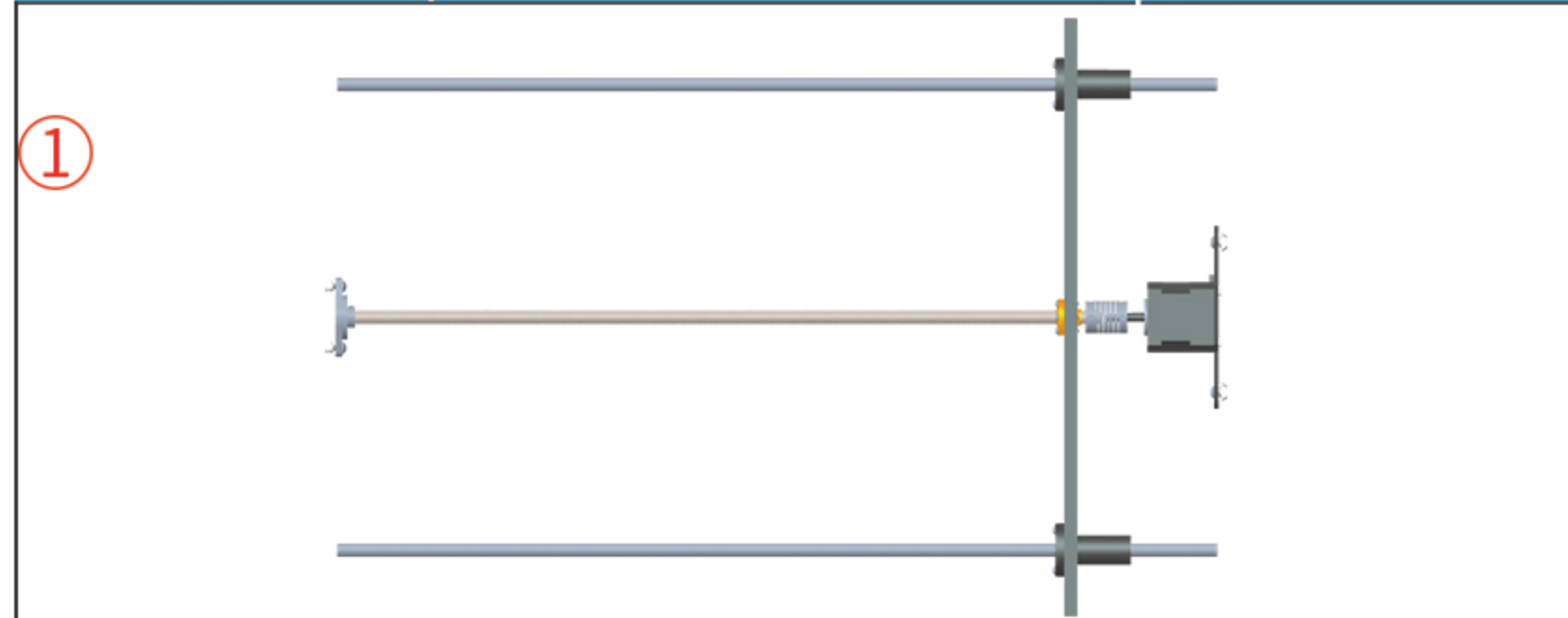
			
<p>Z fixed plate 2pcs</p>	<p>Flange bearing 4pcs</p>	<p>Copper Nut 2pcs</p>	<p>Screws RM3*12 24pcs</p>



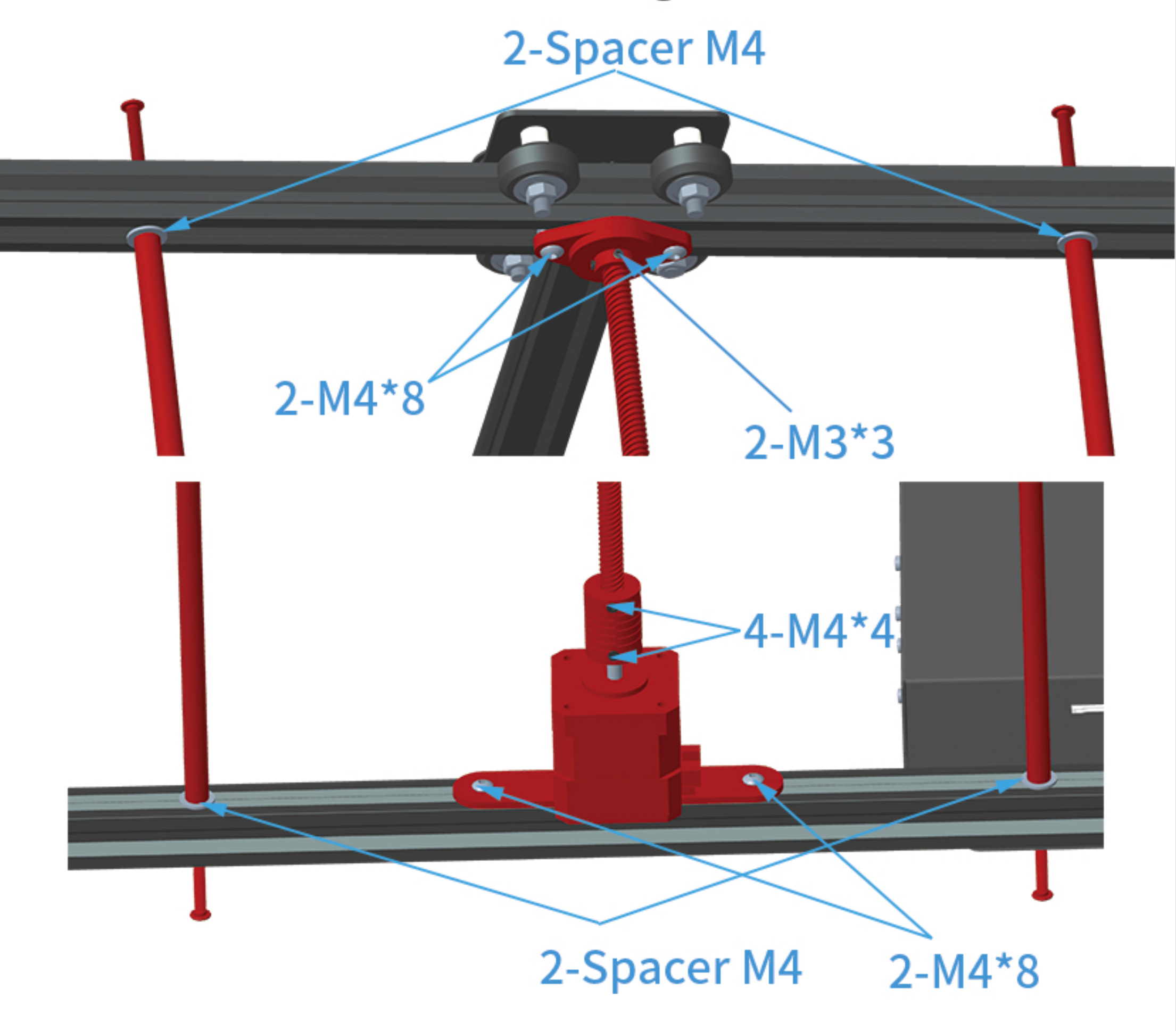
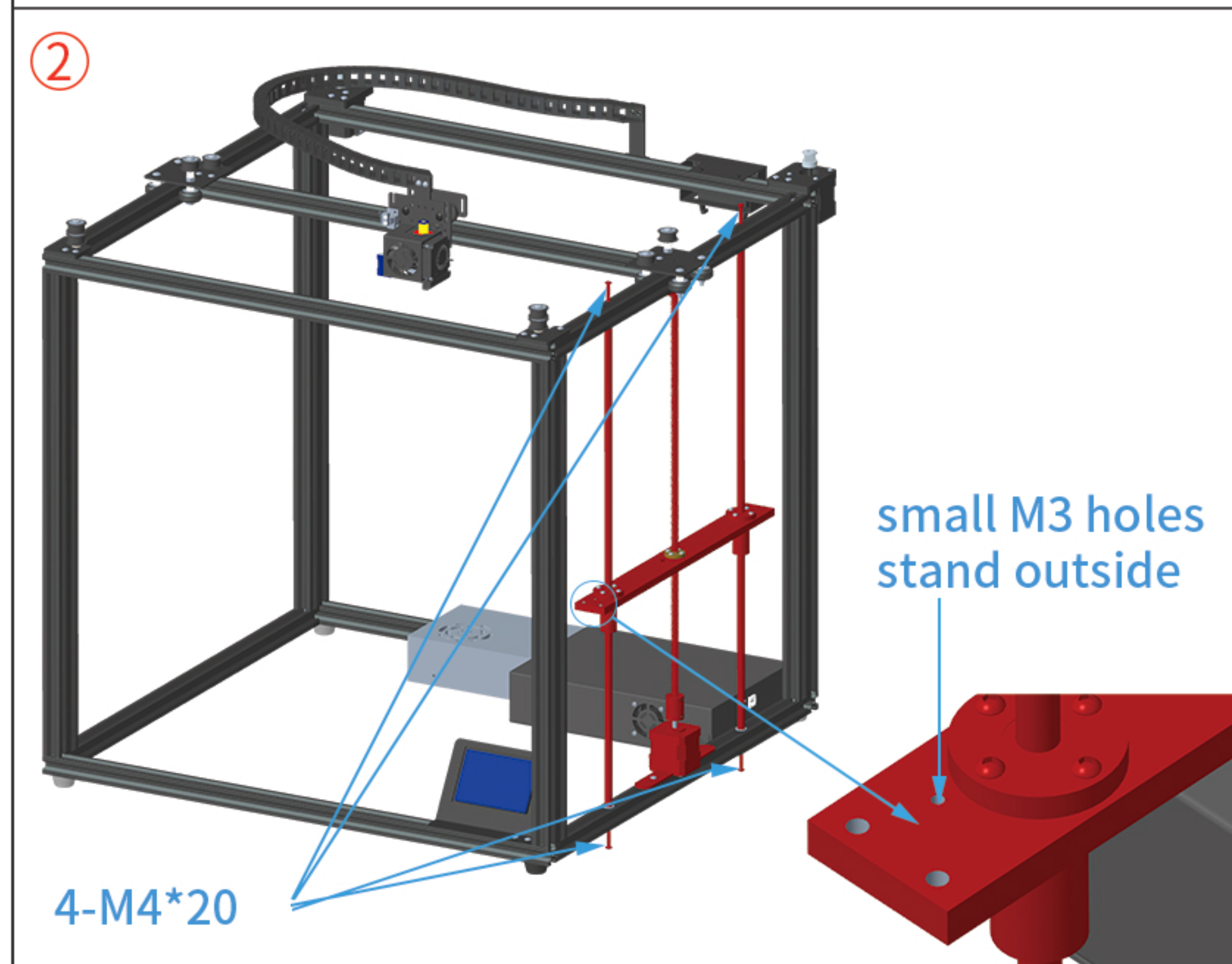
# Step 7: Assemble Z axis component

Assemble parts specifications and quantity:

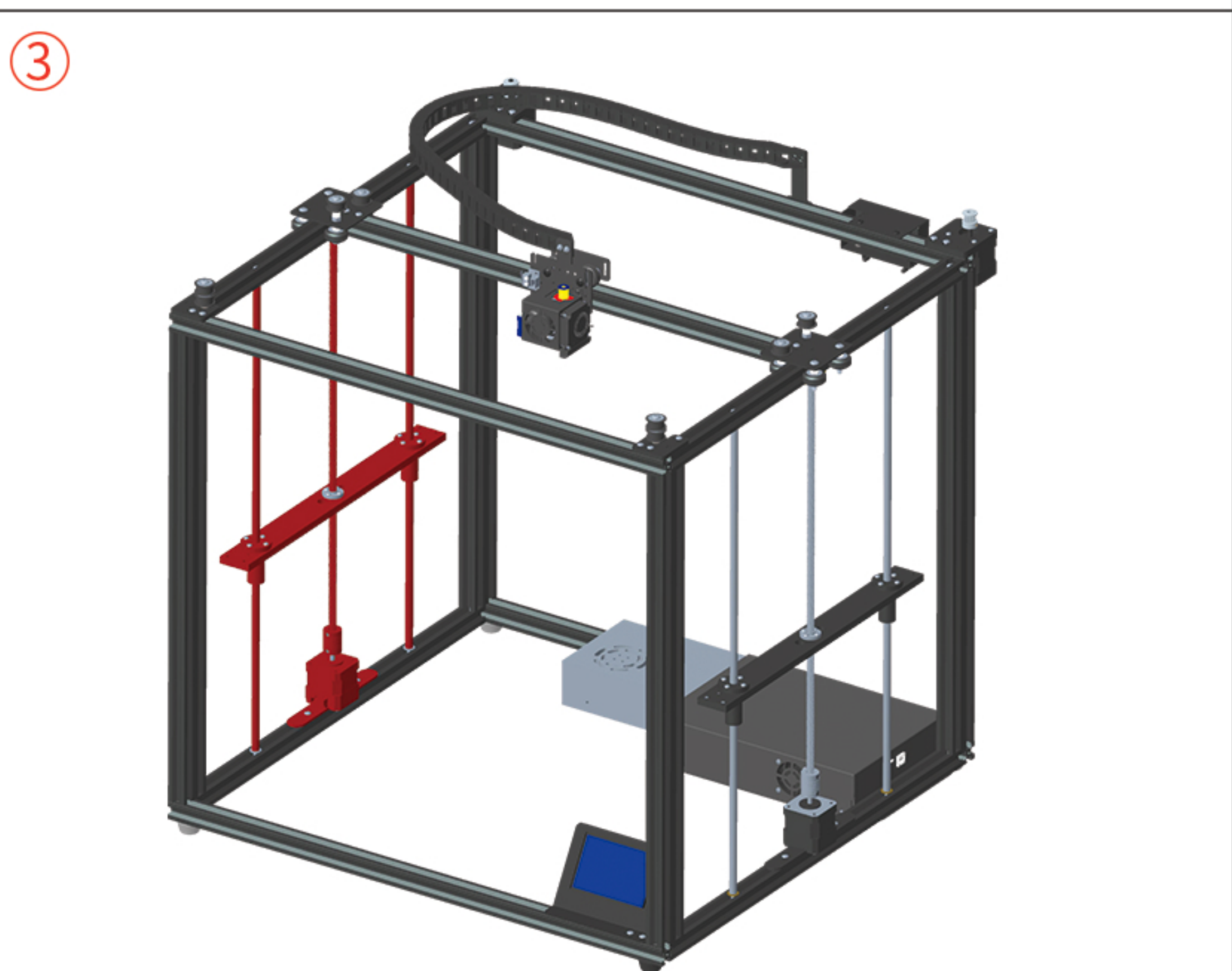
			
Base frame component 1pcs	Z motor component 2pcs	Z carriage 2pcs	Bearing seat component 2pcs
			
Sliding rod Φ8*528 4pcs	Lead screw T8*453 2pcs	Spacer M4 8pcs	Screw RM4*20 8pcs



then, lock the 4pcs jackscrew in the coupling , T nut, screw on the Z motor plate, rotate the lead screw T8\*453 again,make sure the Z carriage can slide up and down freely. finally lock the 2pcs RM4\*20 screws from the bottom of the sliding rods .

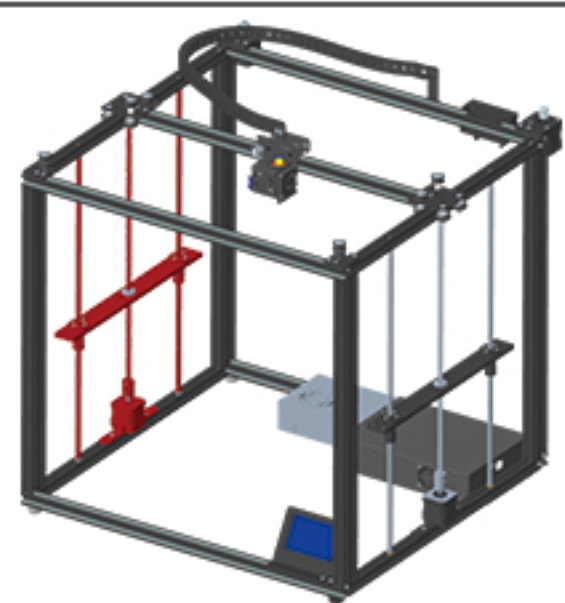


Adjust the T nut on the Z motor component, Place the Z motors to the aluminum profile 2 , the 2 small M3 holes stand outside as the illustration. Align sliding rod Φ8\*528 with the hole of the aluminum profile, let screw RM4 \* 20 through the holes of the aluminum profile 2,install the spacer, then connect with the M4 hole of the sliding rod Φ8\*528,same as the illustration, rotate the lead screws T8\*453, slide the carriage and the bearing seat to the top, lock the 2pcs screws RM4\*20 to the aluminum profile 2 , then lock the M4 T nut and jackscrew of the bearing seat, rotate the lead screws T8\*453, drop the carriage down, make sure it can move freely. Otherwise, please loosen the jackscrew,adjust it again.



# Step 8: Assemble belt

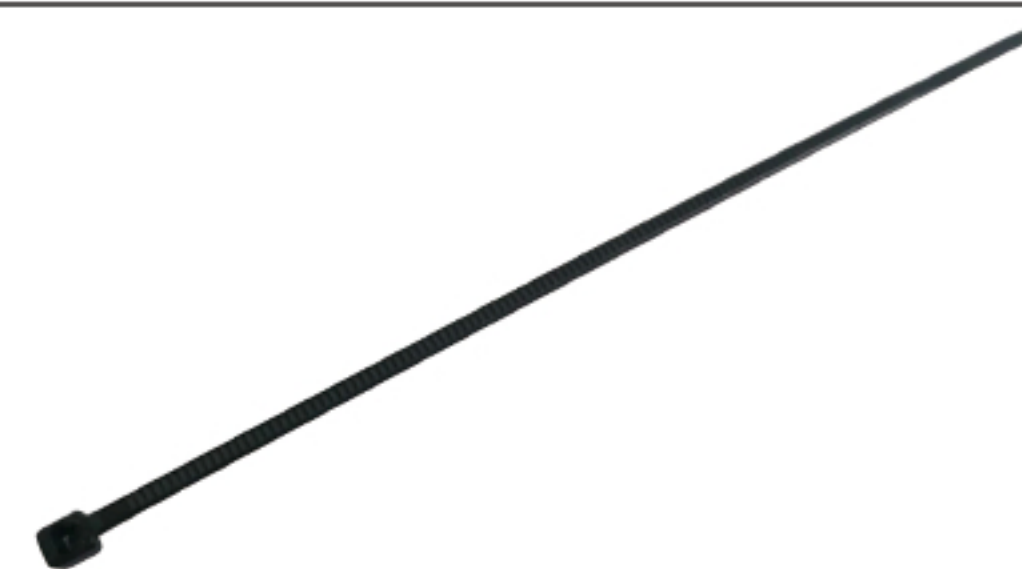
Assemble parts specifications and quantity:



Main frame 1pc

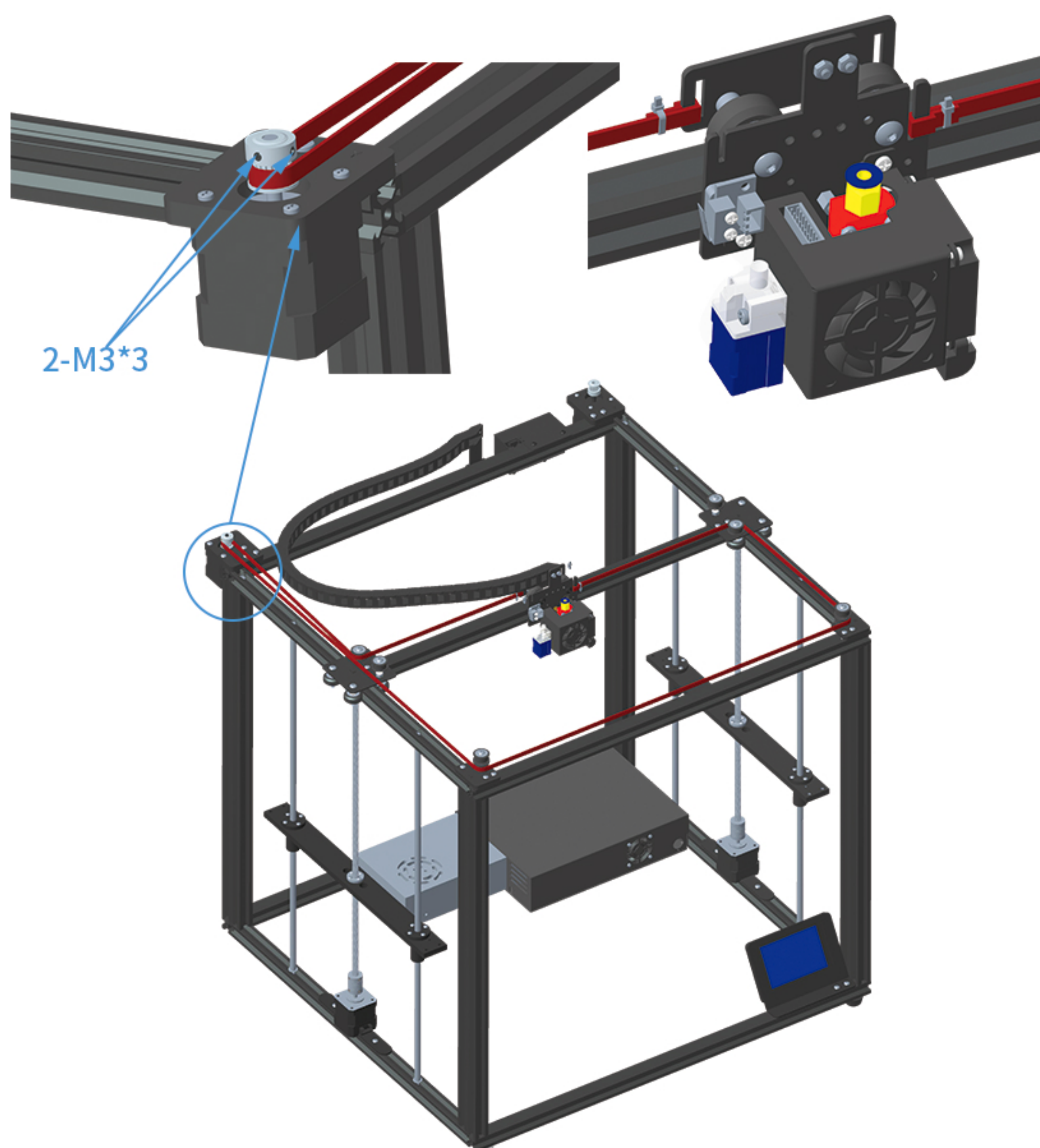
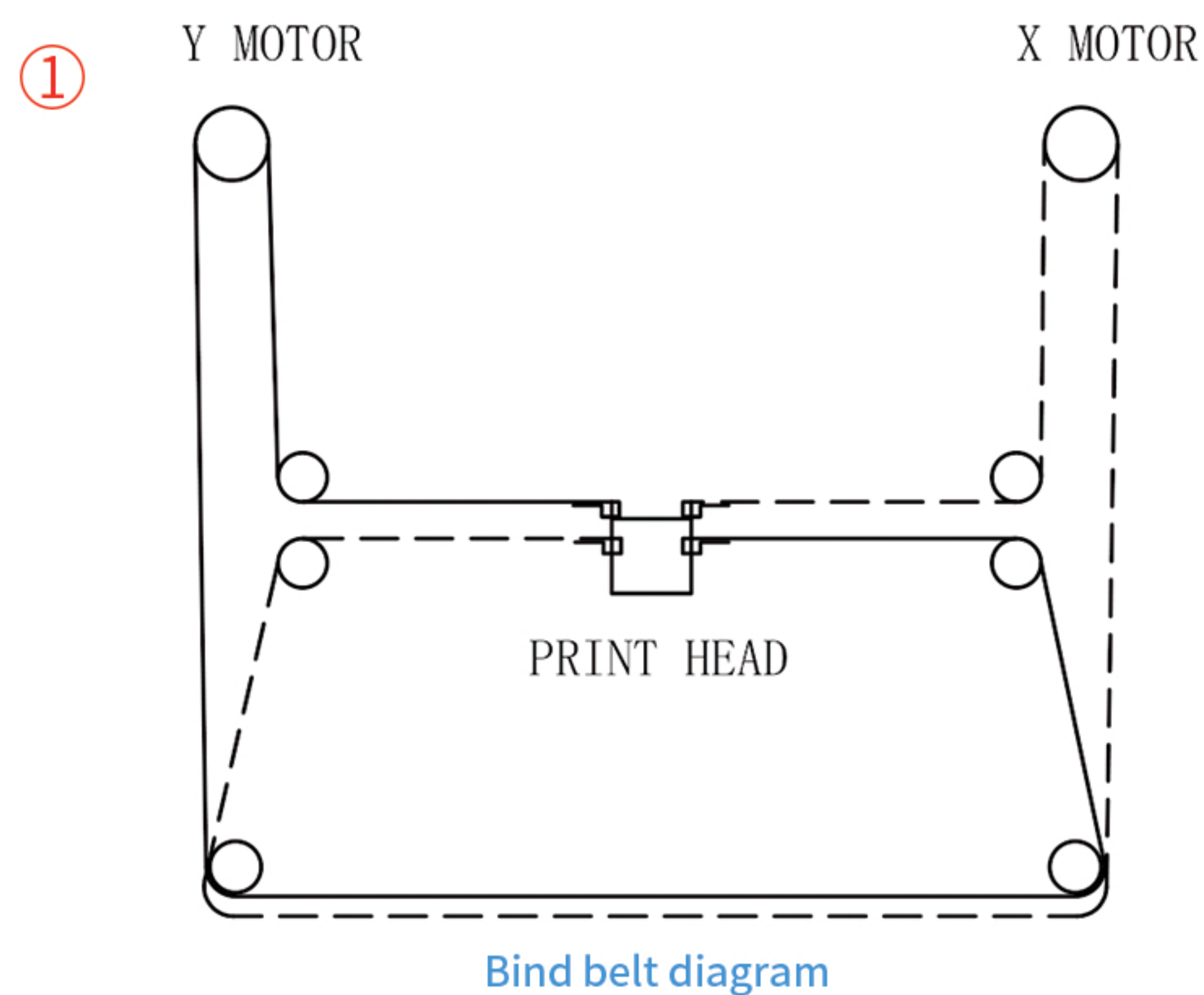


Belt 2pcs

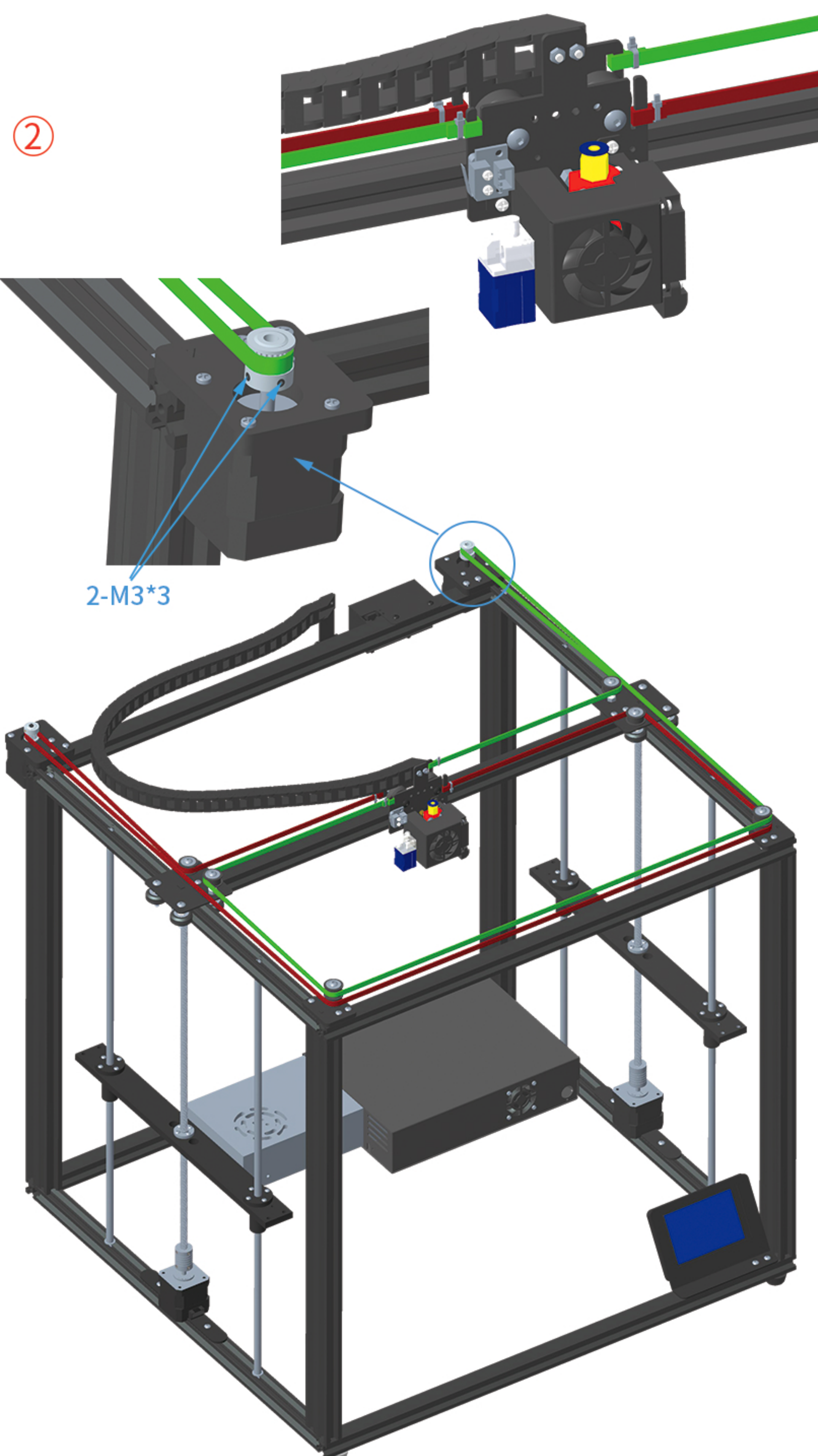


Tie 4pcs

Pass the belt through the gear as shown, press the pulley plate against the motor bottom plate, fasten the lower end of the sheet metal groove of the print head assembly with the tie belt, as shown in the figure. After adjusting the spacing between the motor gear and the belt, lock the 2 meter screws on the gear. Loosen the motor baseplate screw, pull the motor assembly outward, tighten the belt (do not force too much), and lock the screw.

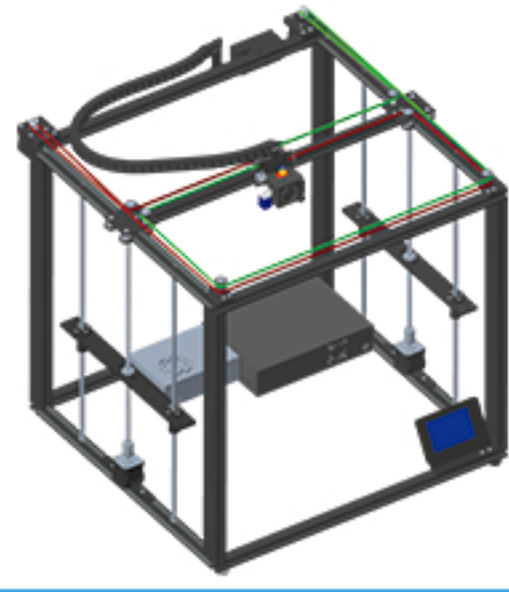


Also assemble the second belt, the tension of the two belts should be equal.



## Step 9: Assemble feeding motor

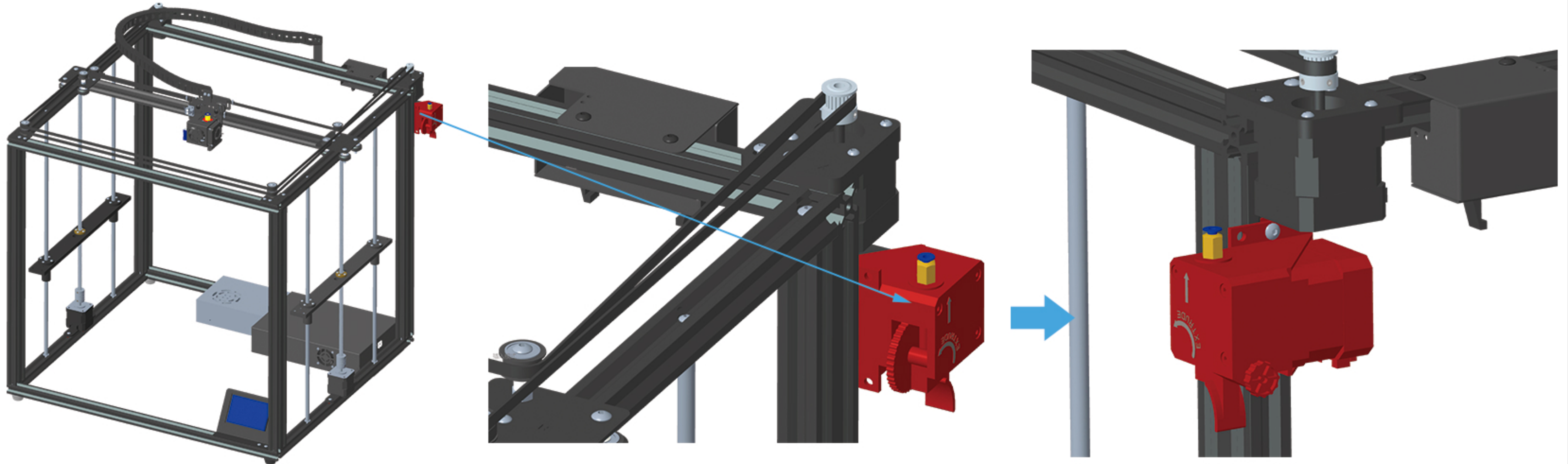
Assemble parts specifications and quantity:



Main framework

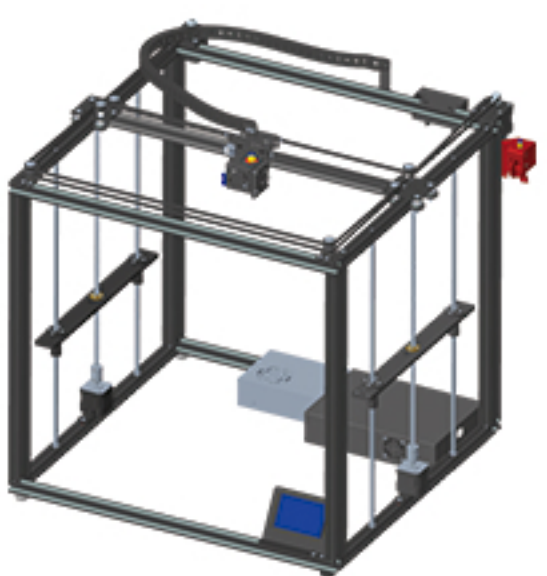


remote feeder 1pcs

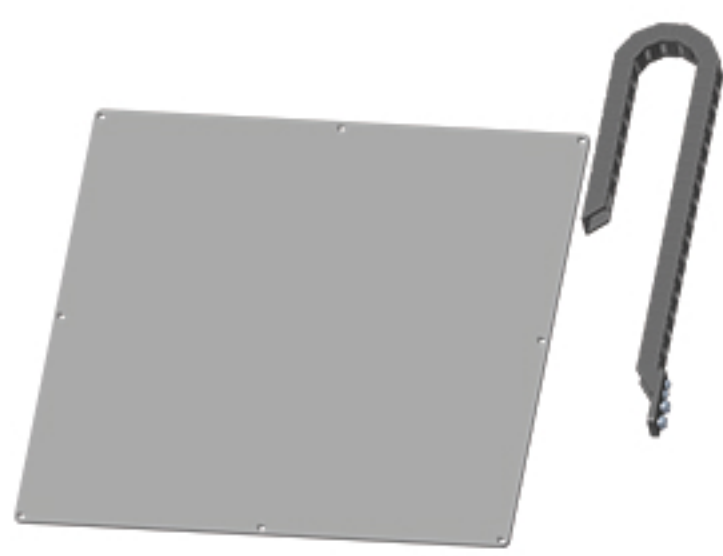


## Step10: Assemble printer platform

Assemble parts specifications and quantity:



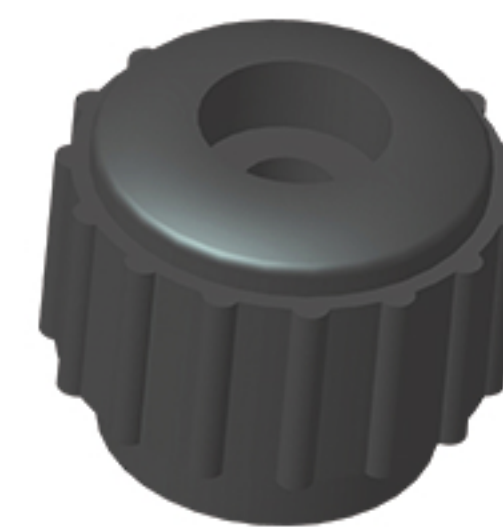
Main framework



Hotbed 1pcs



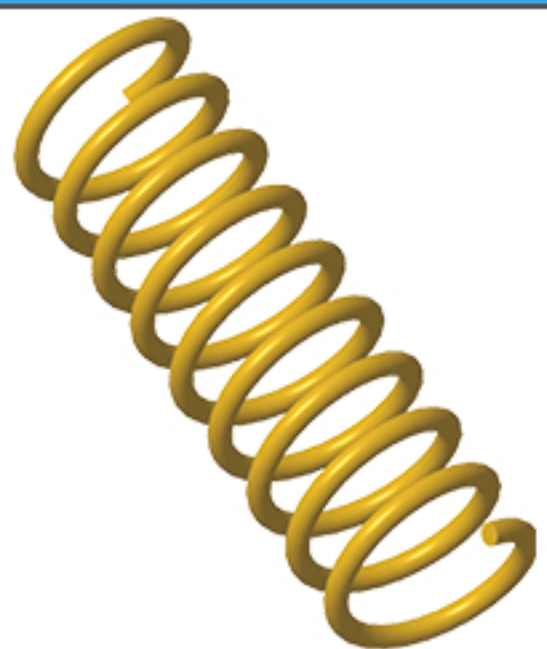
Metal bar 2pcs



M3 Wing nut 4pcs



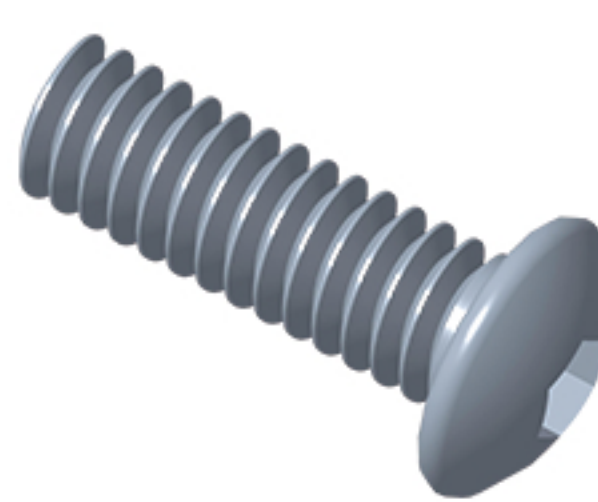
RM3\*16 screw  
2pcs



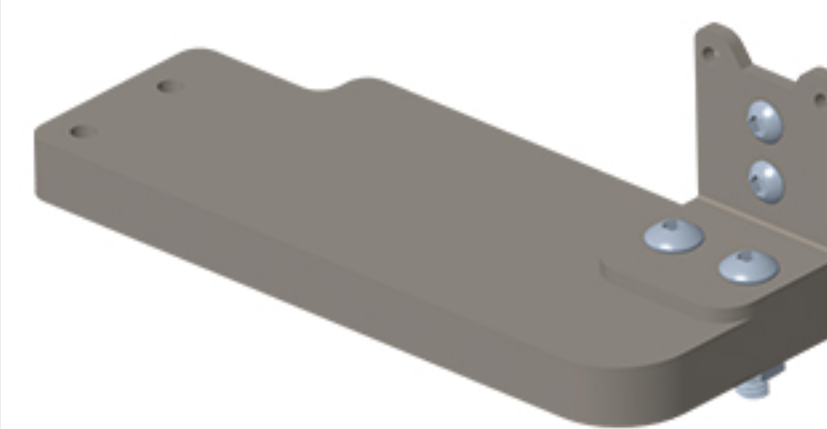
Spring 4pcs



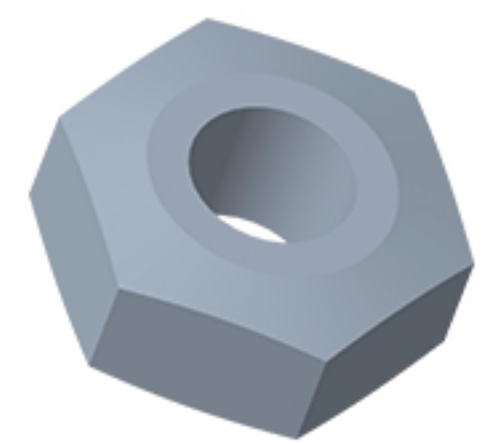
KM3\*30 screw 4pcs



RM4\*12 screw  
8pcs

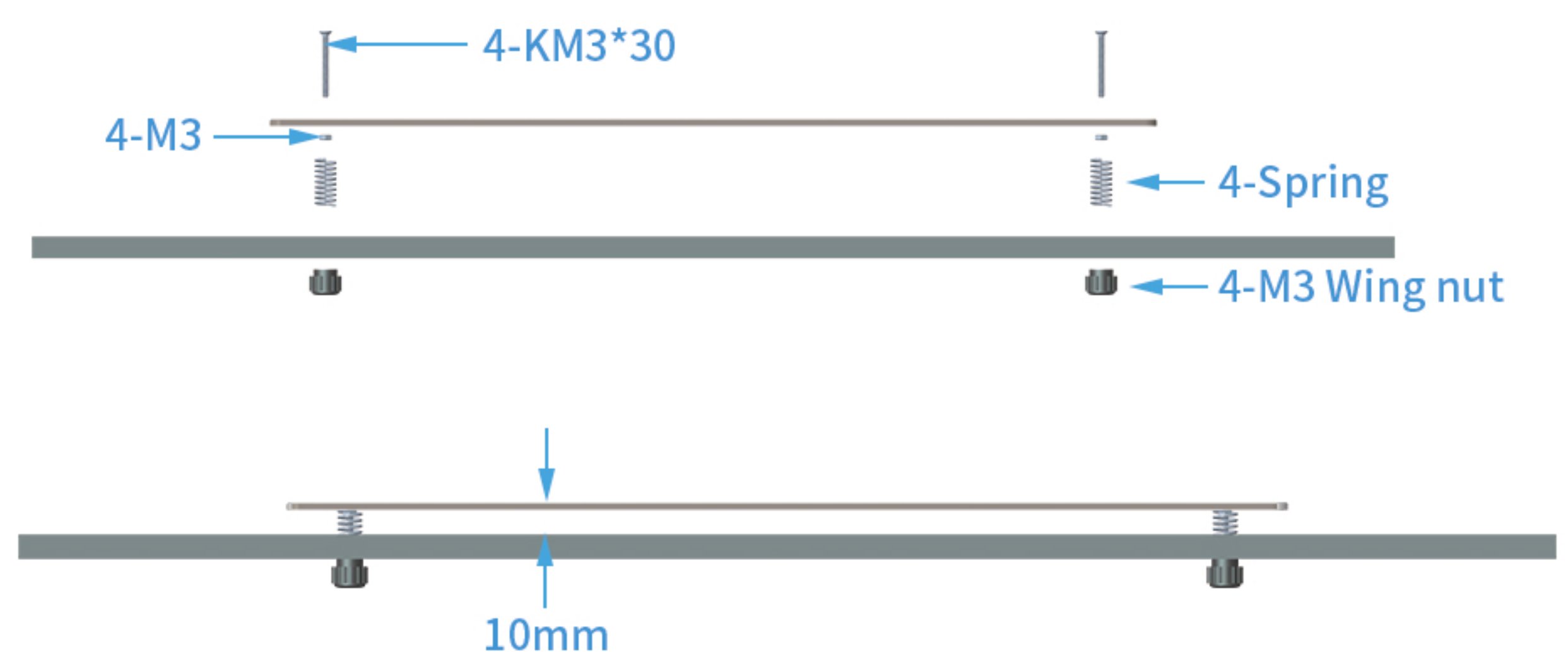
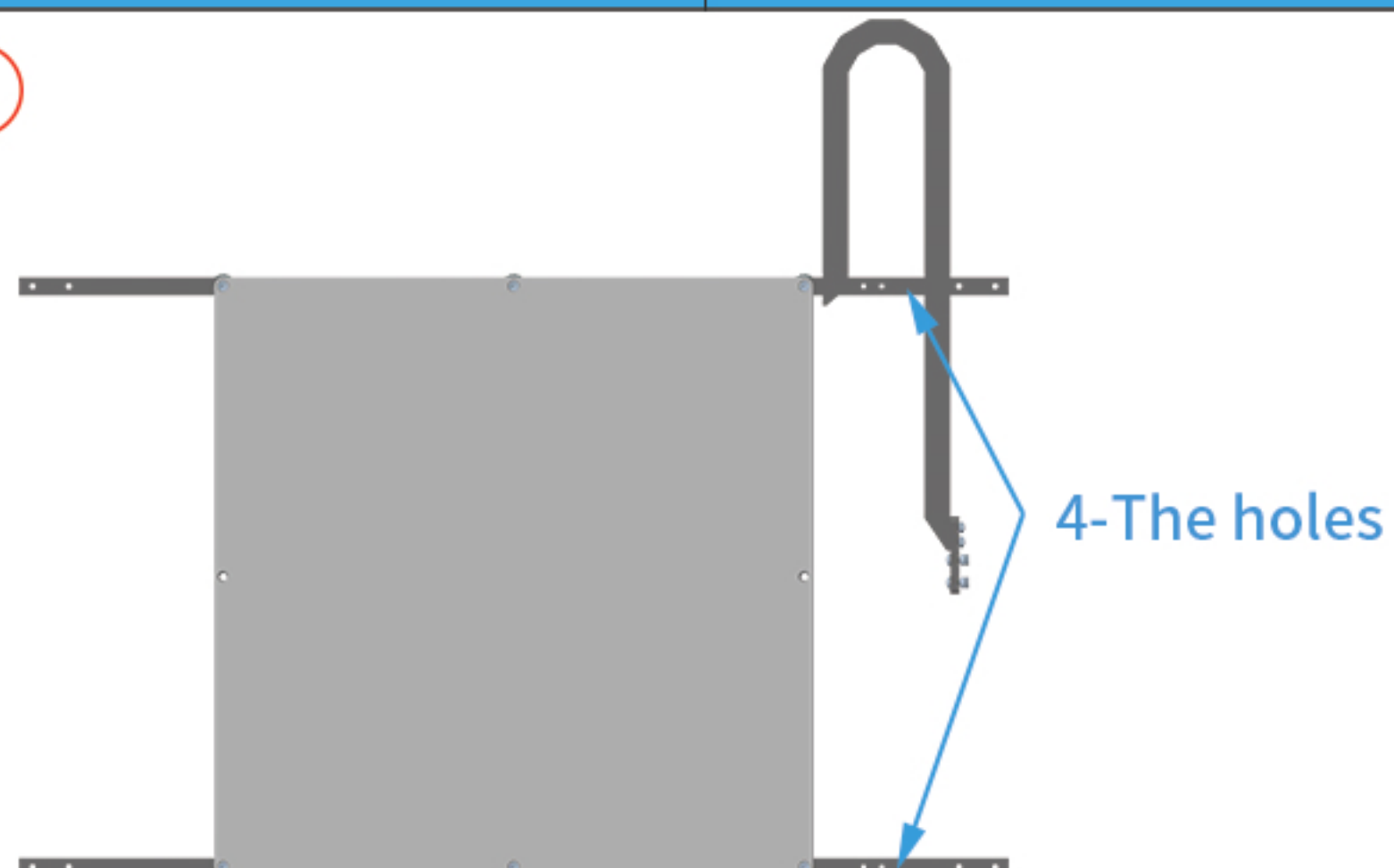


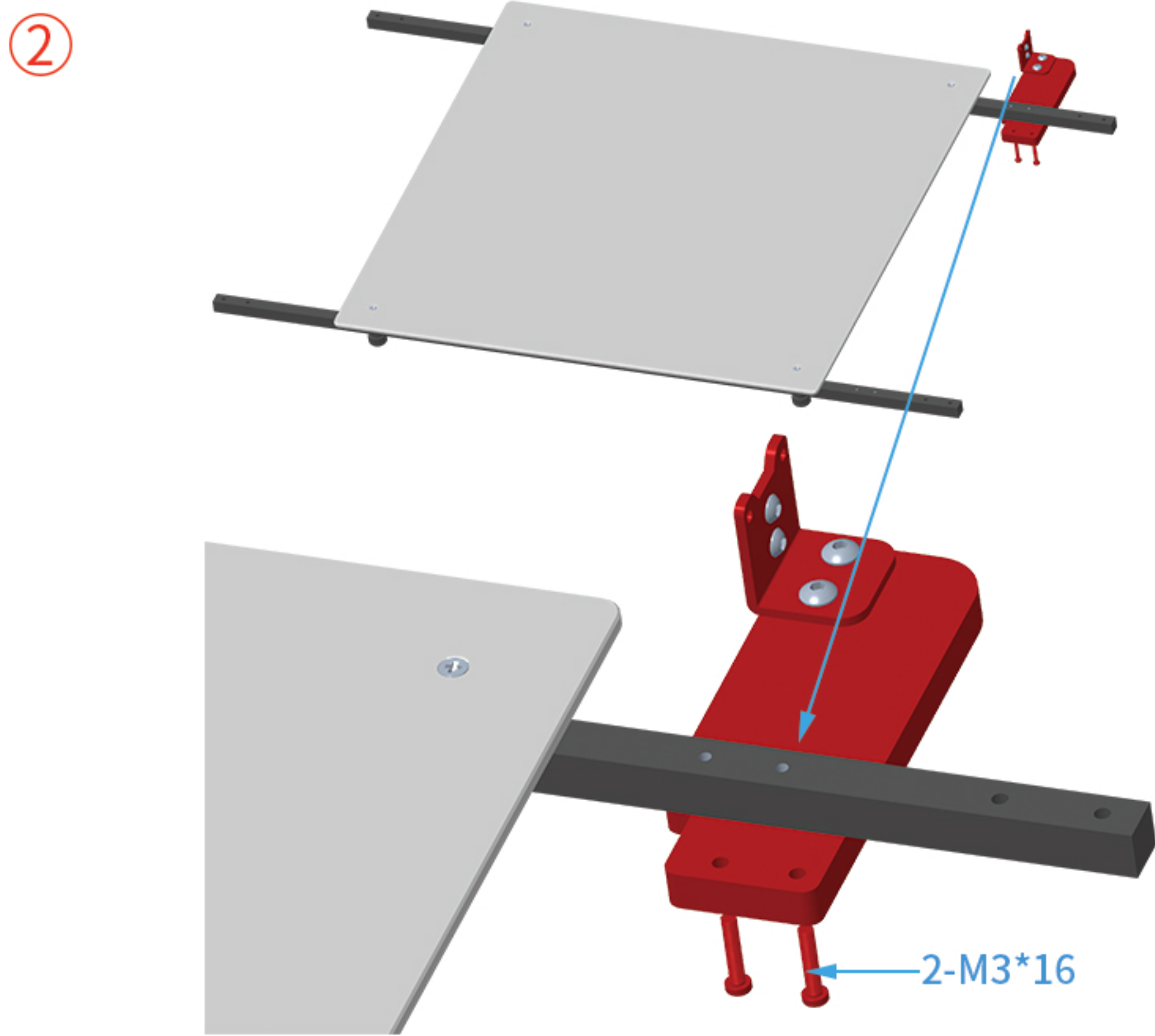
Towline holder 1pcs



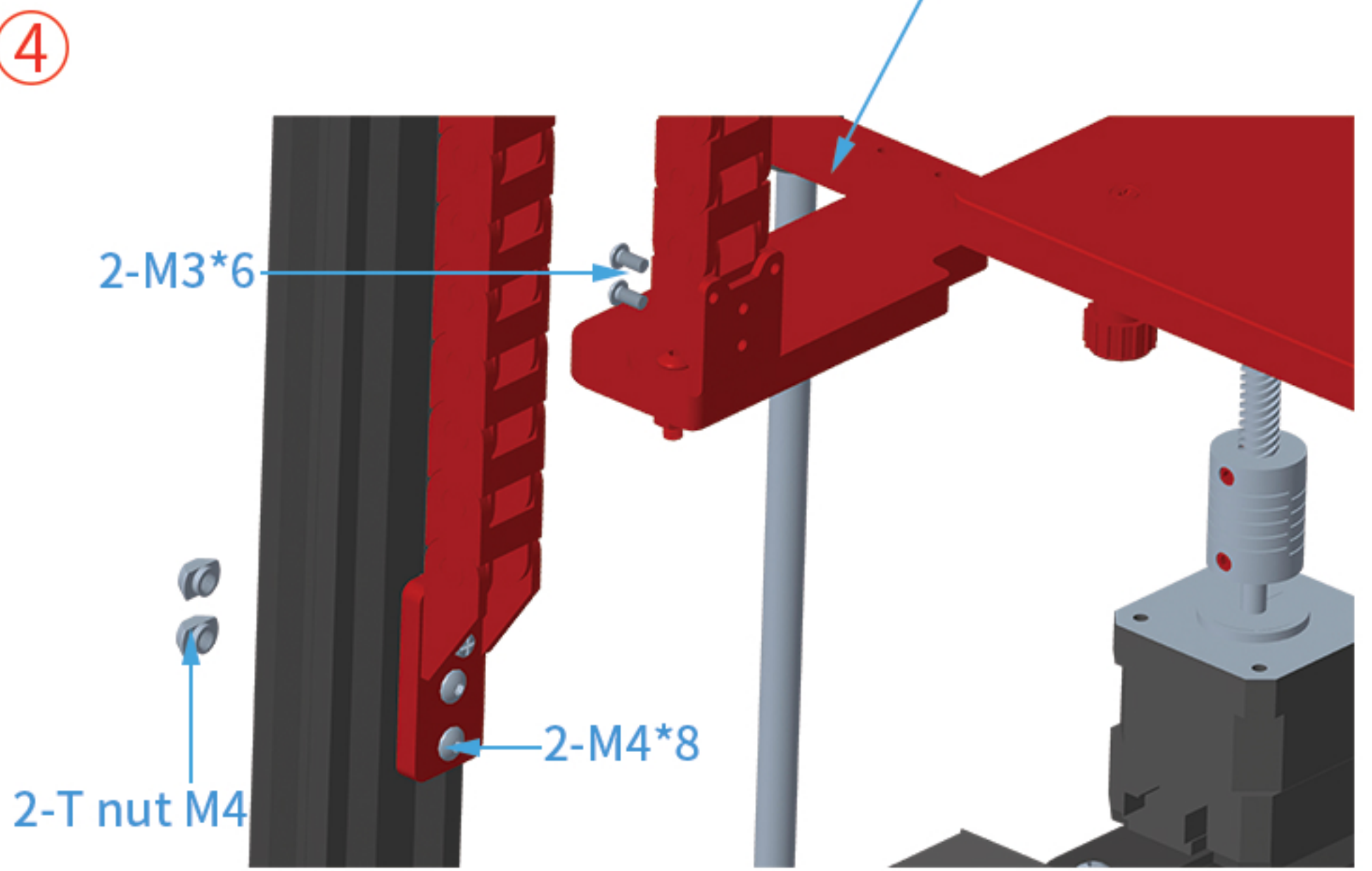
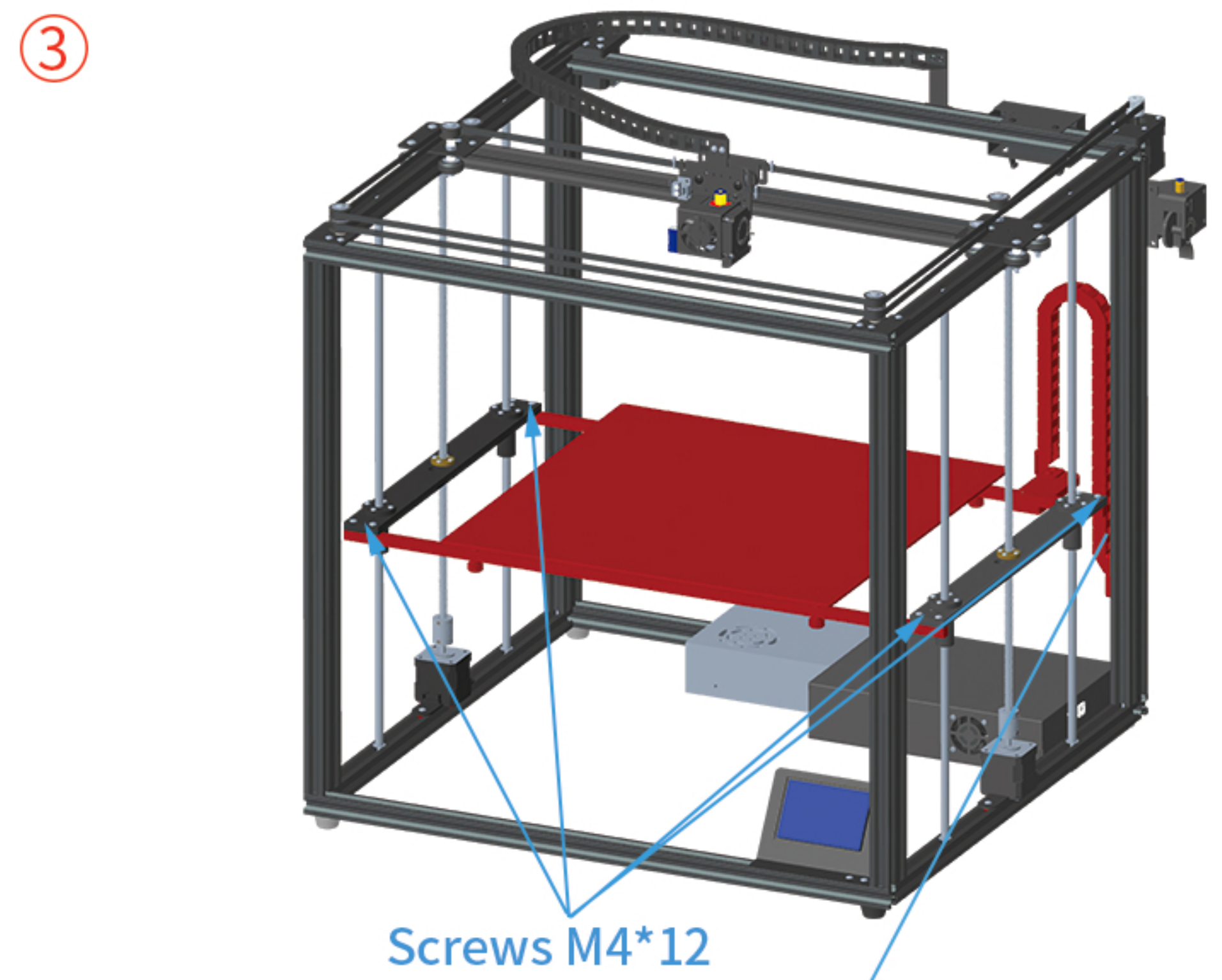
M3 Nut 4pcs

①



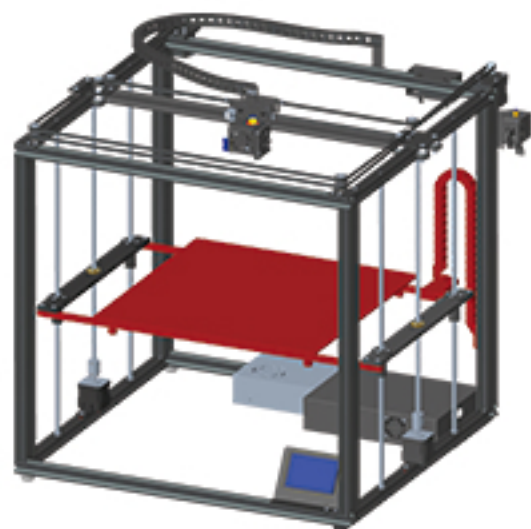


Rotate 2pcs lead screws T8\*453, keep 2 Z carriage at the same plane, secure the heat bed component and metal bar with 8pcs screw RM4\*12. The towline bracket is close to the side of the feed motor component, rotate the screw in the same direction, let the platform move up and down, make sure it can move freely, if not freely, please loosen the screw RM4\*12 to adjust it until it can move freely



## Step 11: Adapter plate assembly

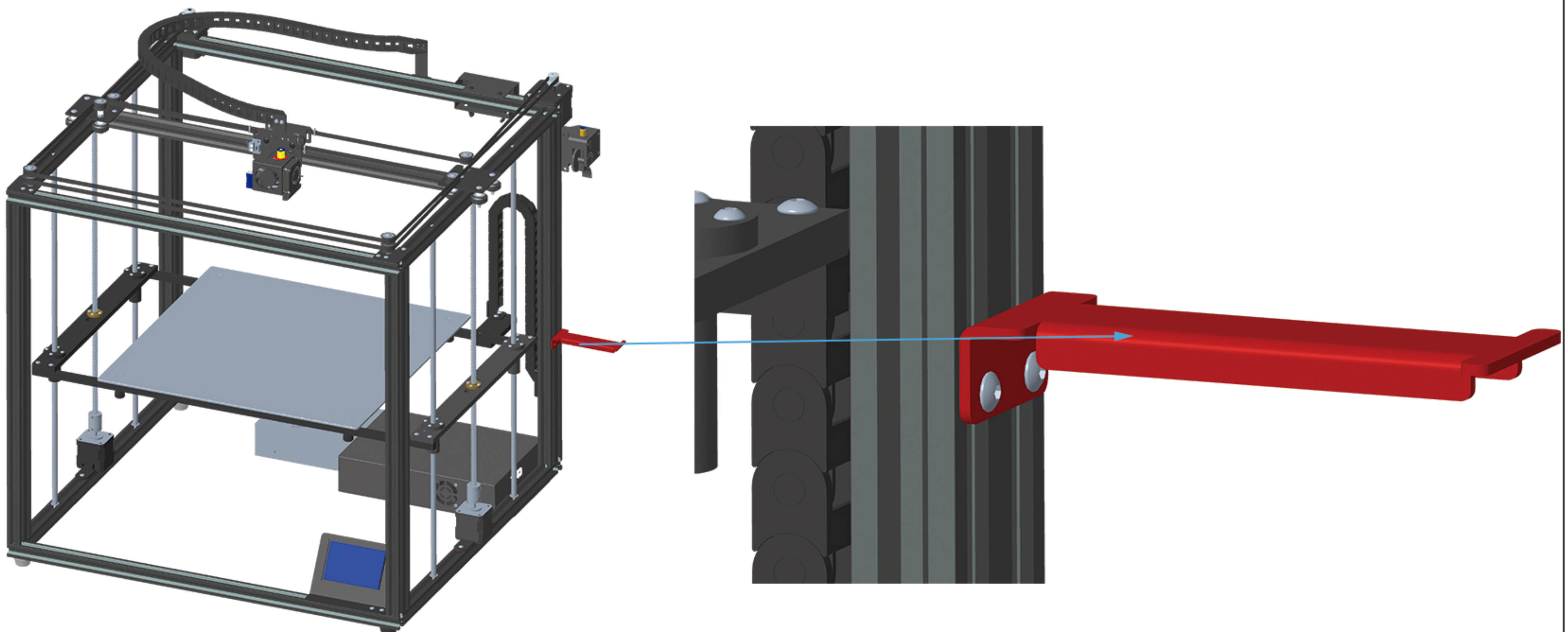
Assemble parts specifications and quantity:



Main frame 1pcs



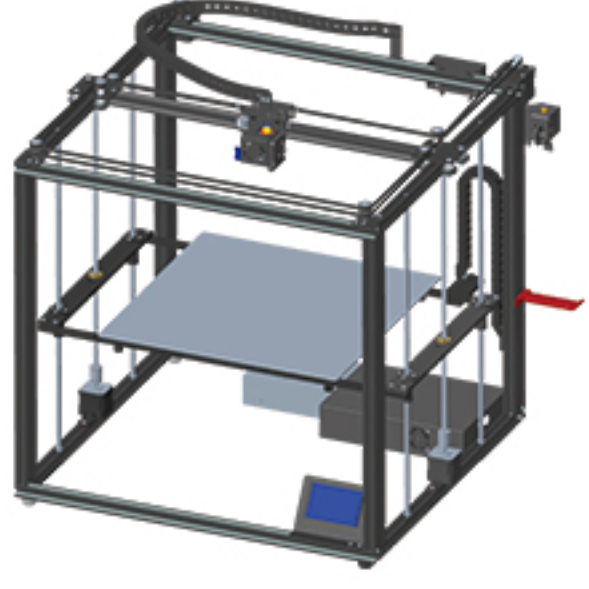
material rack 1pcs





# Step 12: Assemble Decorative strip and Feeding tube

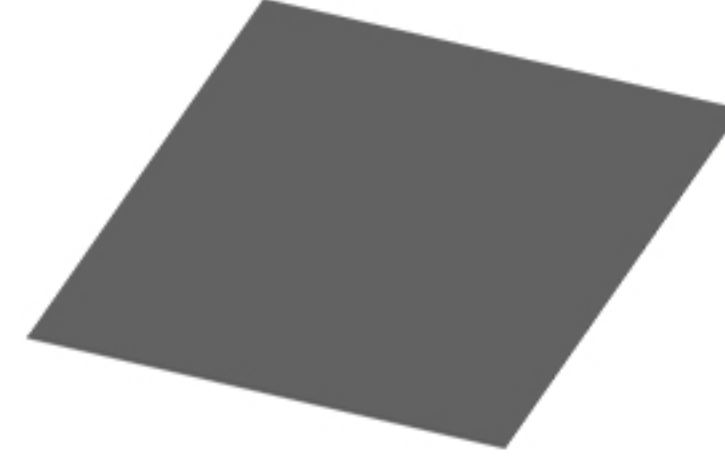
Assemble parts specifications and quantity:



Main framework



Aluminium profile seal

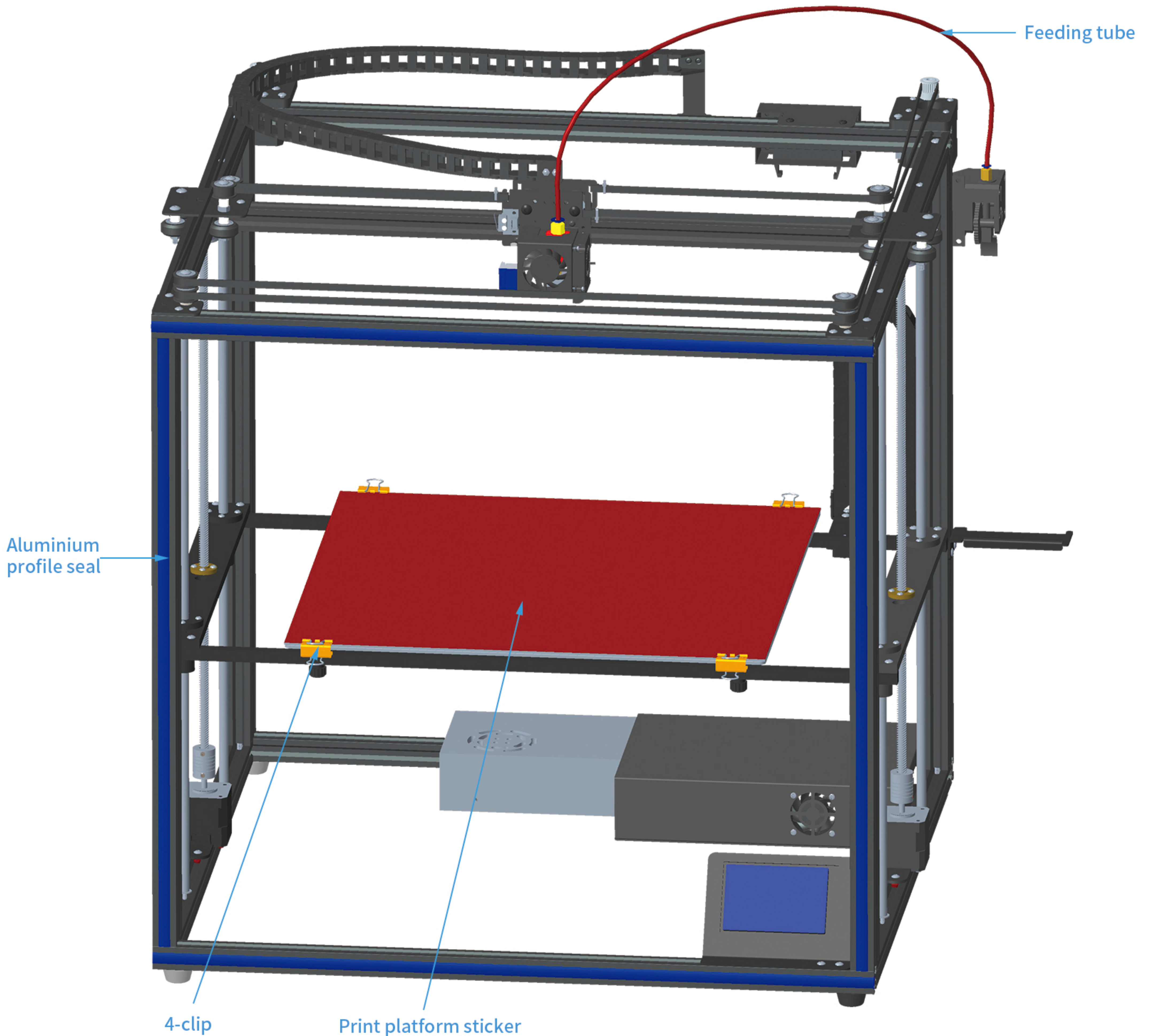


Print platform sticker  
1pcs



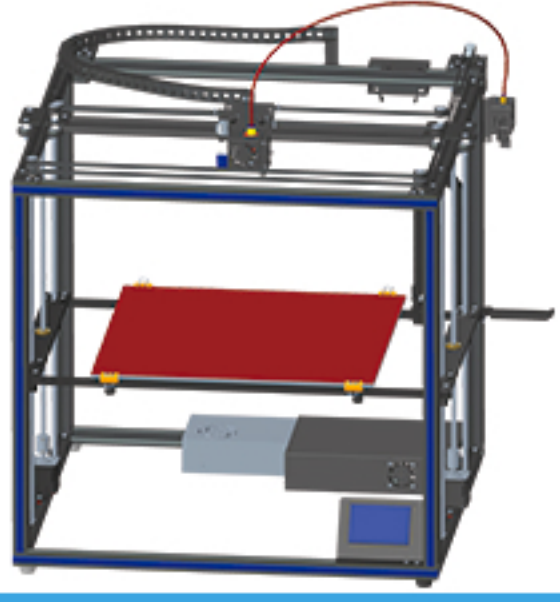
clip 4pcs

The filament tube of the print head is not inserted to the bottom, which will lead to block filament.

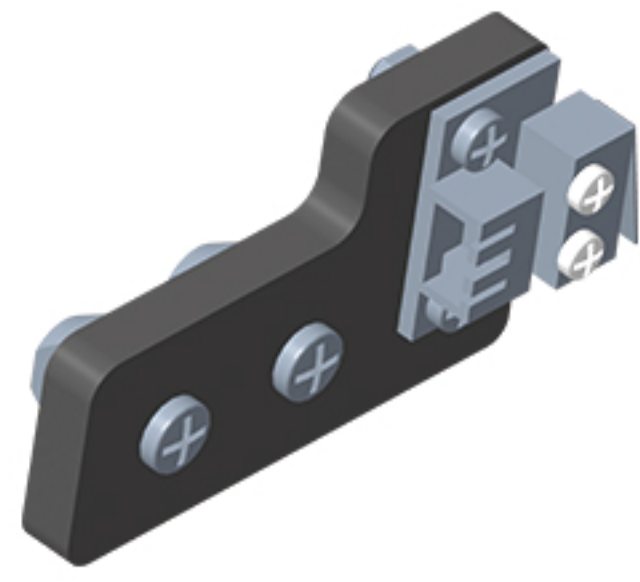


## Step 13: Assemble limit switch

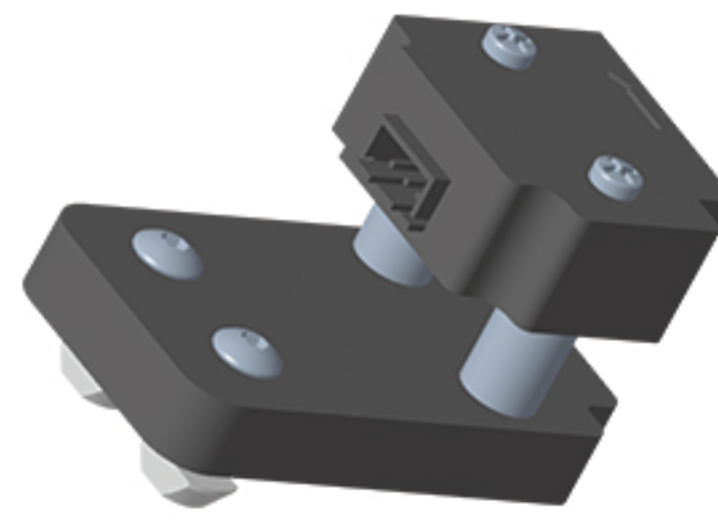
Assemble parts specifications and quantity:



Main framework



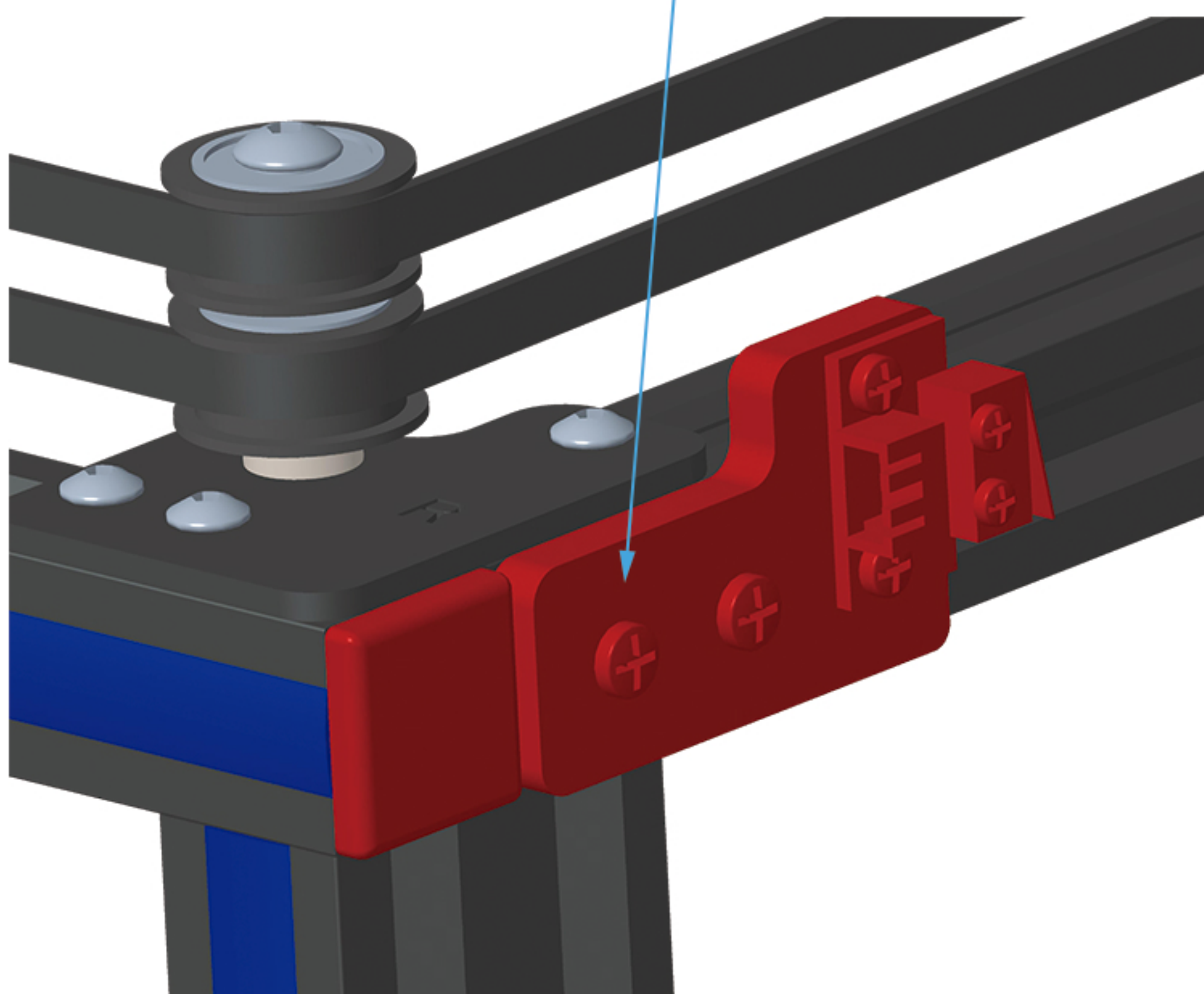
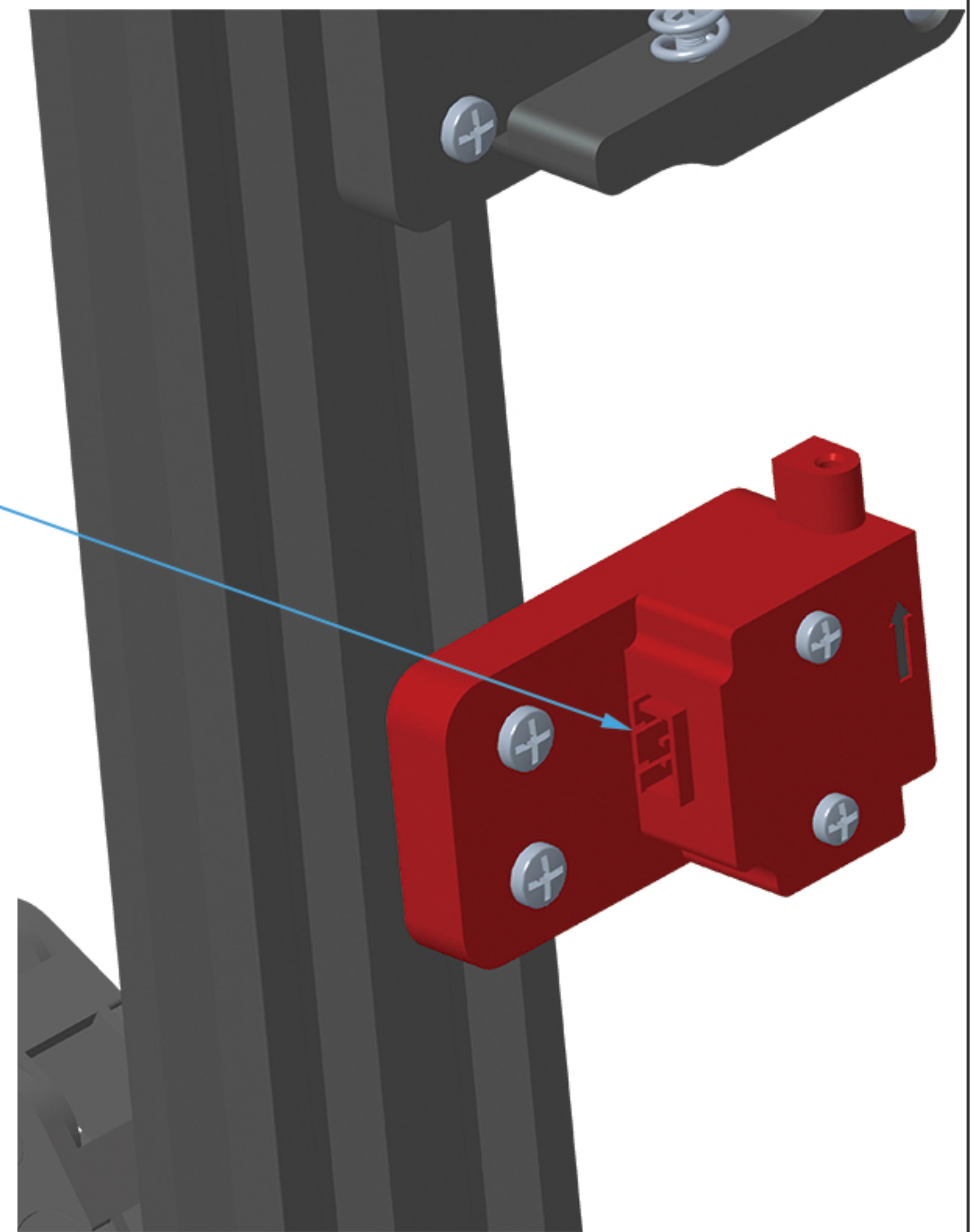
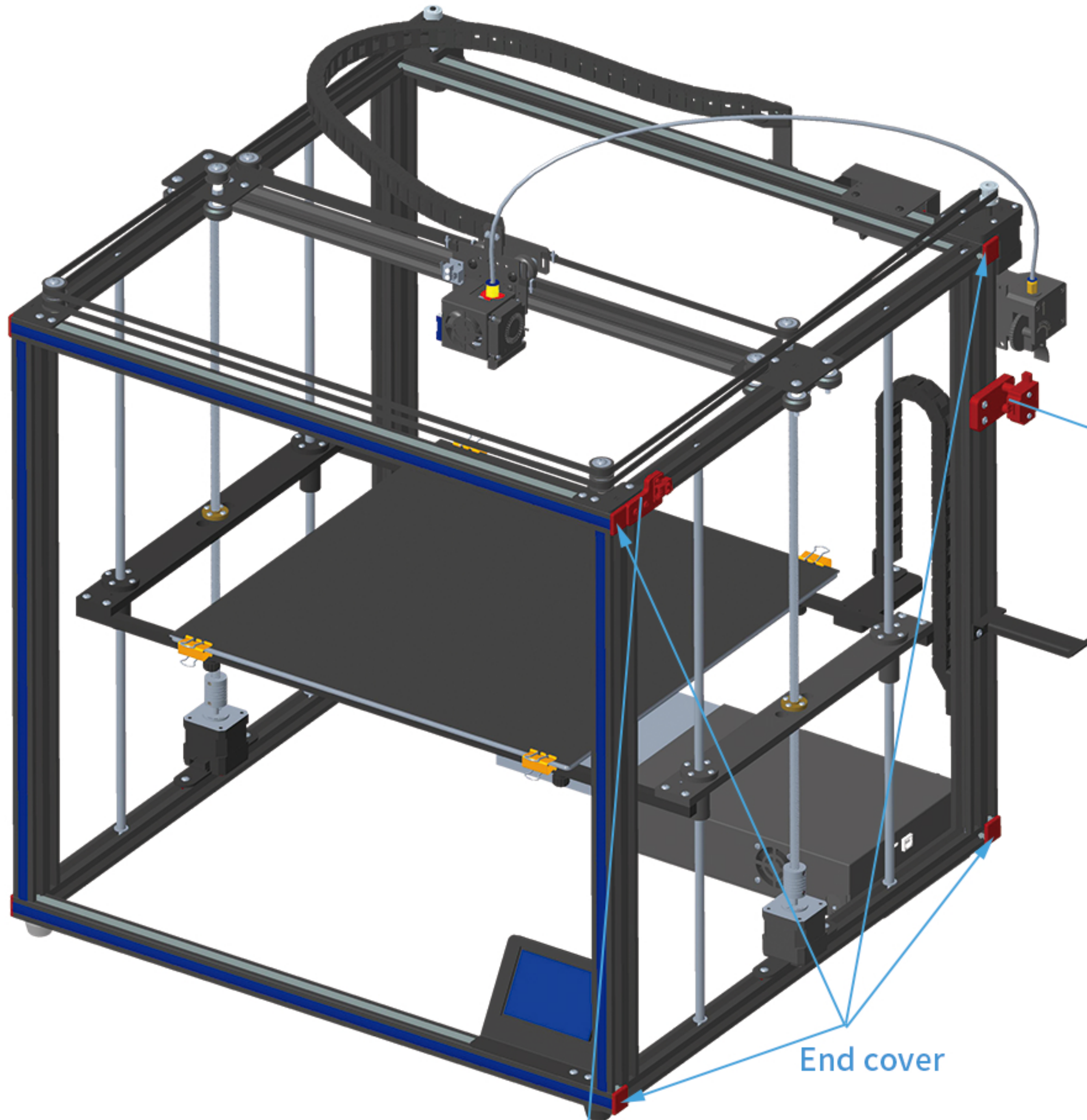
Y switch 1pcs



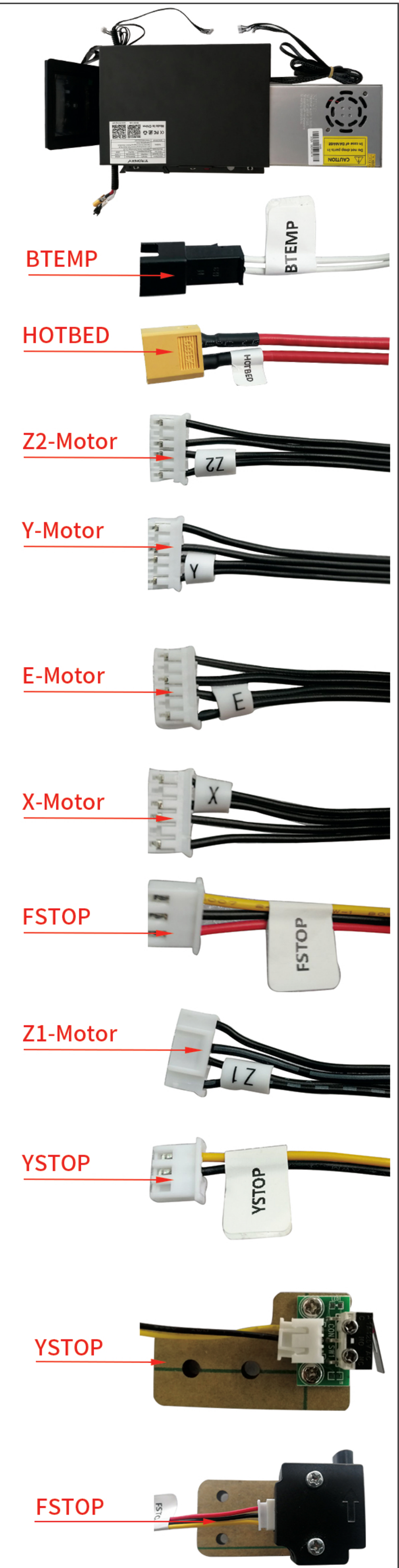
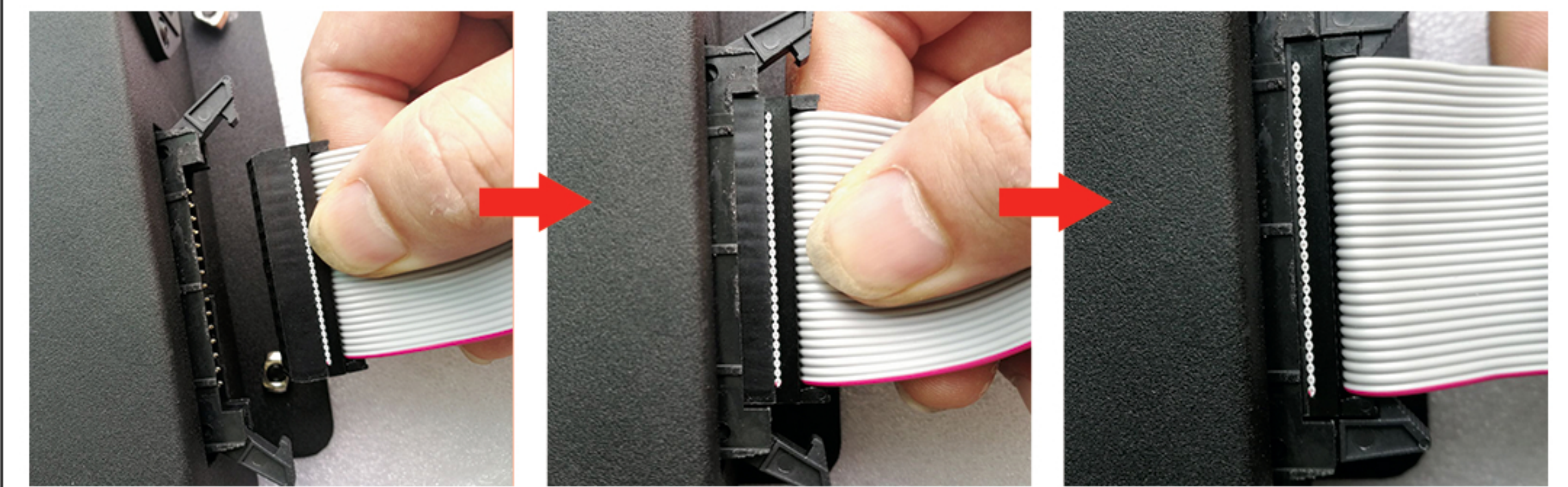
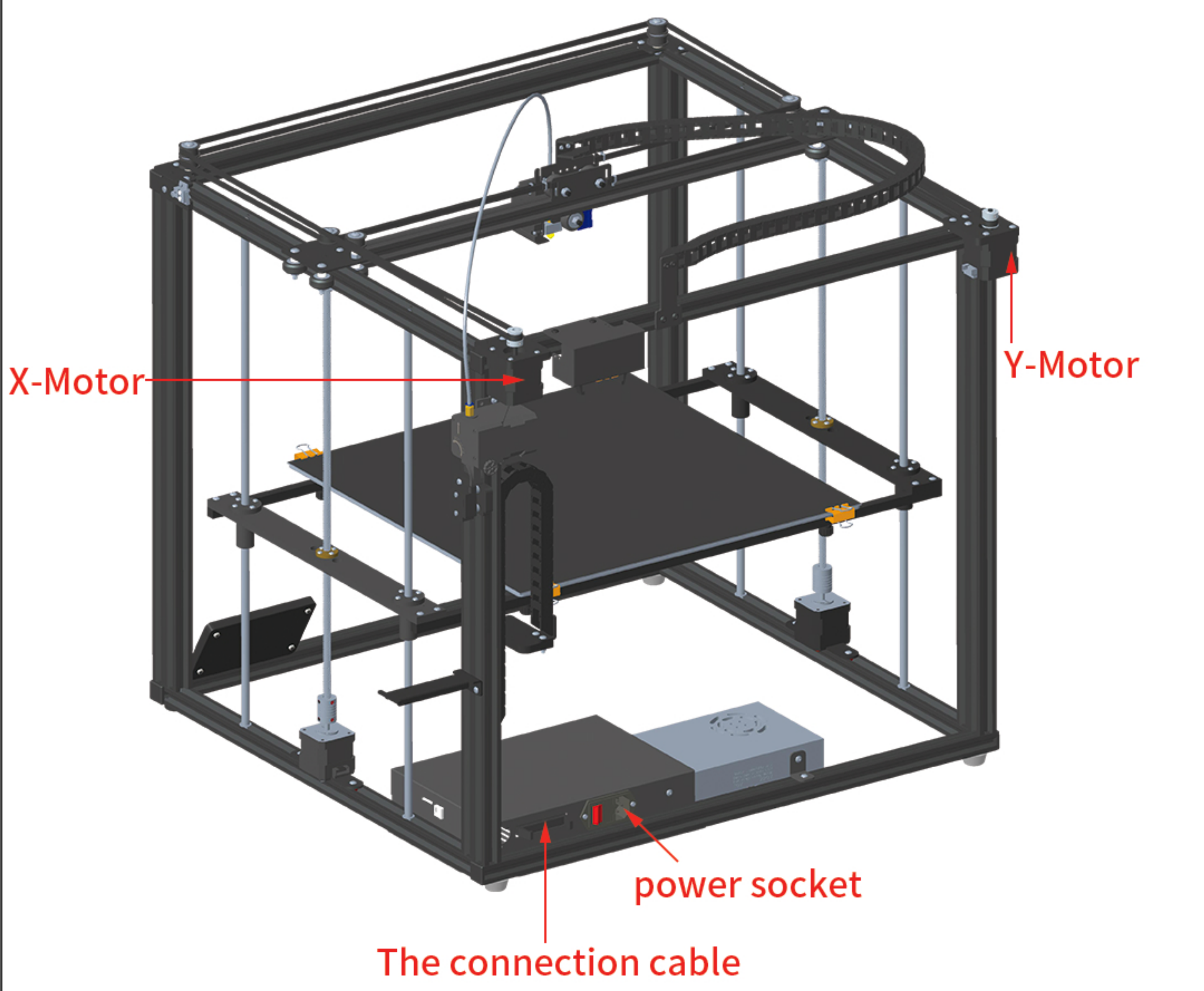
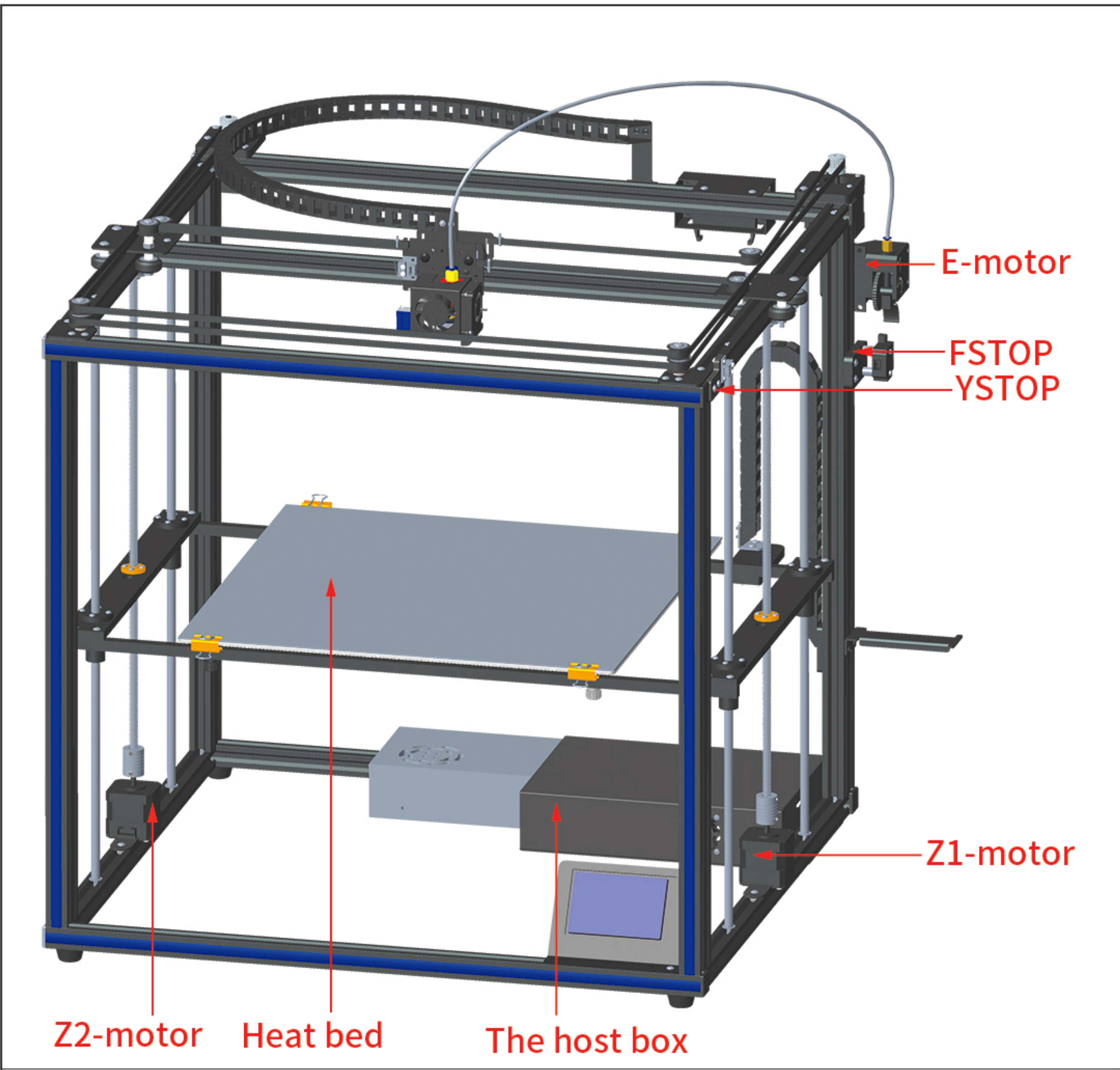
Filament alarm 1pc



End cover 8PCS

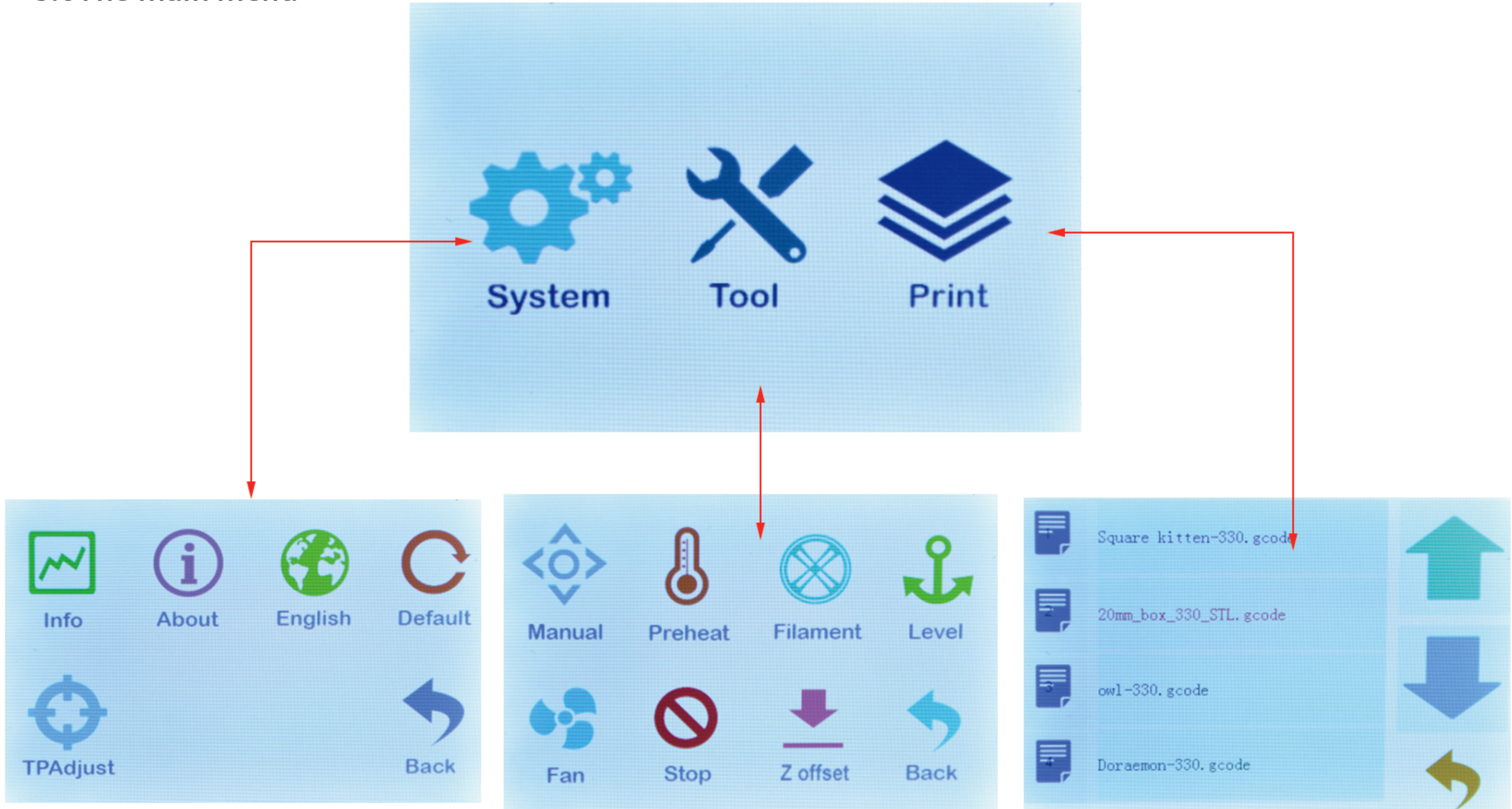


## Step 14: Connecting wire

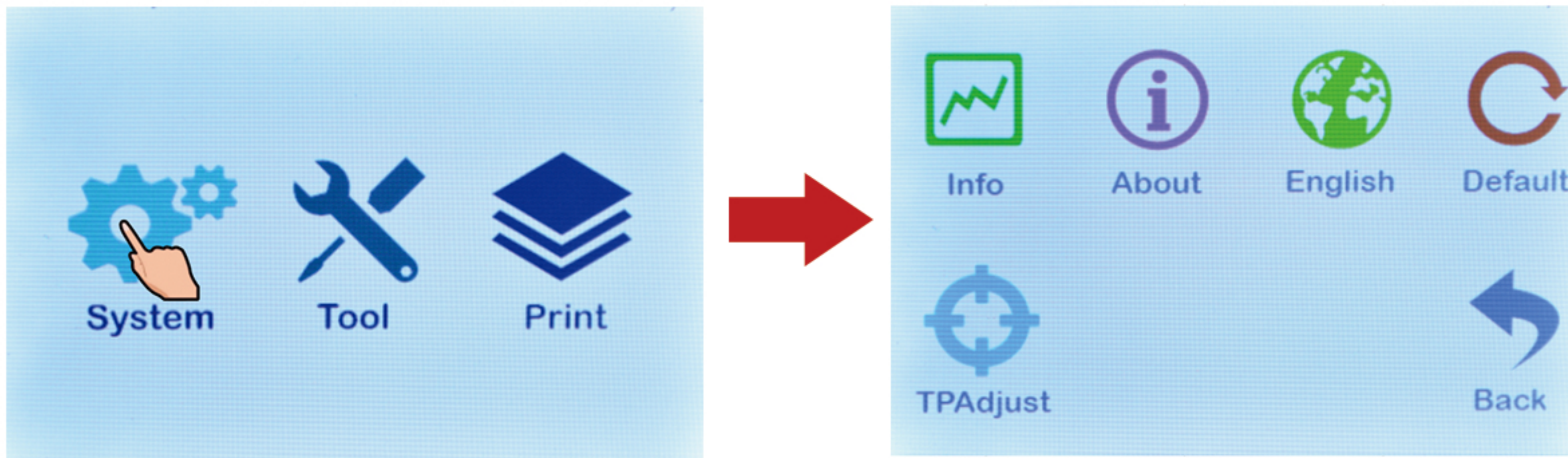


# 5. operation instructions

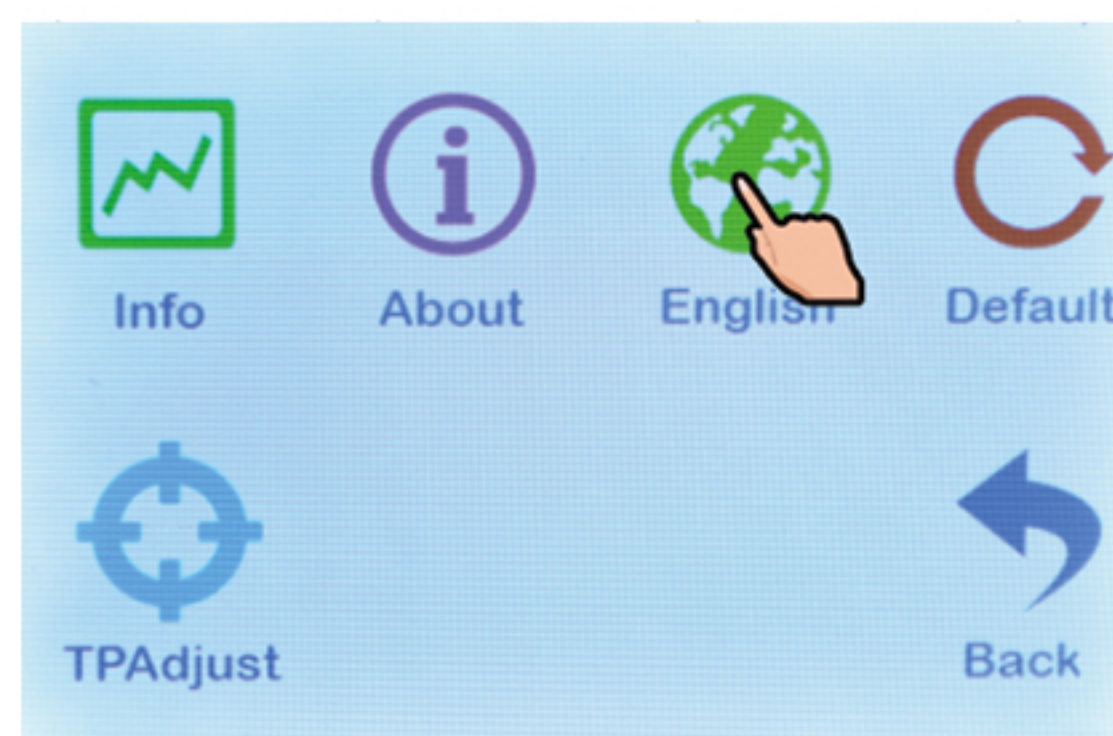
## 5.0 The main menu



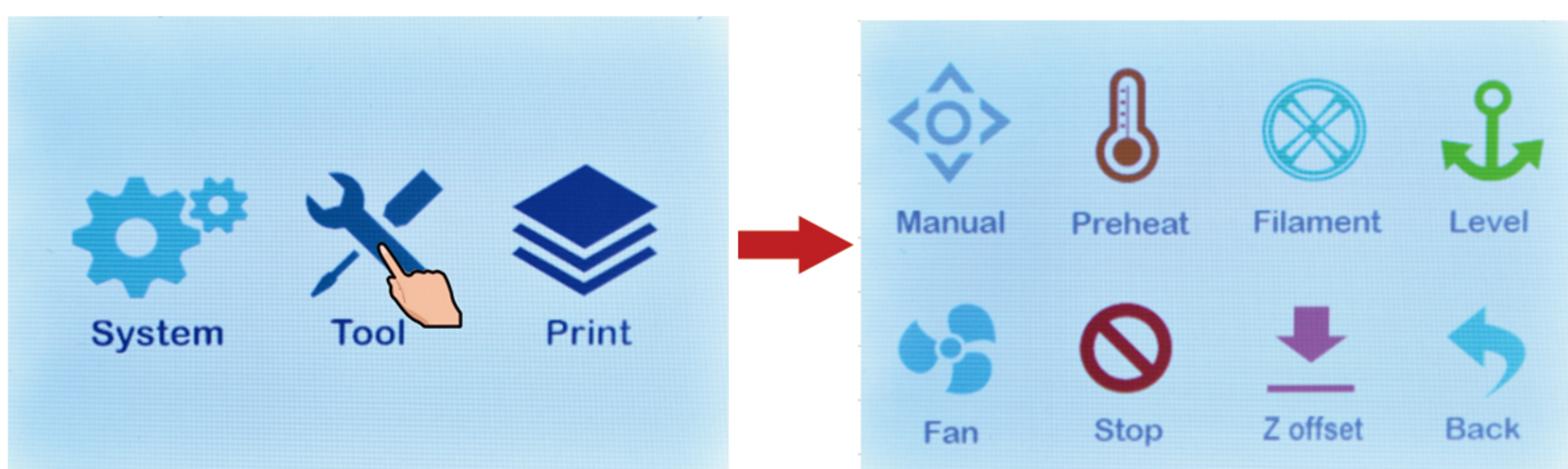
## 5.1. The system menu.



### 5.1.1 language selection

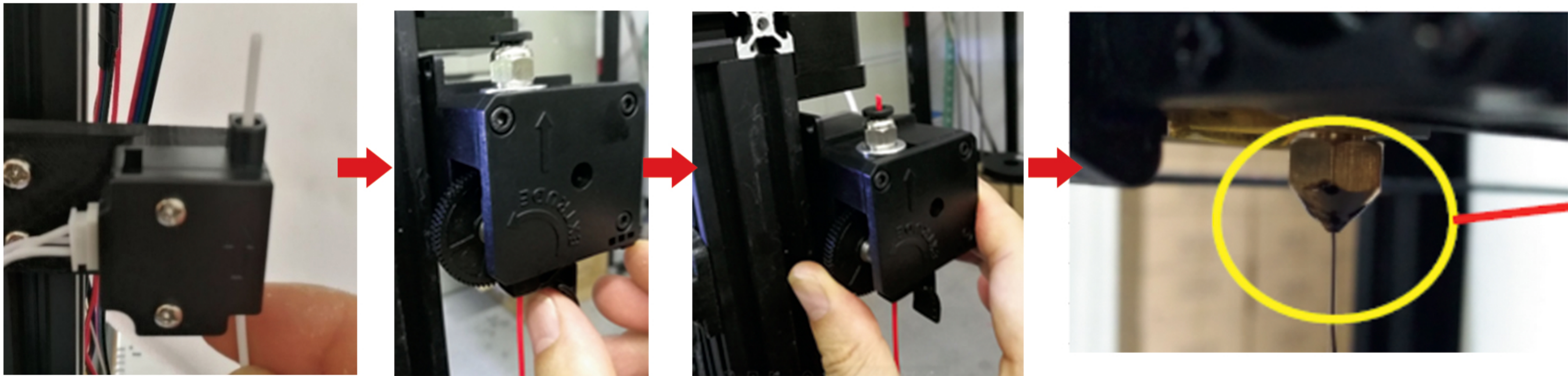
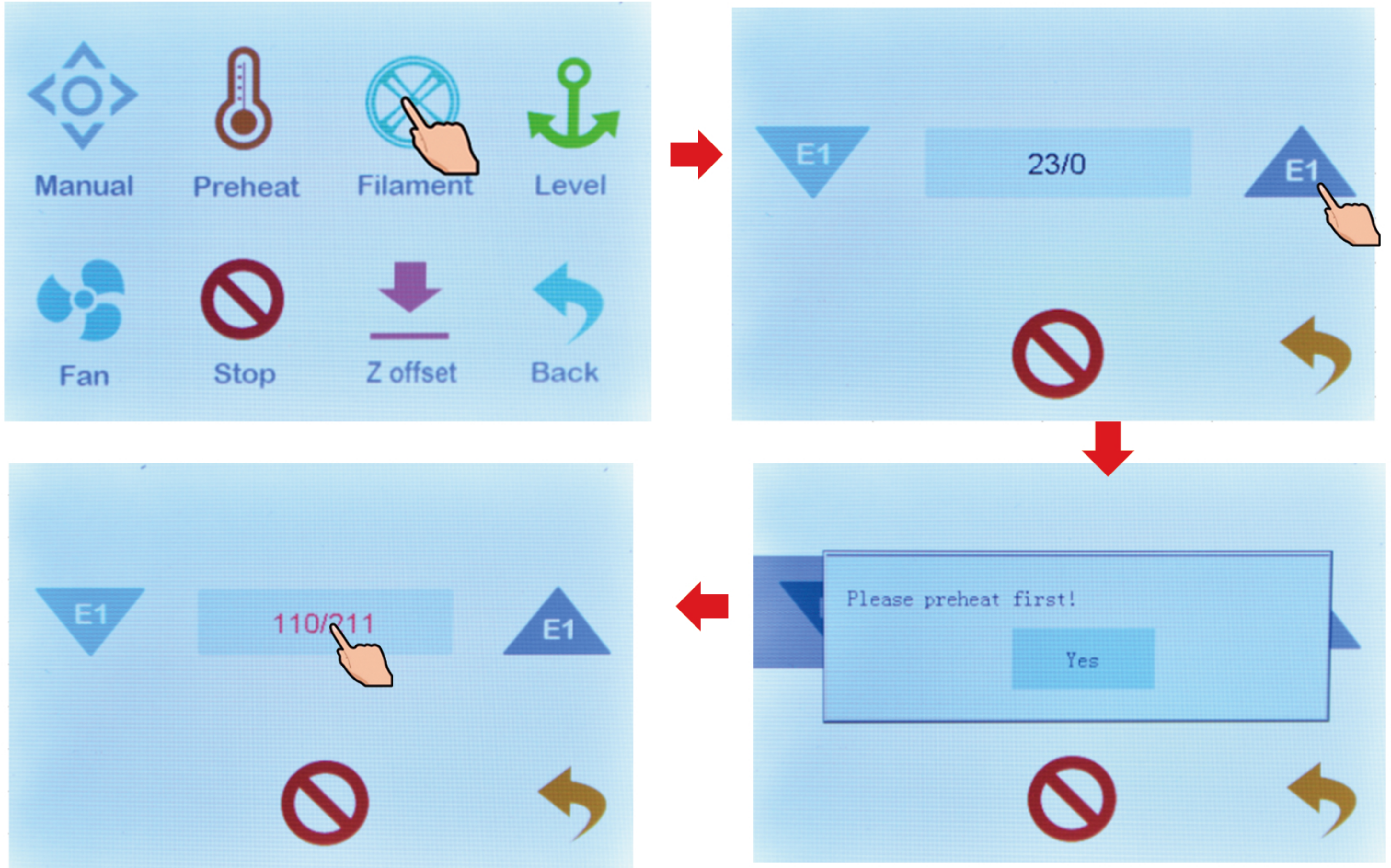


## 5.2 tools menu

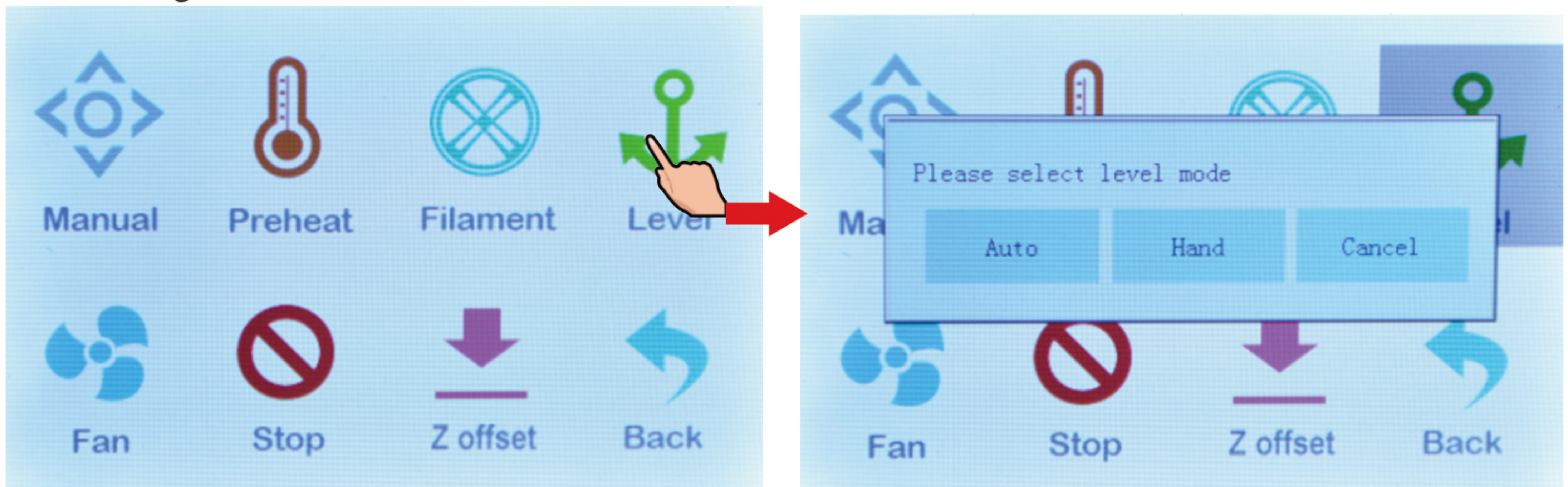


### 5.2.1 Loading and unloading of materials

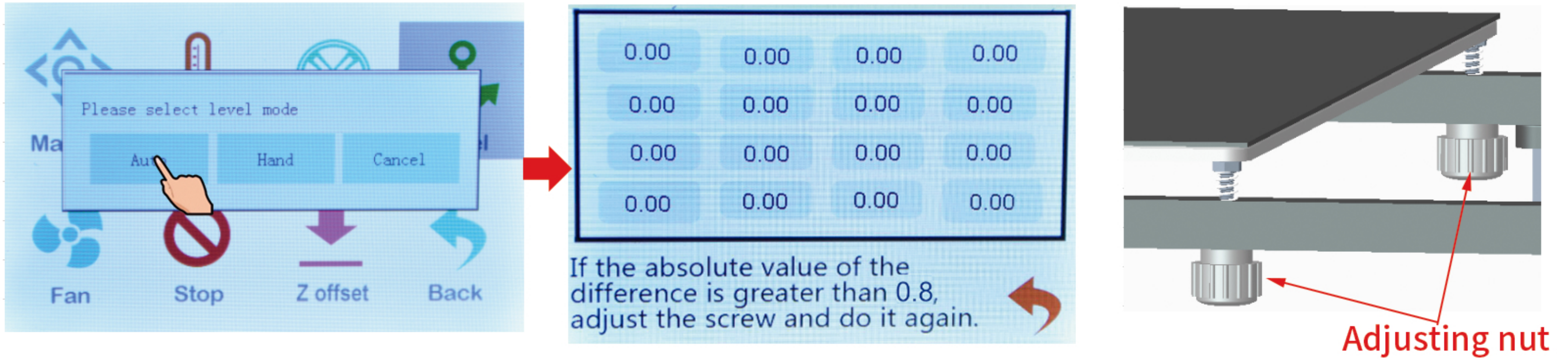
click the icon of loading and unloading consumables to indicate preheating. Remove the consumables to warm up before pulling them out. Set the heating temperature, the temperature reached, click the icon ▲<sup>E1</sup> to return the material. When installing the filaments, make the filaments go straight out into the hole of the filament run-out detector and press down the feeder's pressing block, as shown in the figure. Pass the filaments through the feeder to the filaments pipe and then click the icon to ▼<sup>E1</sup> send the filaments to the nozzle. Click the icon ⓧ to stop.





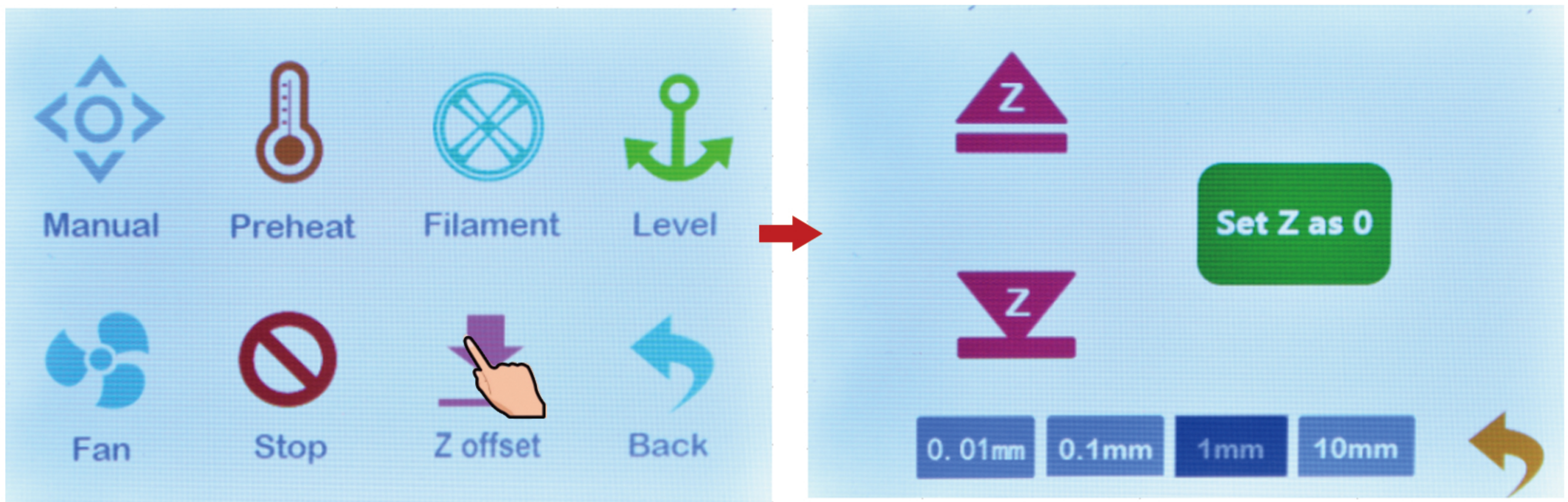
### 5.2.2 leveling



5.2.2.1 click automatic leveling, the machine will move automatically, read the location parameters set and save. If the reading deviates from 0.8 or above, adjust the nut under the platform at that point and then relevel it.

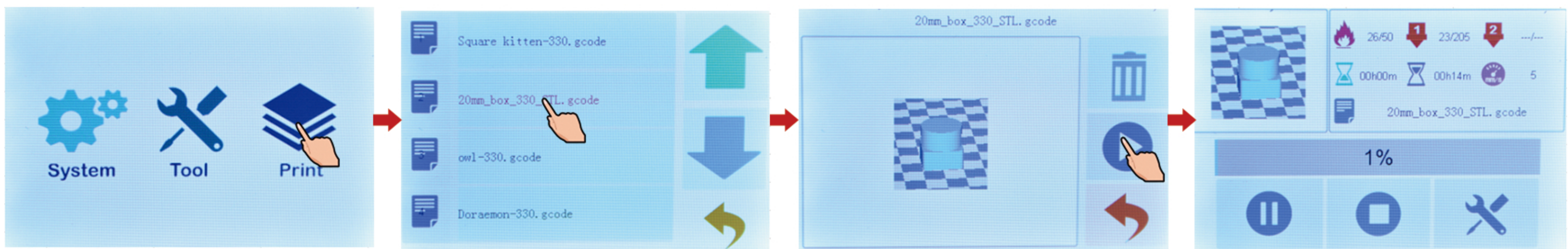


5.2.2.2 click the Z offset icon to enter the Z axis position adjustment. The function of automatic leveling is effective. Select the fine tuning 0.1mm icon, click the icon  Z axis to move up, and click the  Z axis to move down. Adjust the nozzle and platform to A4 paper thickness. A4 paper between the nozzle and the platform moving a sense of resistance, but will not cut paper. Click the icon set Z to zero and save the setting. This function is automatically leveling Z axis compensation, with leveling function used, leveling simple.

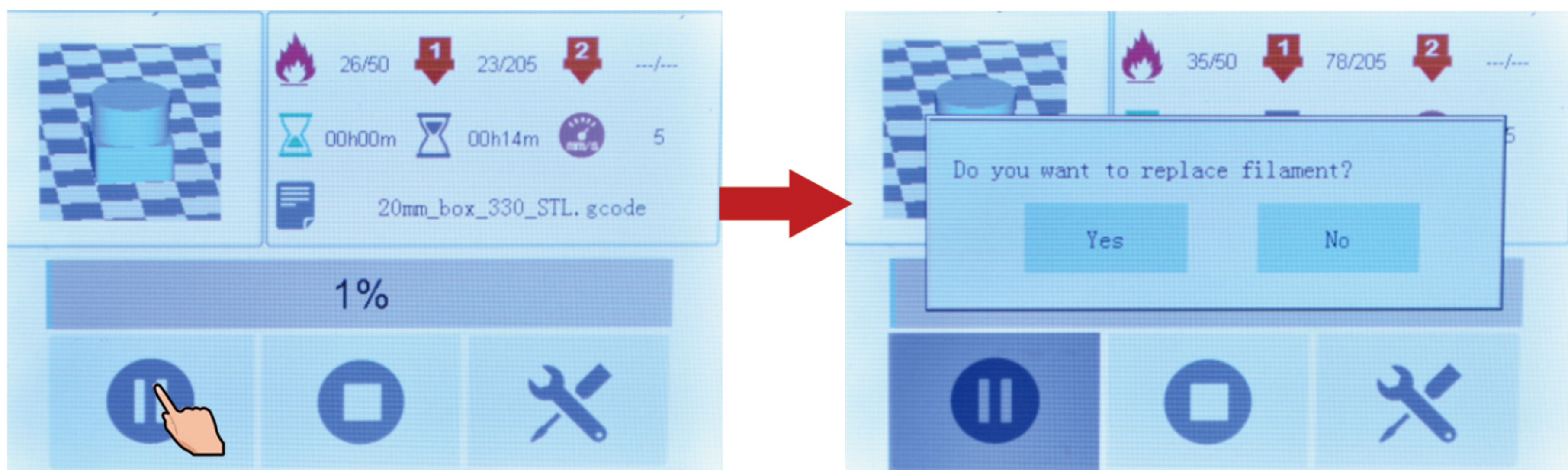


## 5.3 print

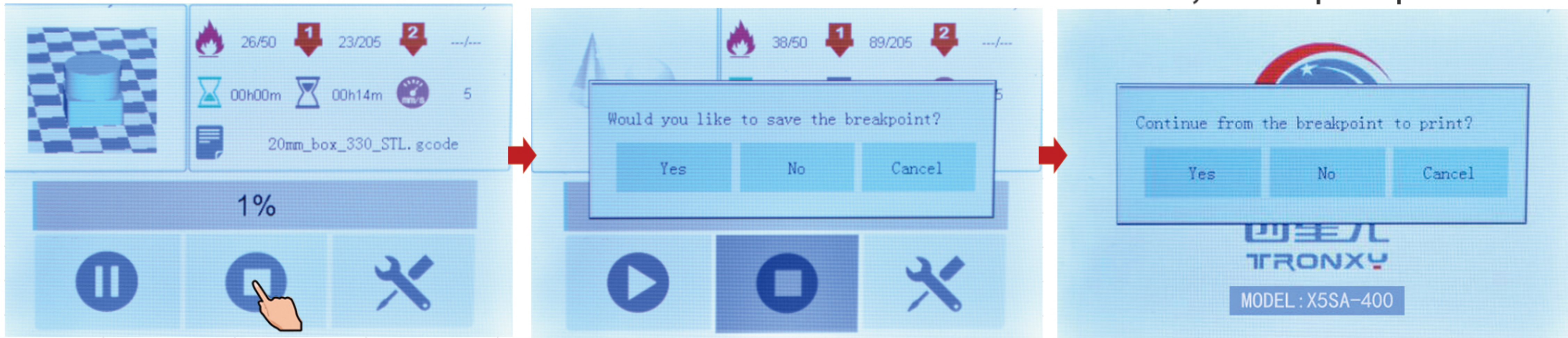
### 5.3.1 print



### 5.3.2 print suspended

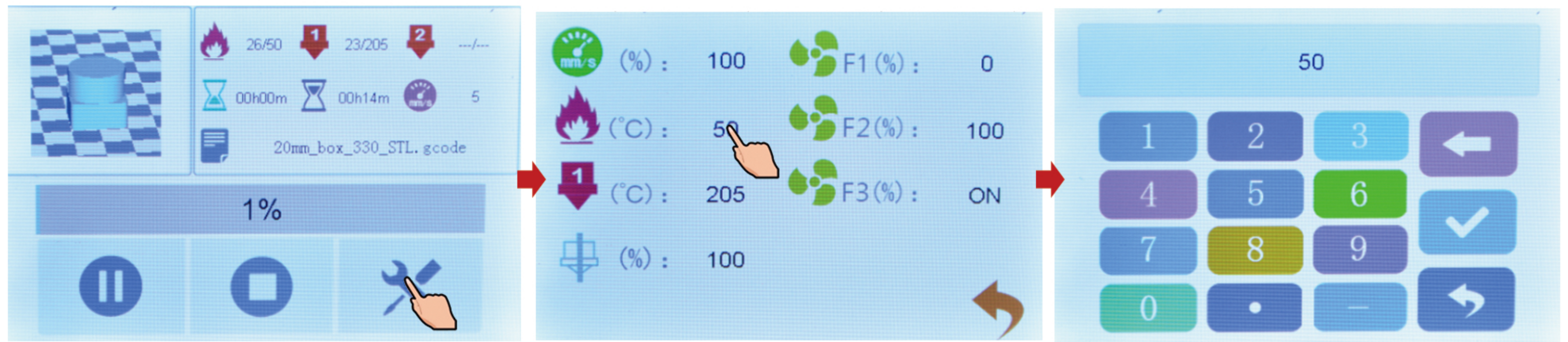


### 5.3.3 print interrupt

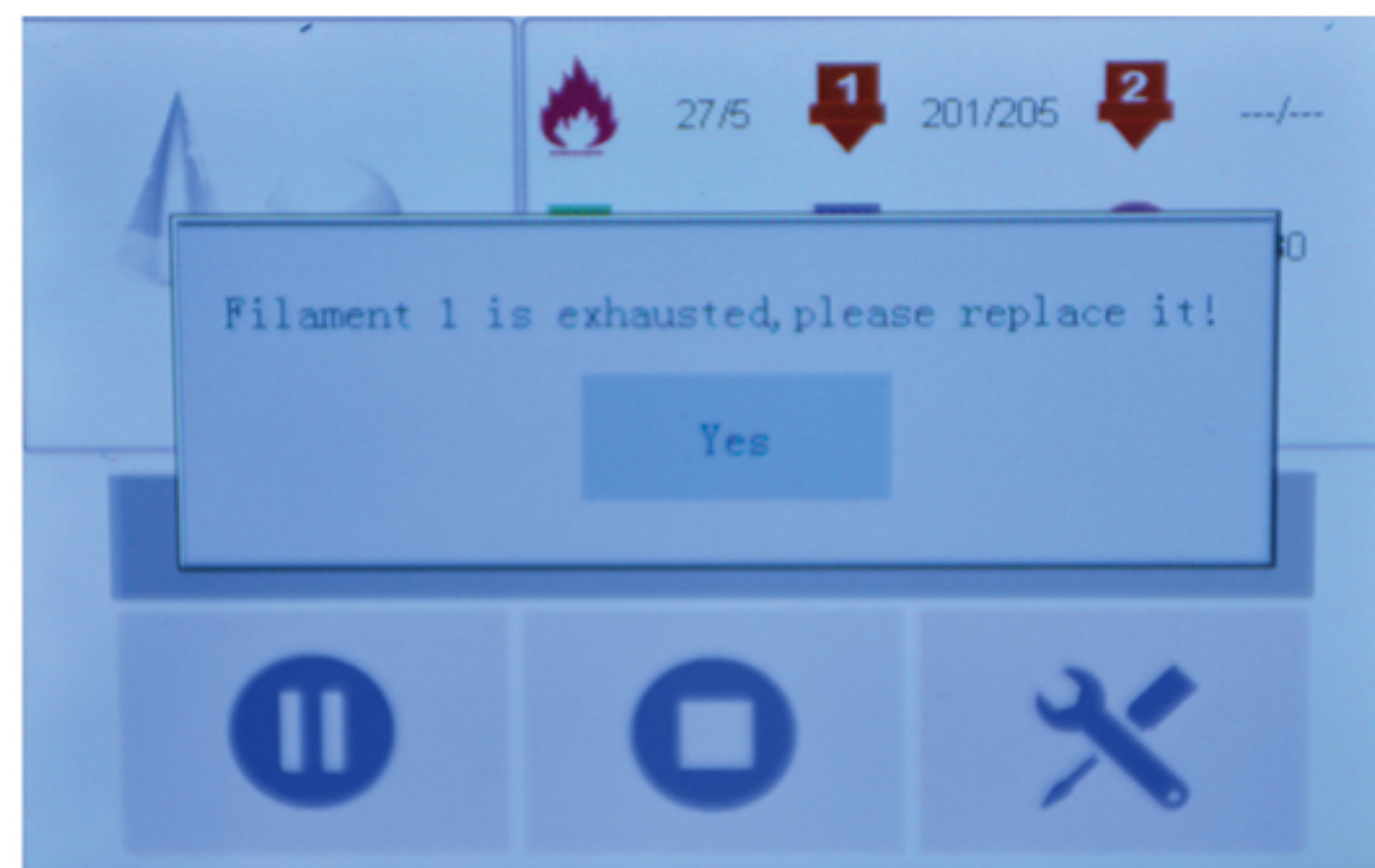


Choice is, reboot prompt

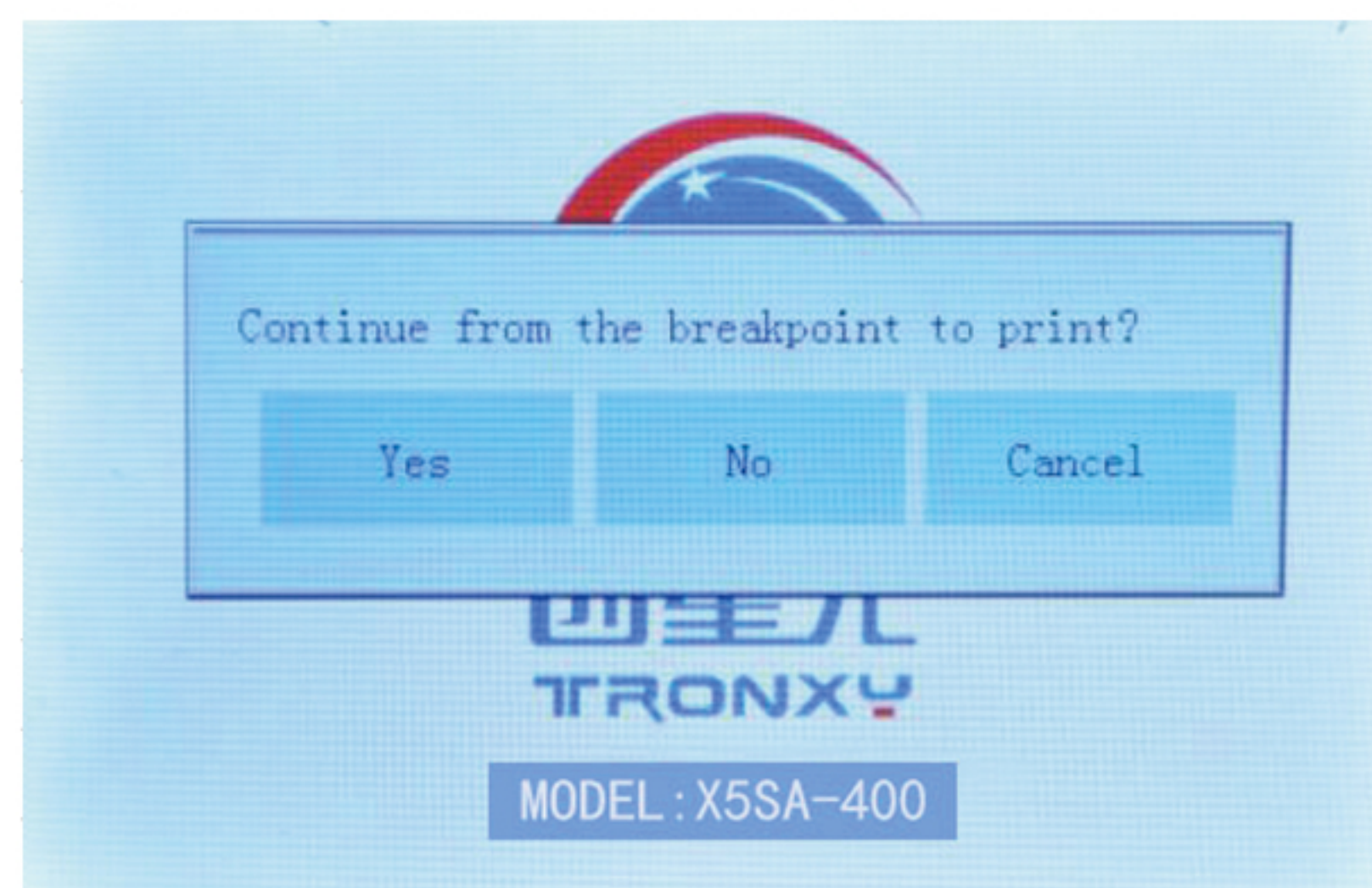
### 5.3.4 in the print parameters changes.



5.4. Filament run out detector: when the machine is working, the consumables are used up, or the consumables are broken and cannot be supplied to the machine, the machine status is suspended, and the screen indicates that the consumables are exhausted. Please replace the consumables. The picture shows that the consumable 1 of dual-color printer is exhausted.



5.5. Filament run out detector: when the machine is printing, the machine will automatically save the current status parameters. When the machine is restarted, the screen will show that the last time it was hit was interrupted. The option is to print from the breakpoint. Select no or cancel, and the parameters are cleared.



1. After power off please move the nozzle far away from the model, but please don't move the model and platform and Z axis, The stepper motor controls the level of Z axis.

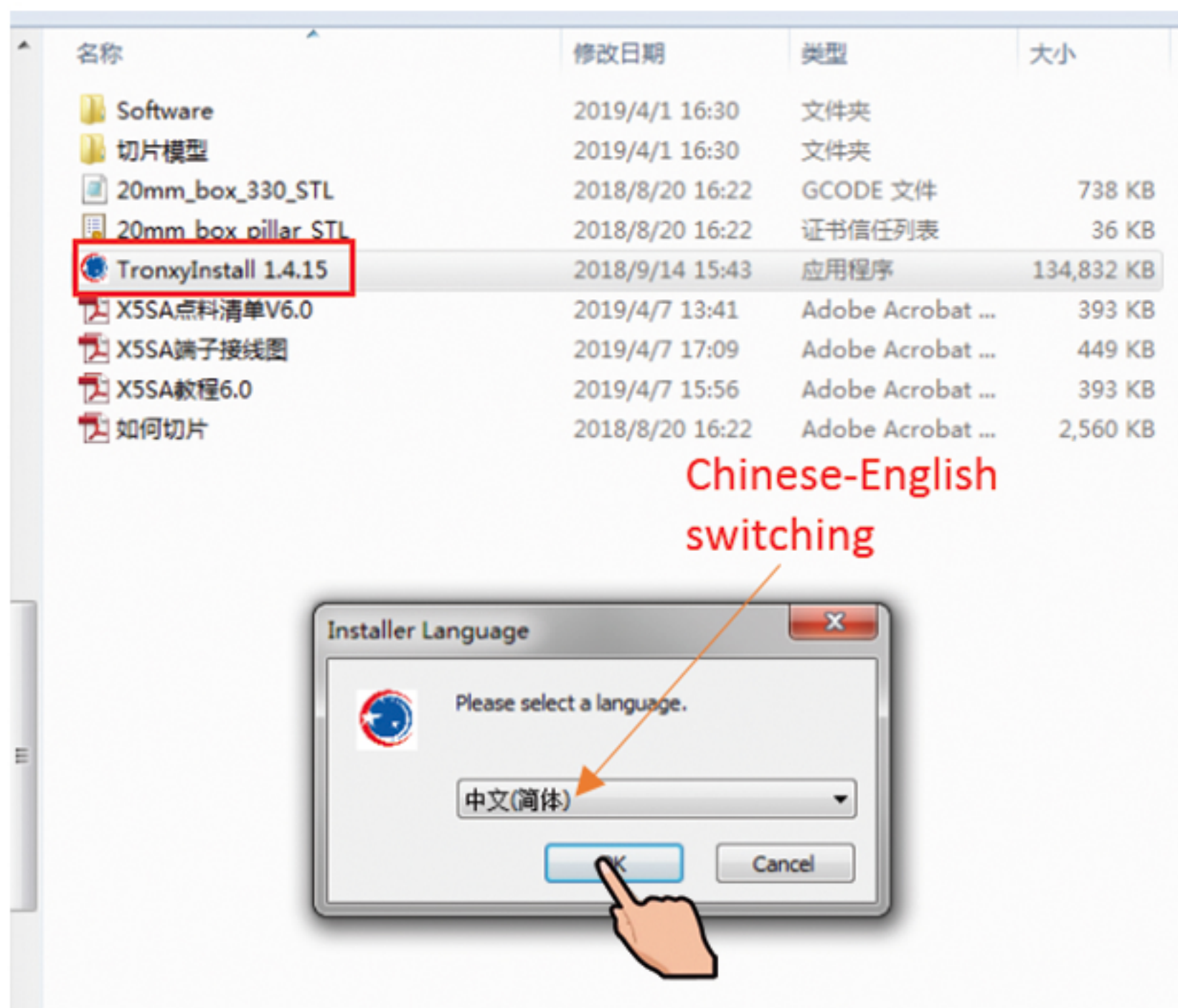
2. Support the power failure resume to print under offline condition.

3. The model can not be seamless docking totally.

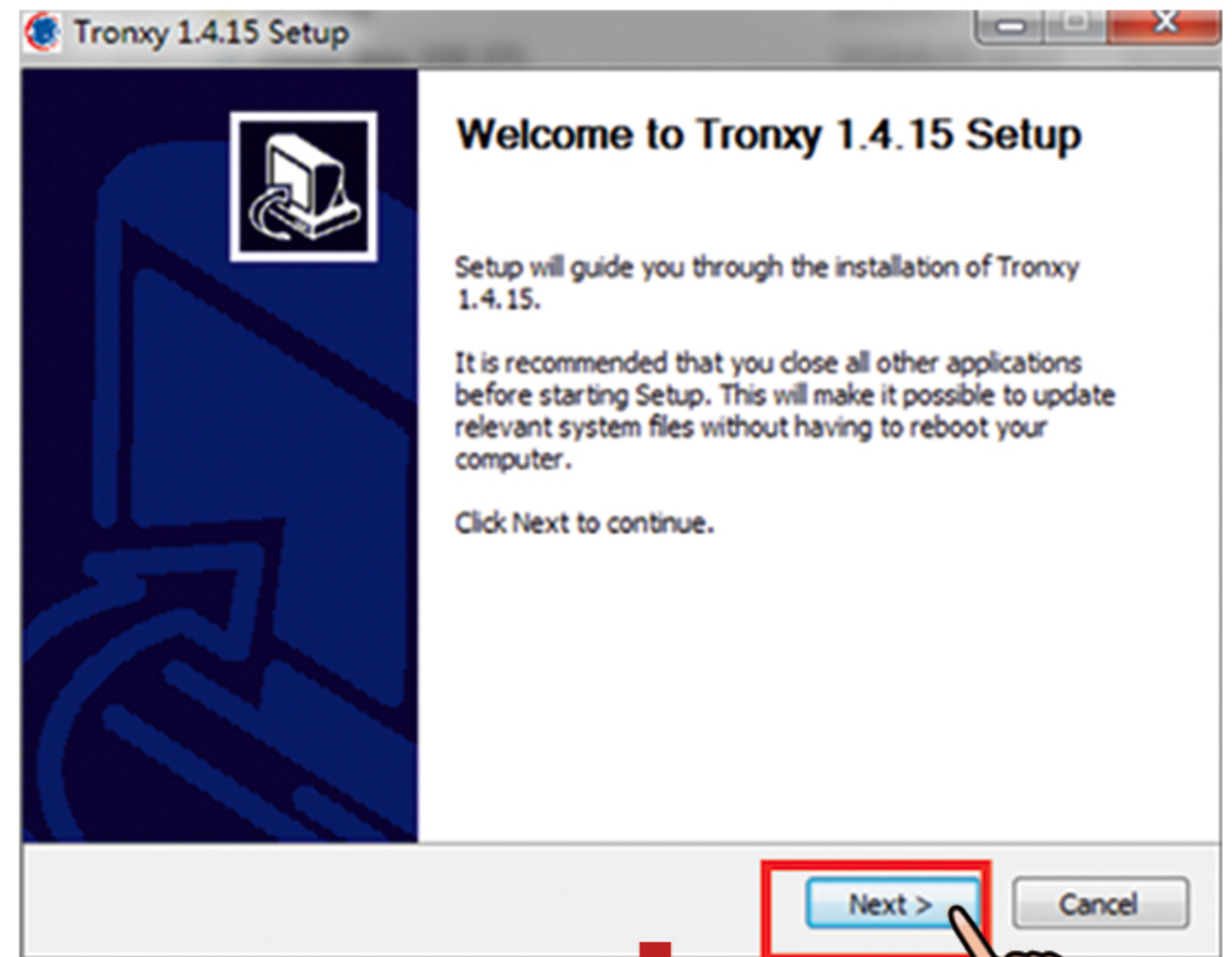
# 6. Software installation instruction

## 6.1 slice software instruction

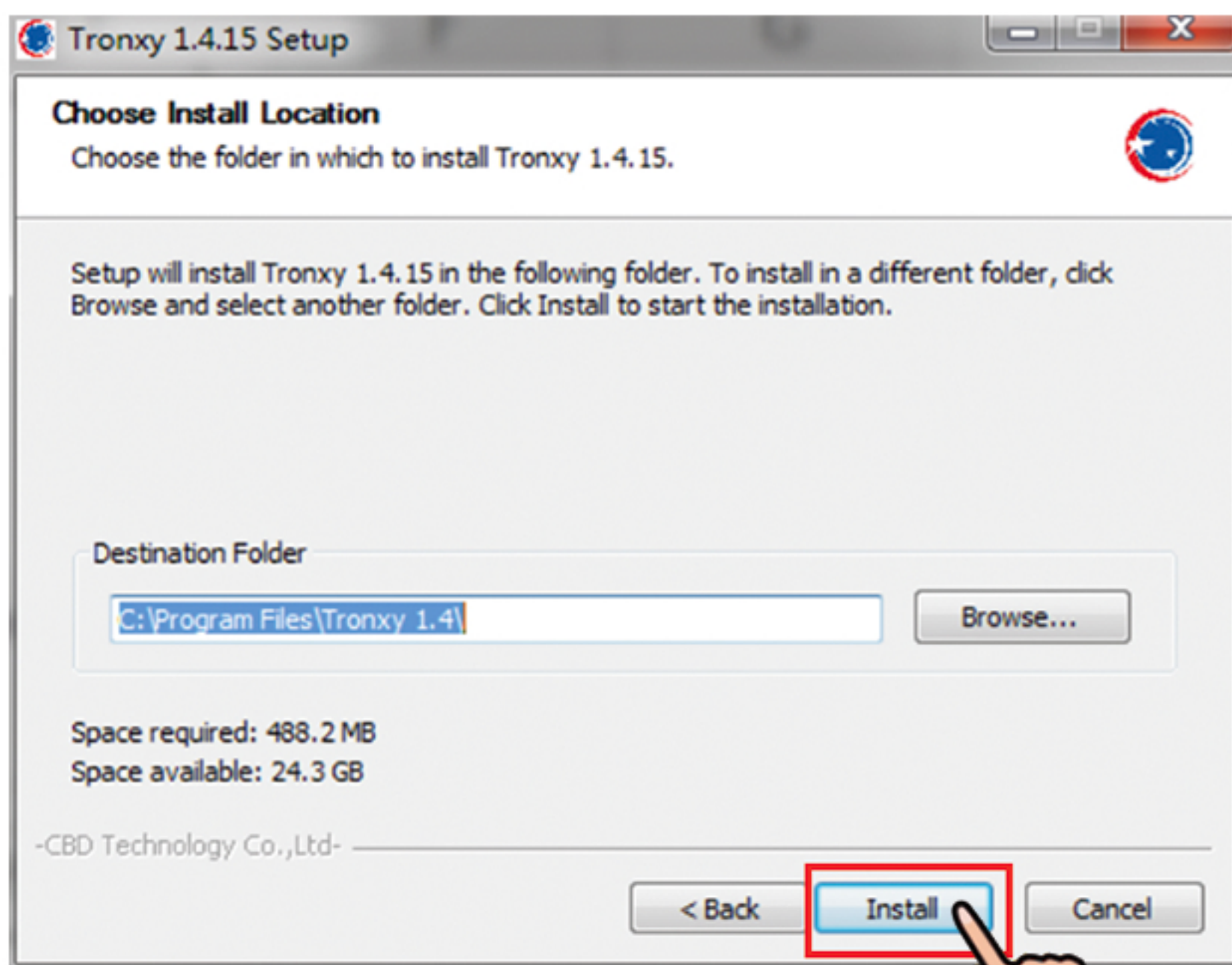
TF card has slice software "TronxyInstall.exe", according to the following installation steps.



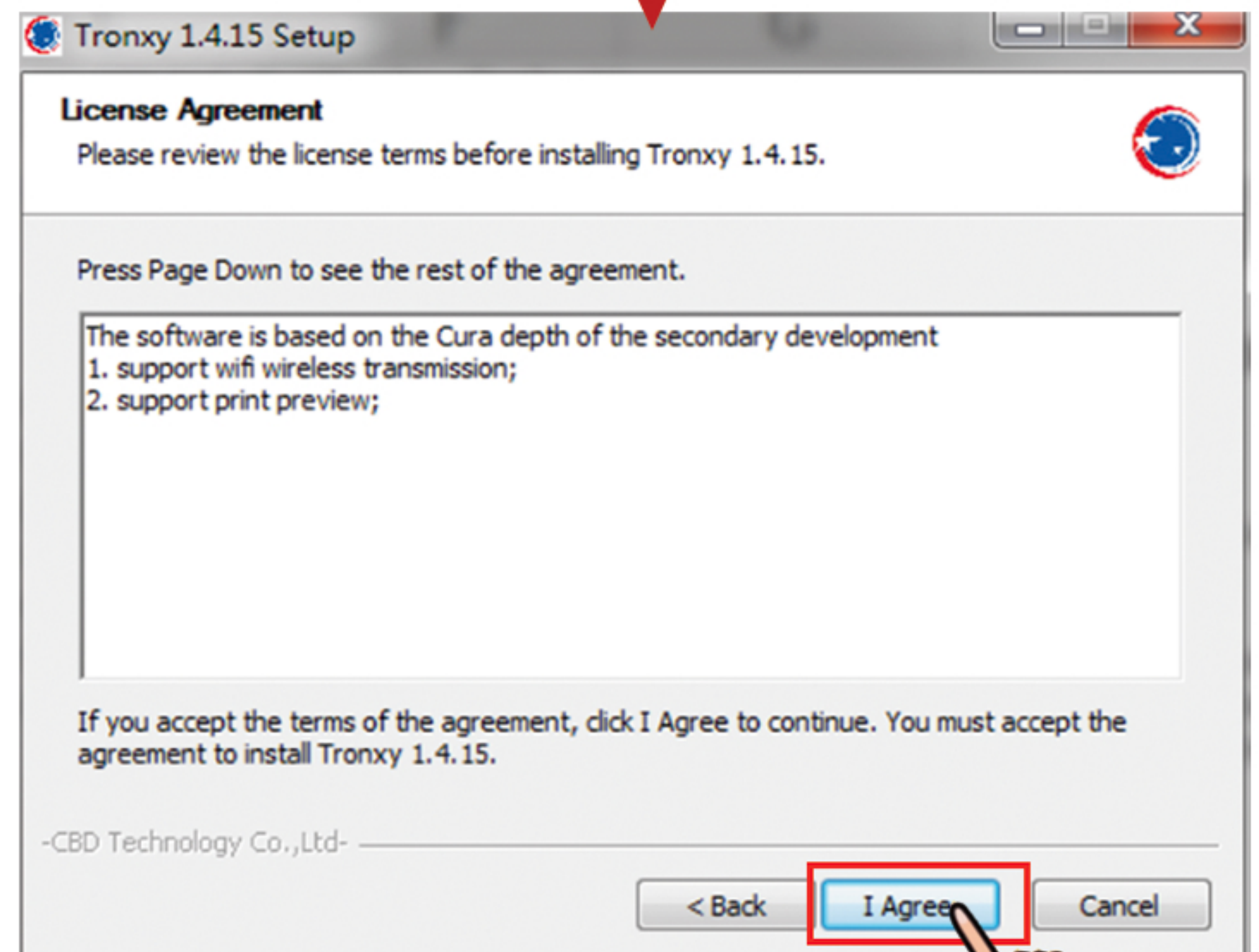
1. Double-click the icon file installation, select the language and press the OK button.



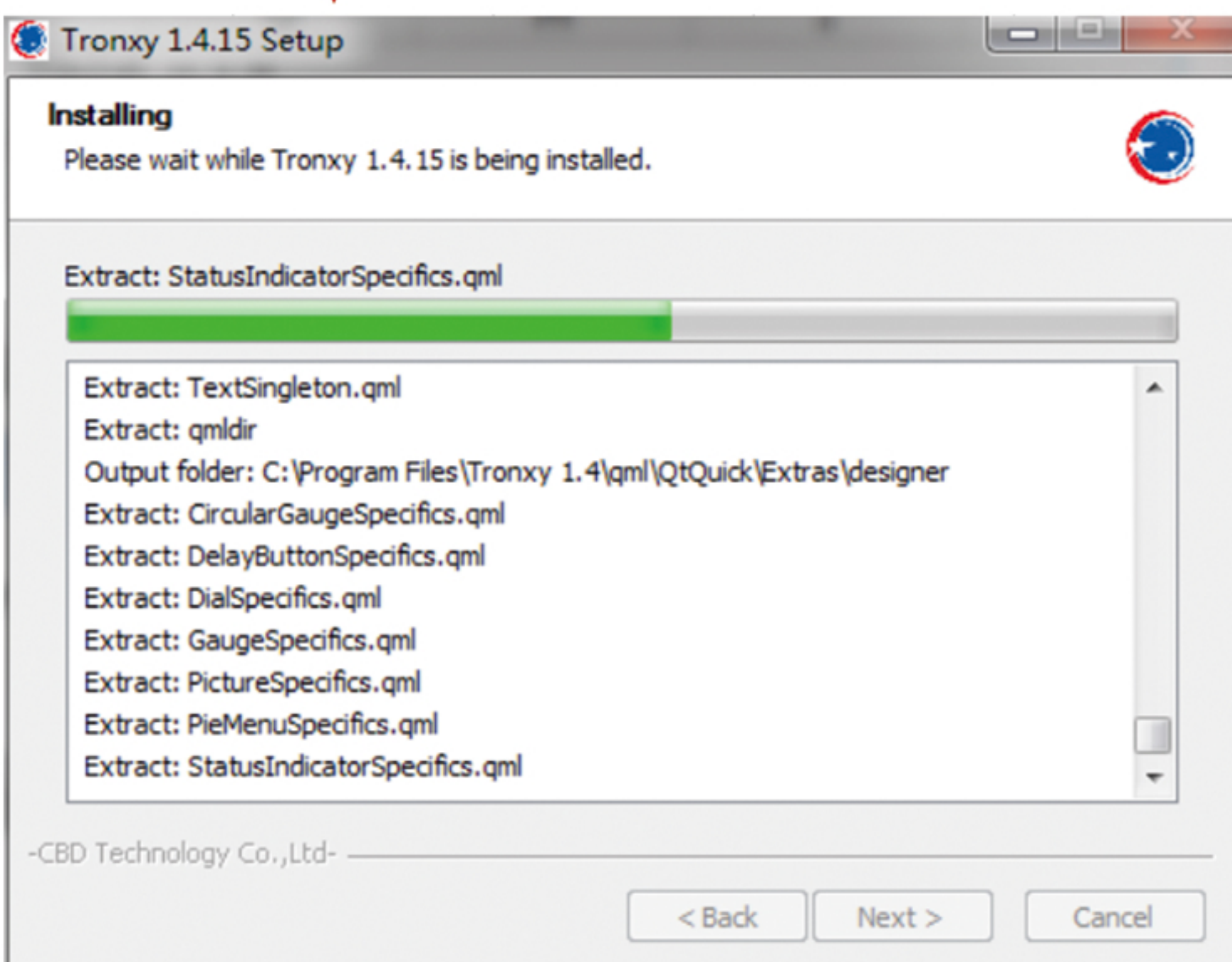
2. Click next.



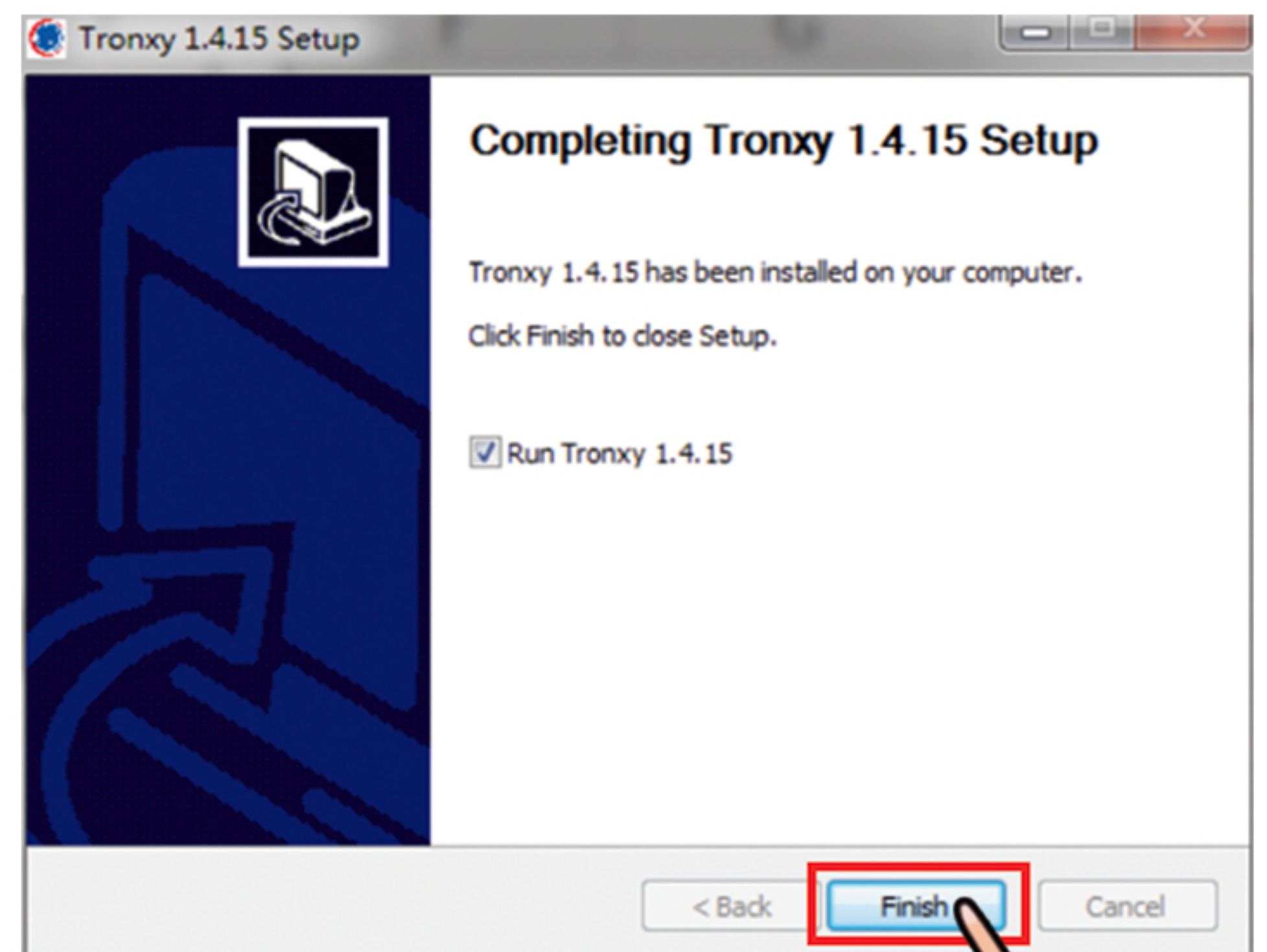
4. Determine the browser installation directory.



3. Click on accept



5. installing



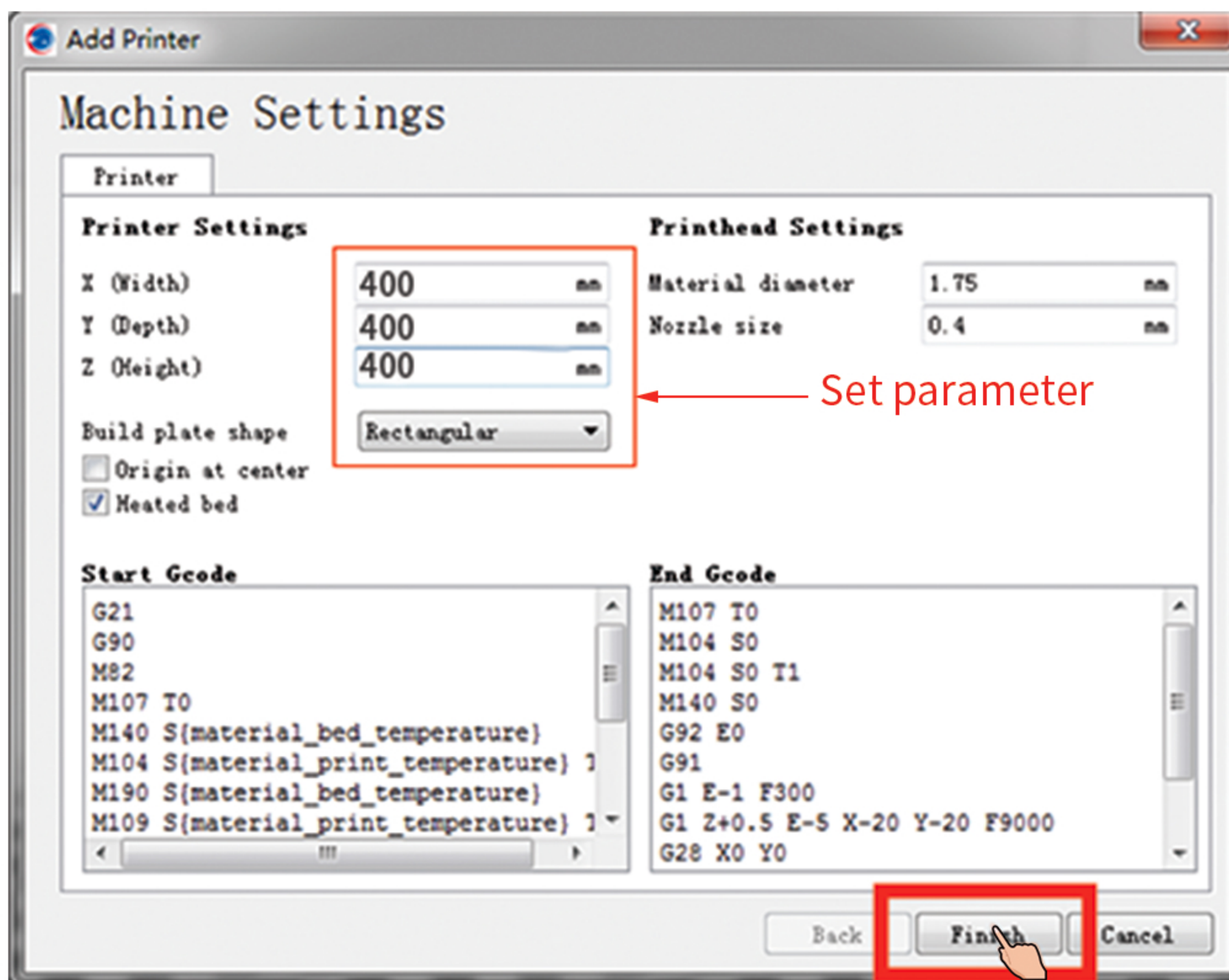
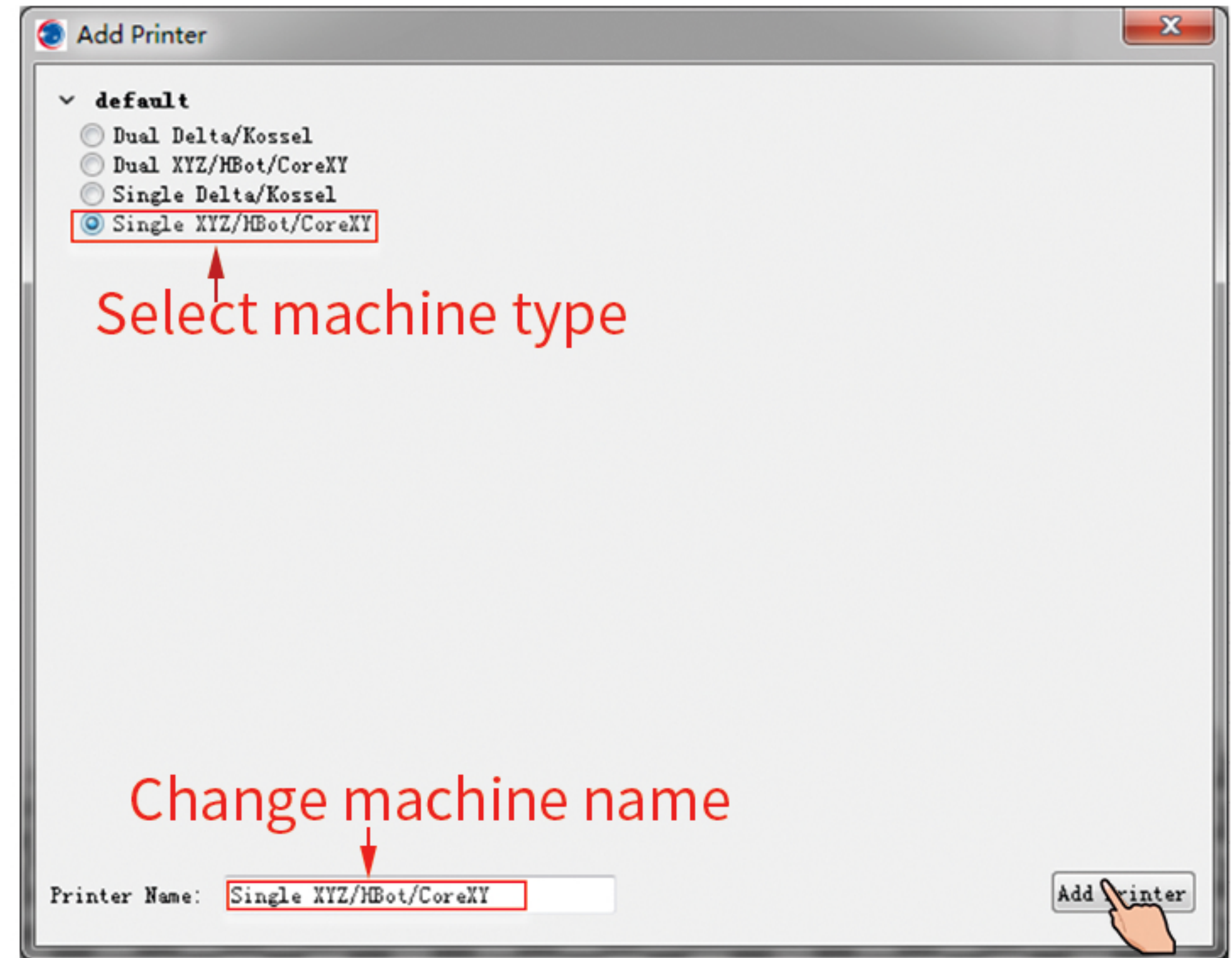
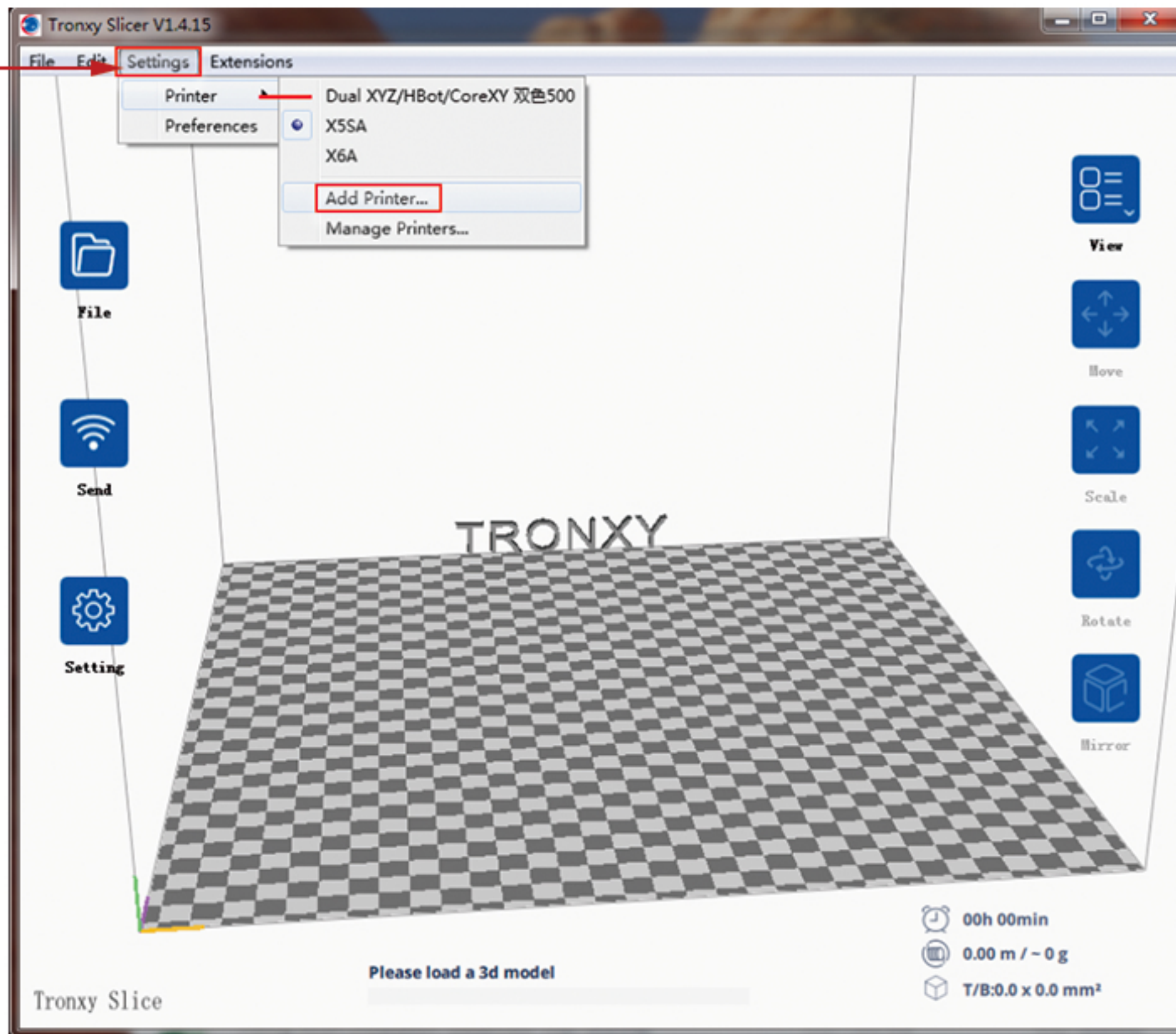
6. Click the "finish"



# 6.2 slice software set

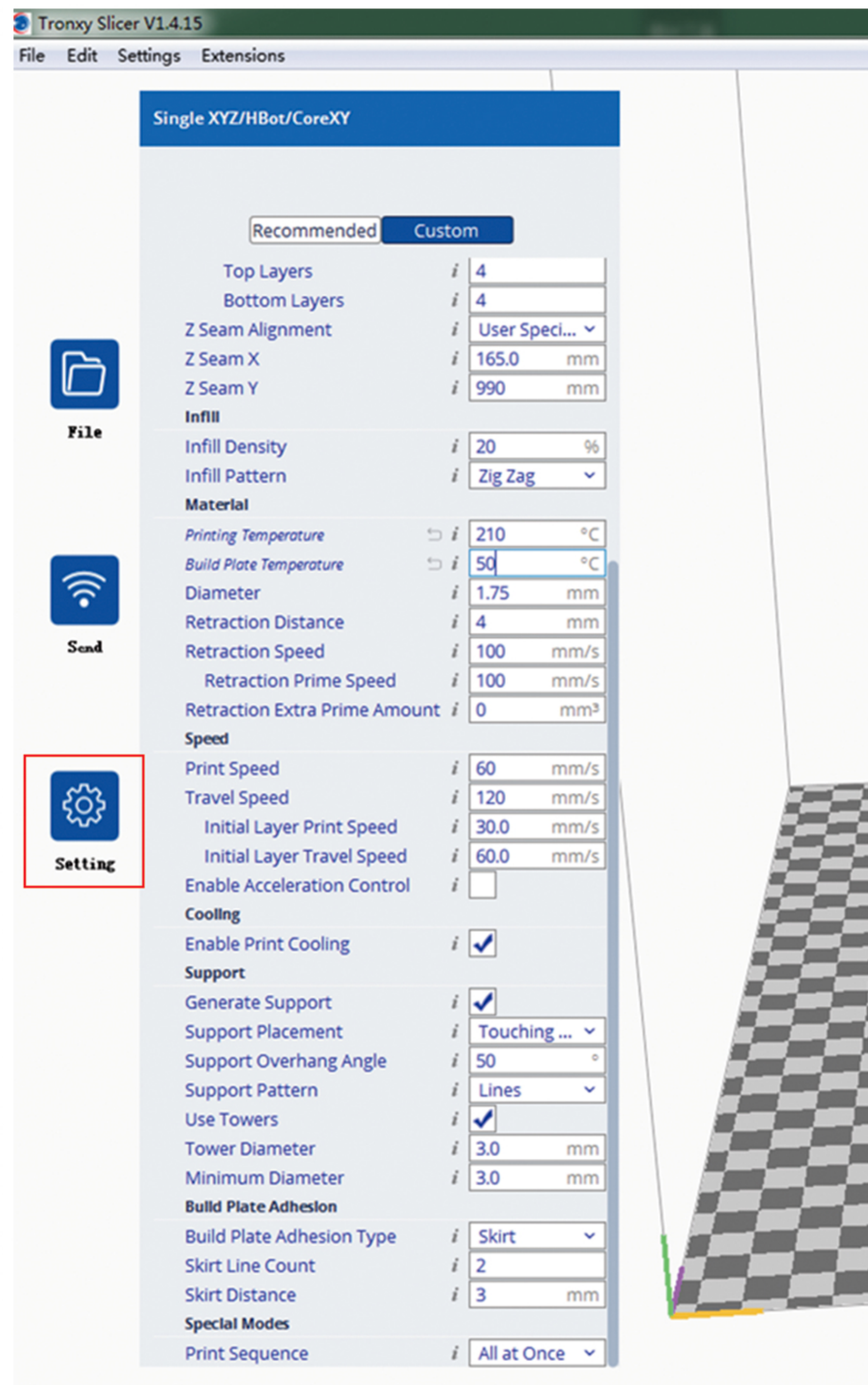
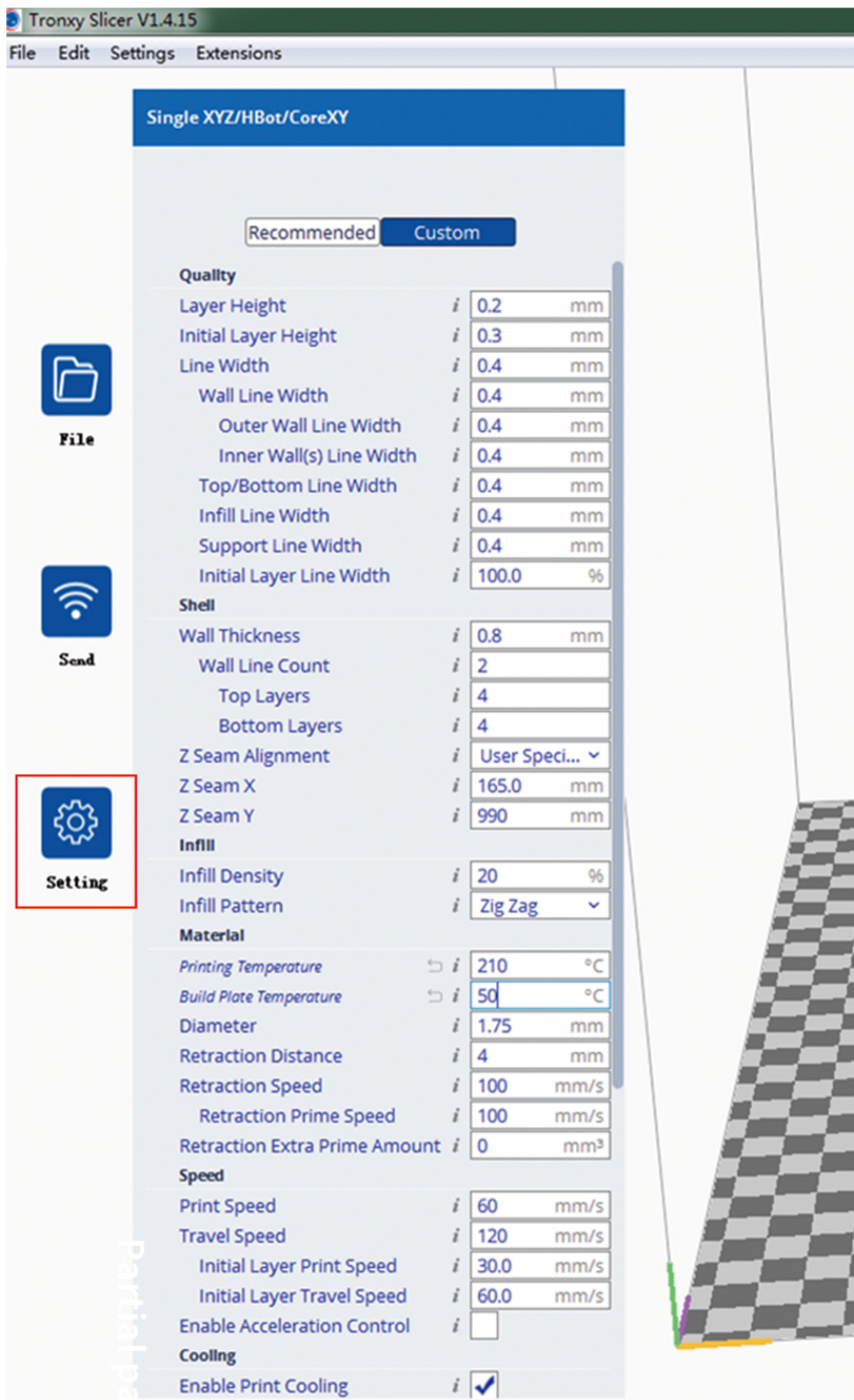
6.2.1 According to the hint to "add the printer", turn on the slice software.

According to the cues



6.2.2 Set slice parameter. Provide the reference but you can change basis on yourself.

Layer thickness	0.1-0.3
Print temperature	PLA - 200~210°C ABS - 230~240 °C
platform temperature	PLA - 50°C ABS - 80 °C
Moving speed	60-120mm/s
Print speed	normal 60mm/s, layer speed 30mm/s
Beam	select on the model struture
platform touch	Small touch area use it



## 7 General problems

**1. nozzle block :** Heat the nozzle to over 180°C , Use nozzle 0.4mm (default nozzle diameter) to clear the blockage until the manual feeding becomes normal.

**2. Throat blockage:** The inside of the print head is a straight-through pipe .If the feed pipe is not inserted, it will easily cause the pipe to block and need to be dismantled to clean the pipe.

### 3. The wire is not smooth:

**a.** Consumables knotted, or Teflon feeding tube extrusion deformation, please clean the supplies and Teflon feeding tube to make sure the smooth feeding.

**b.** If the print temperature is too low, please set the appropriate temperature for the consumables and refer to consult the referential temperature.

**c.** The print head is not cool enough ,please make sure the fan works well.

**d.** Print for a long time under the maximum speed of the machine, please reduce the speed aptly.

**e.** The filament is not so good. Please clean the redundant materials in the print head and use the better filaments instead.

#### **4.Problems such as not reading the card and failing online:**

**a.**The SD card can be read on the computer, but it cannot be displayed on the machine: please format SD card retry, GCODE file is modified to a uniform format(There is no special punctuation), and the SD card slot is not in good contact.

**b.**If the SD card can not be displayed on the computer, then SD card is damaged.

**c.**Unable to offline: the serial port is not selected, the baud rate is not selected, the driver software is not installed or the installation fails, and the USB data cable is damaged.

**d.**External signal interference can not be connected.

**5.The print head leaks:**the nozzle is loose, the heating block is loose, the throat is loose, tightened or worn due to wear and tear, and the accessories are replaced.

#### **6.layer mistake:**

**a.**The belt is loose , please adjust the belt properly .

**b.**Print speed is too high , please change the speed properly.

**c.**The drive current is not enough , please adjust the mainboard current properly

#### **7.Abnormal noise and jitter of the X/Y/Z axis motro:**

**a.** The corresponding limit switch cannot be triggered normally. Please check if the corresponding motion axis has interference, especially when returning to zero.

**b.**The motor wiring is loose. Please check the wiring again.

**c.**The motor is abnormal,please exchange the motor to exclude the poor motor.

**d.** The motherboard driver output is abnormal (please contact us).

#### **8.Touch screen anomaly:**

**a.**Please check if the connection cable is loose and make sure the cable is well connected.

**b.**The screen is good.The vibration causes uneven pressure on the screen assembly resulting in some parts click the screen and there is no response.

Please loosen the lock nut and readjust it.

**c.**If the touch screen is damaged due to transportation, please contact us.

#### **9.The first layer of the model don't stickthe platform:**

**a.**The underlying print speed is too fast, please lower the print speed.

**b.**The printing platform has not been processed,please affix PVC stickers or textured paper.

**c.**The nozzle is far from the printing platform.Please adjustthe distance of the nozzle and print platform to 1 A4 paper thickness.



ABOUT US



[www.tronxy.com](http://www.tronxy.com)

Shenzhen China