

Z8SU-M3

User Manual nseL wguang

ZONESTAR

!!Notice!!

Please make sure the **110V/220V AC Voltage Select switch** has been set to the correct position before power on.

After installed, please refer to **Verify assembly and wiring.pdf** to check.

If your printer has a mixing color hotend, please read **Mix Color HOTEND User Guide.pdf** before printing anything. And we suggest you print single color 3d object as your first works, and before printing, use the hotend clean tool to close the unused channel.

Before use the SD card to print, please backup the files in SD card to your PC.

Please check the parts list before installation. If you find any missing parts, please take photos and contact us immediately

!! ATTENTION !!



Please strictly follow the standard operation when installation.



Please put the printer away from the reach of kids.



Must be guided by adults when children are installed or used.



Take care when installation, to avoid electrical shock hazards.



Caution: Hot!

Hotend has high temperature even the printer stop working.



Caution: Hot!

Hotbed has high temperature even the printer stop working.



Please keep well-ventilated condition! May produce toxic gases when printer working.

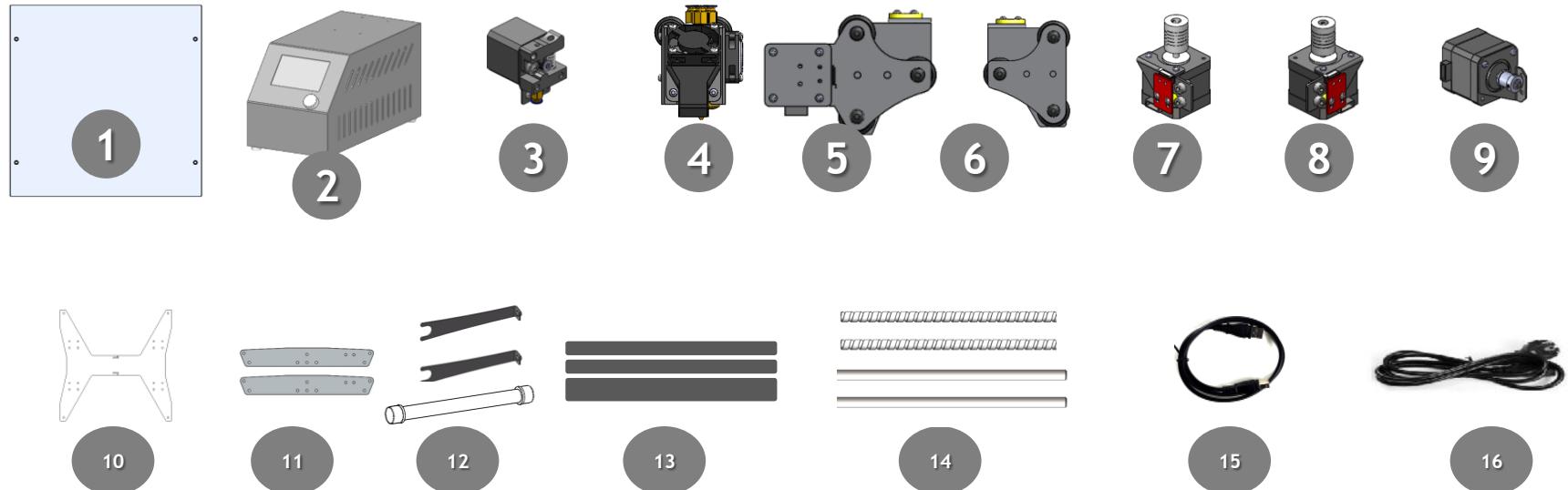


Please make sure you have set the AC power select switch to the correct position before power on.



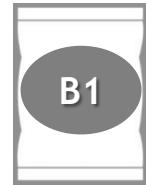
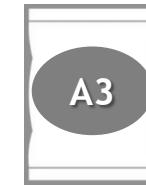
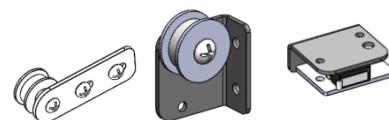
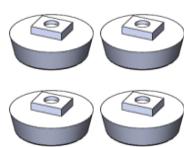
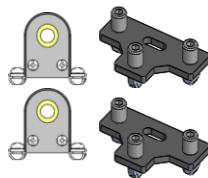
For mixing color printer, must load filament to both of the extruders, even if you print single color 3D object.

Parts List



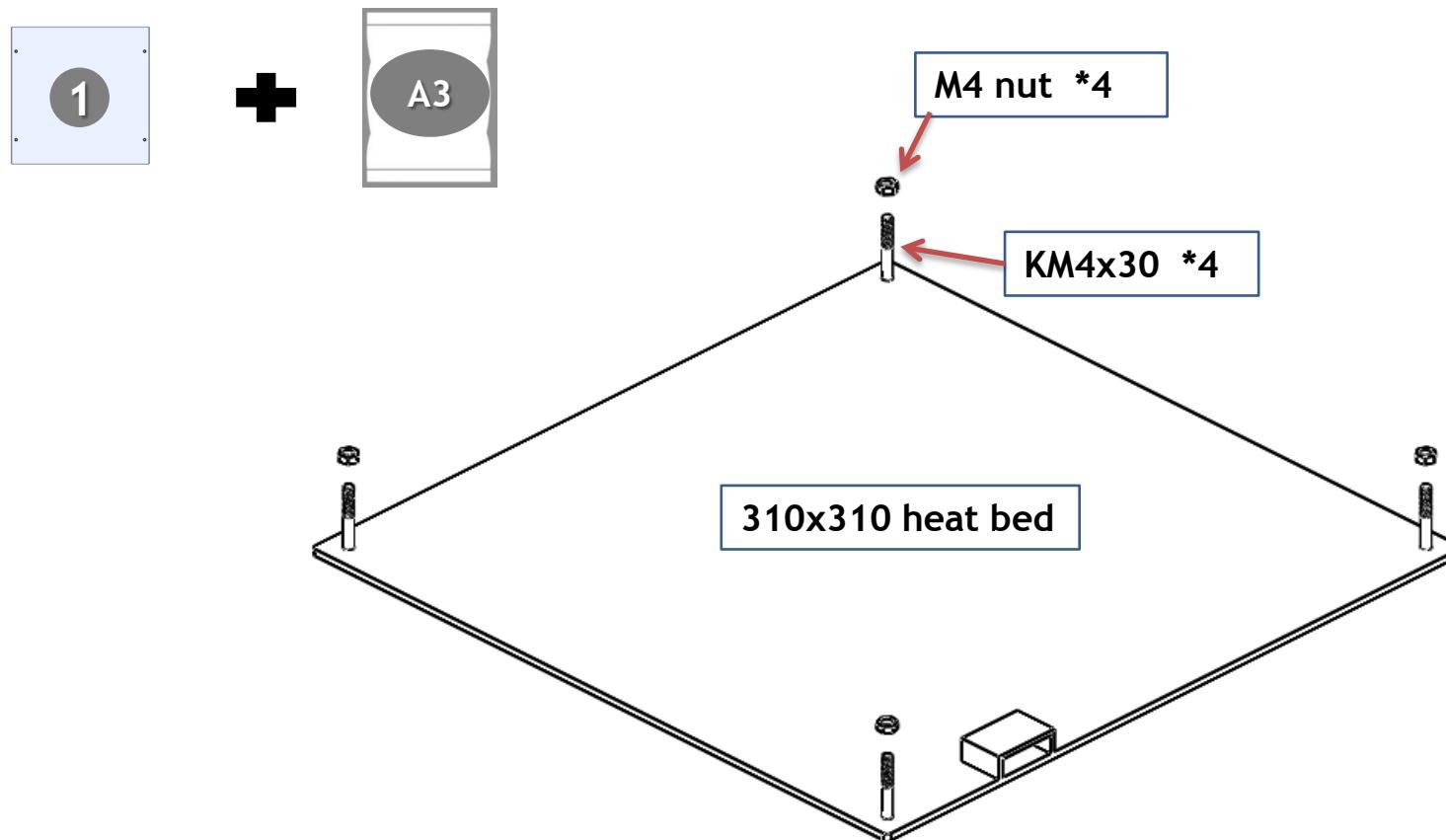
1	Super Base Hot Bed	9	Y Driver
2	Control box	10	Hot bed bracket
3	Extrusion feeder	11	Y-axis bracket
4	Print head (Hotend module)	12	Filament roll bracket
5	Z carrier left (with X motor)	13	Aluminum profile (Total 8 pcs)
6	Z carrier right	14	T8 lead screw x2, Slider rod x2
7	Z driver left	15	USB cable
8	Z driver right	16	Power cord

Parts



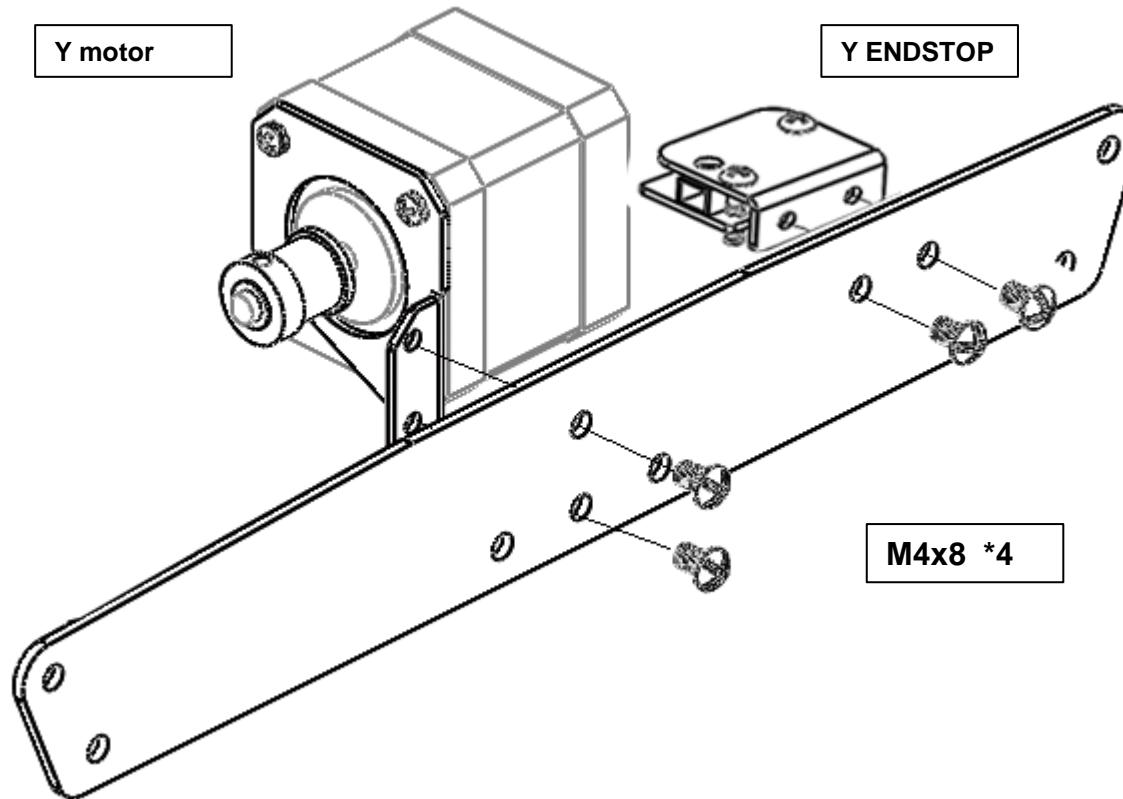
A1	Lead screw fix module/Z-axis bracket/Rupper pads	B1	Tools
A2	X idler/Y idler/Y Endstop module	B2	PTFE (filament guide) tube/Belt/cable tie/LCD cable/profile End Cover
A3	Screws and strings		
A4	SD card/Nozzle(gift)		

Assemble Heat Bed



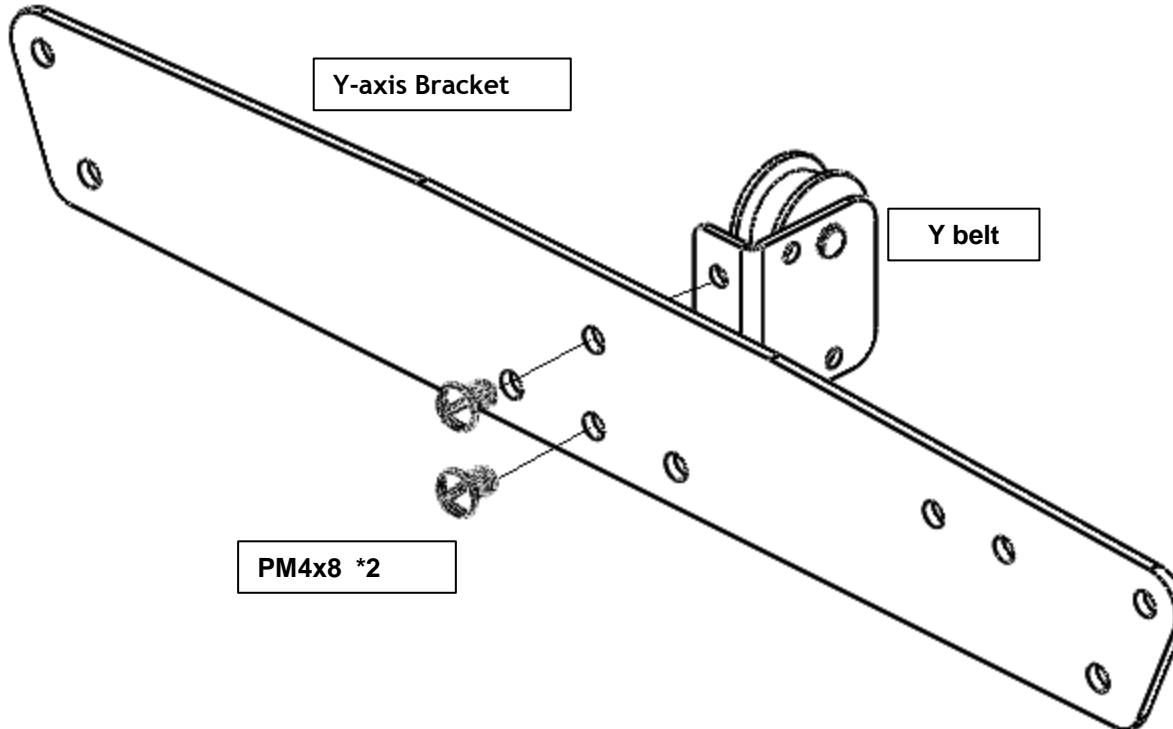
Note: Don't tighten the screw in this step.

Assemble Y-axis driver



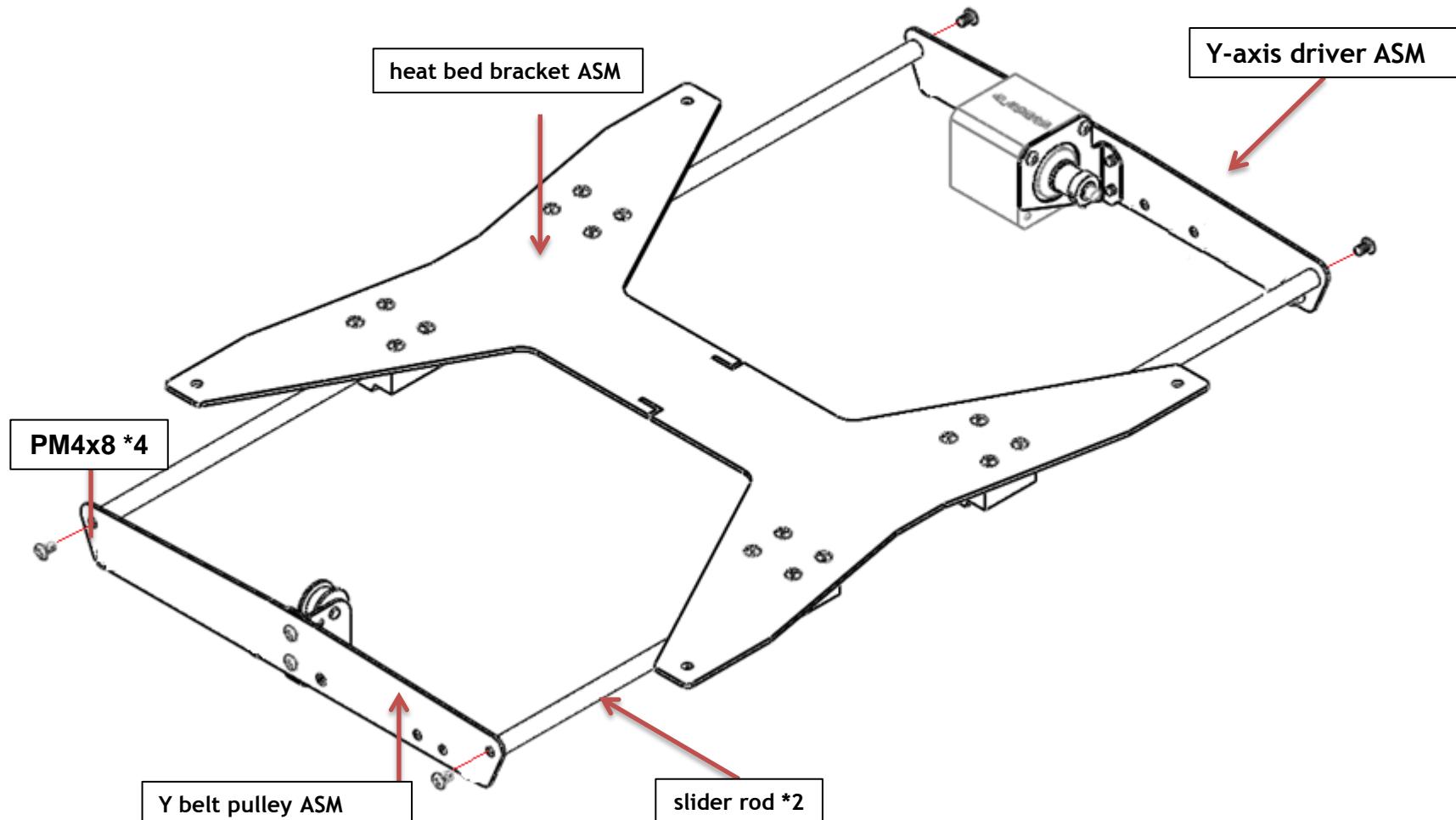
Note: The screws are pre-installed on the parts, take down them before installation.

Assemble Y belt pulley



Note: The screws are pre-installed on the parts, please take down them before installation.

Assemble heat bed bracket



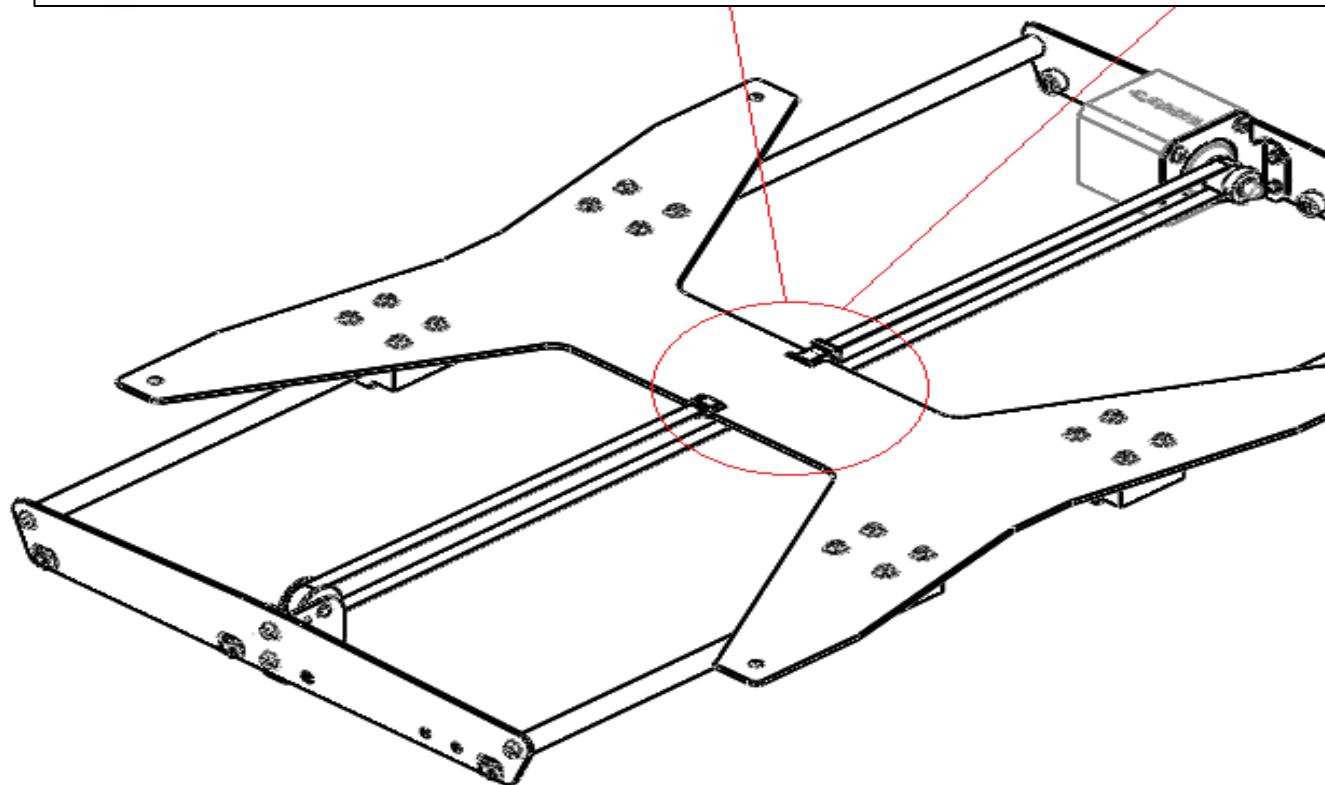
NOTE1: The screws are pre-installed on the parts, take down them before installation.

NOTE2: Note that the polished rod should be installed to the lowest position.

Install Y belt

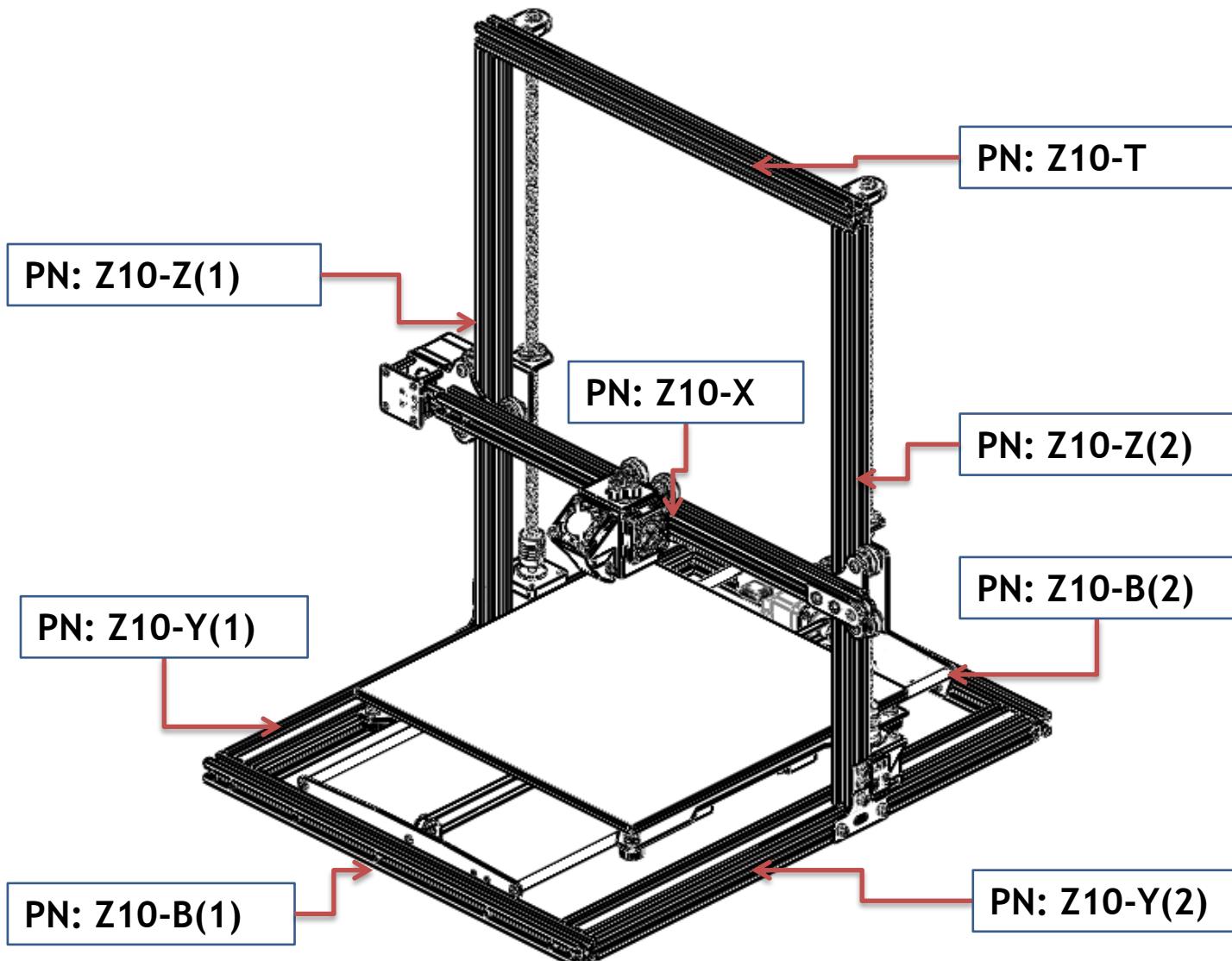
B3

Tighted the belt and use 2 PCS cable tie to lock it on the heat bed bracket

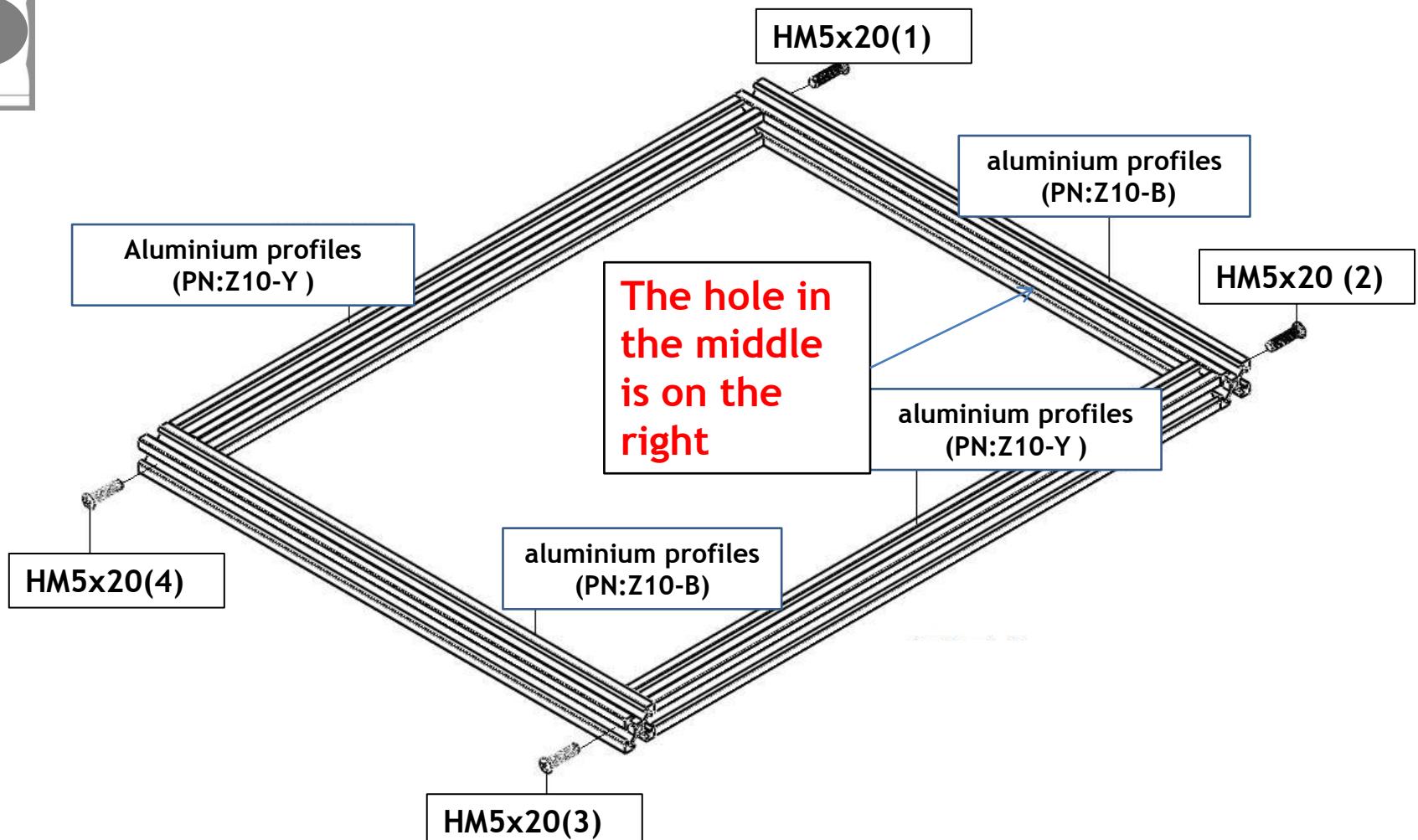


NOTE: Check if the hot bed bracket can move smoothly, if not, please loosen the screws which fixed the bearing and lock them again.

Prepare: aluminum profile overview



Assemble Framework : bottom

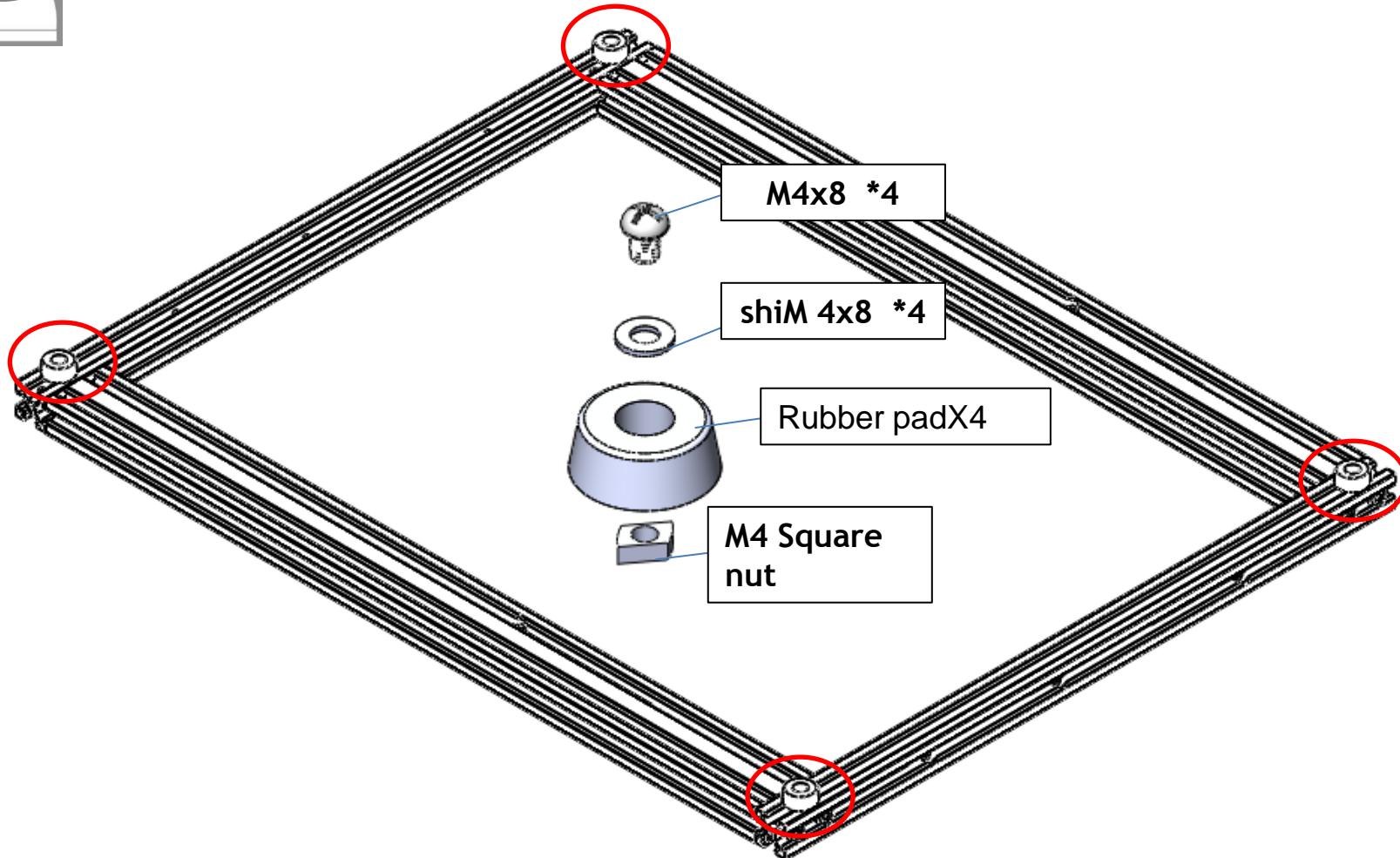


Note 1: Note holes position of the aluminium profiles Z10-B

Note 2: Level all of the aluminium profiles before locked the screws.

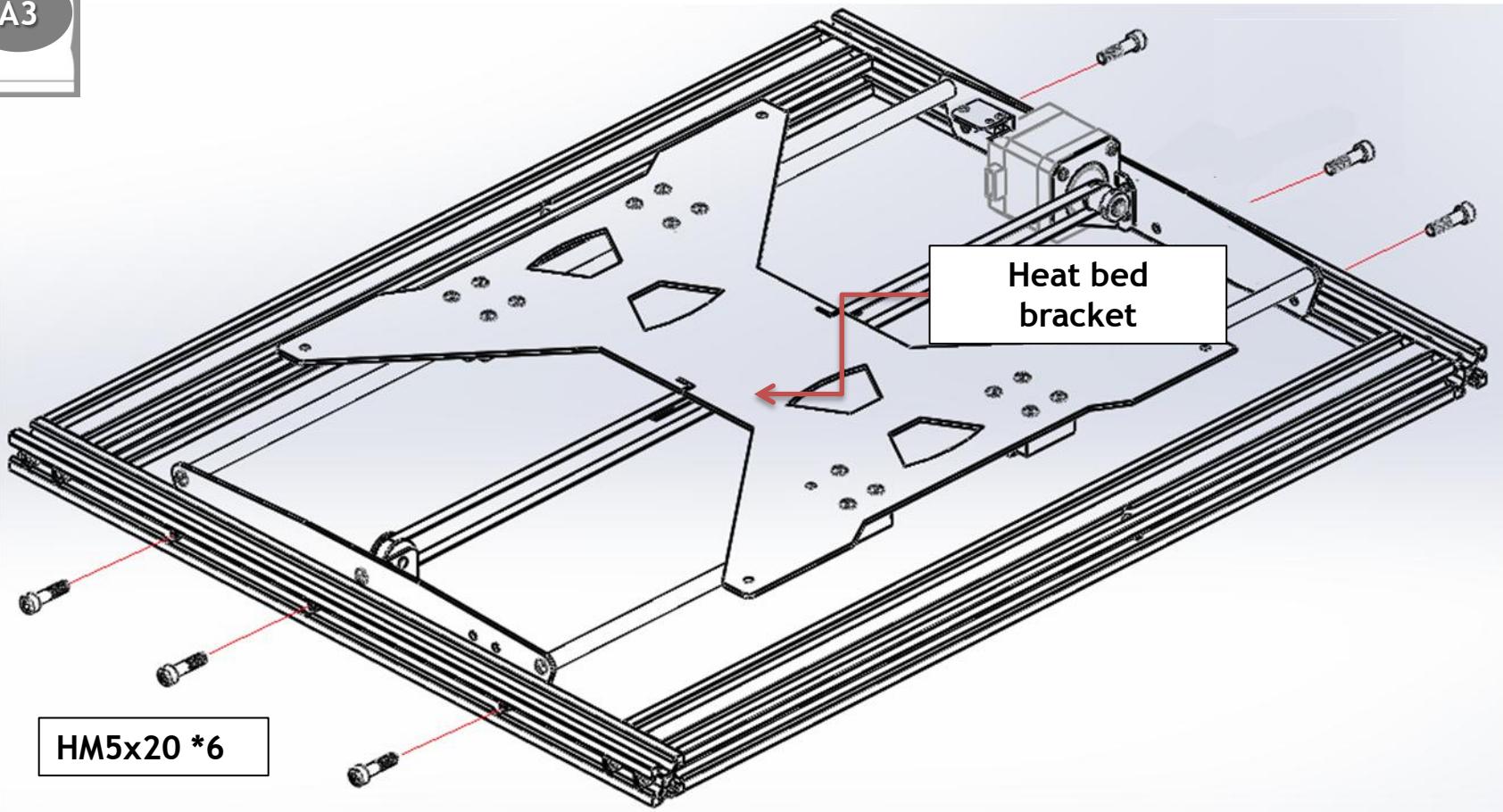
Install Rubber pads

A1



Install heat bed bracket

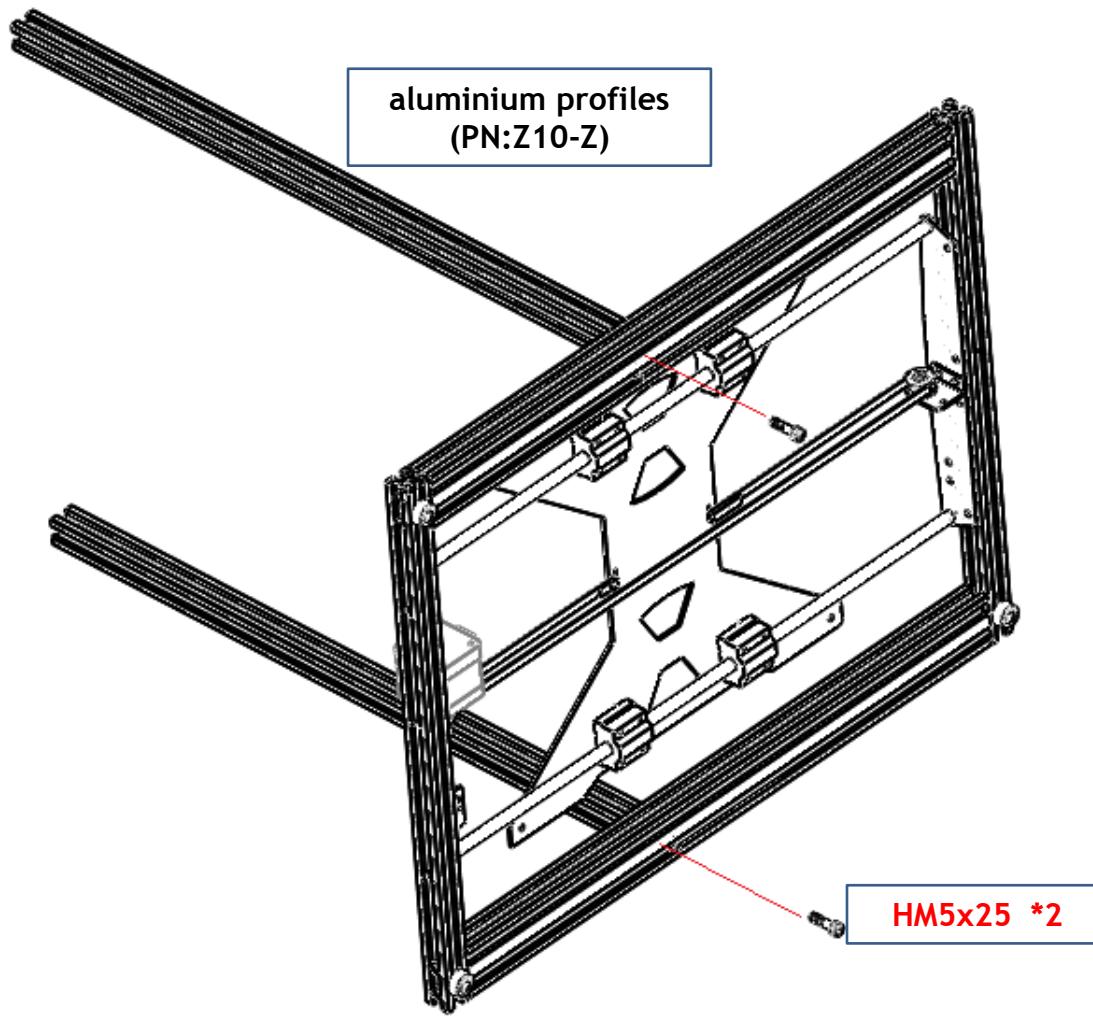
A3



NOTE: The picture of the hot bed bracket is slightly different from the actual part.

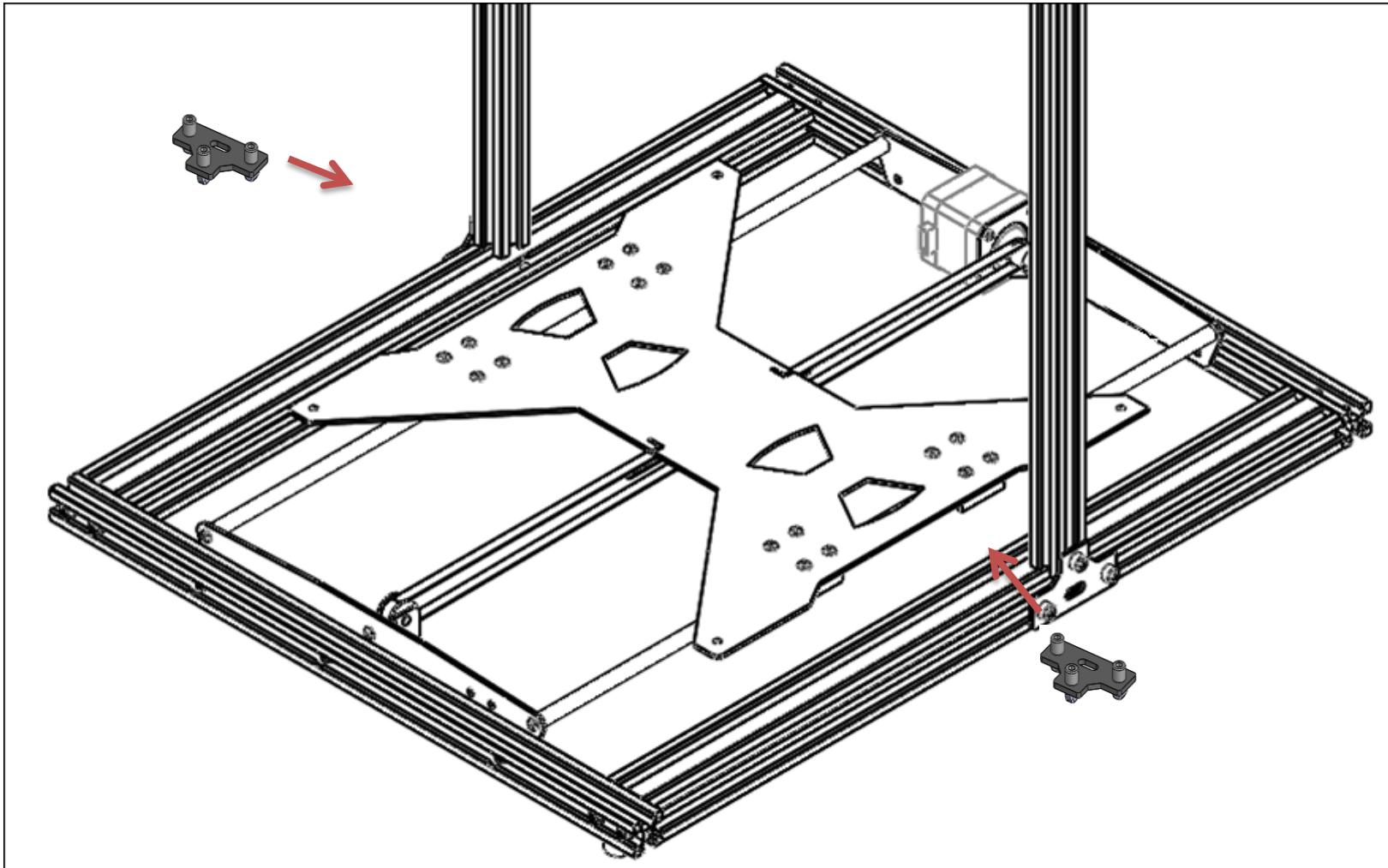
Assemble Framework: Z-axis

A3

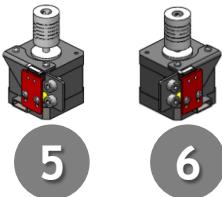


Assemble Corner code

A1

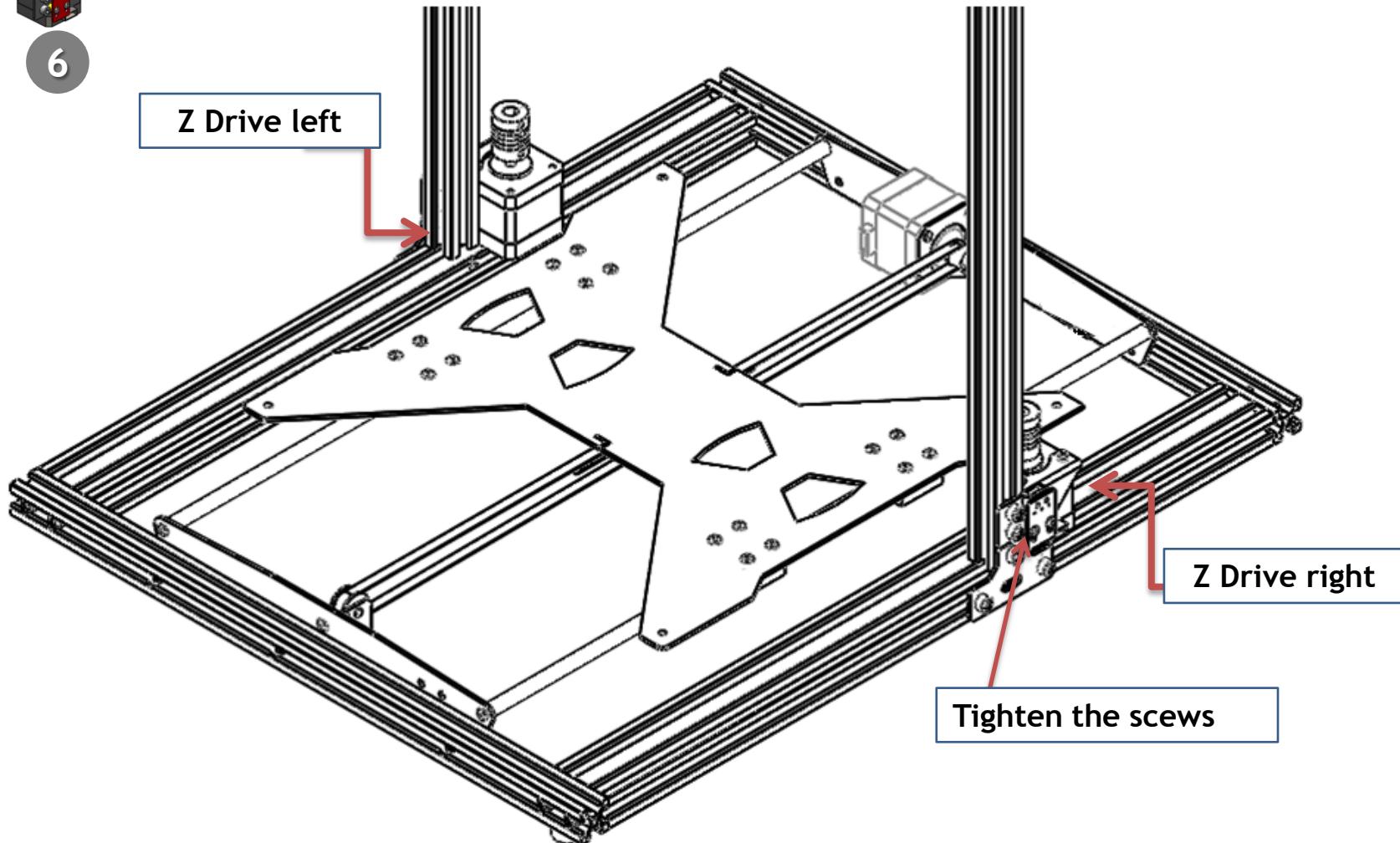


Install Z-axis driver mechanism

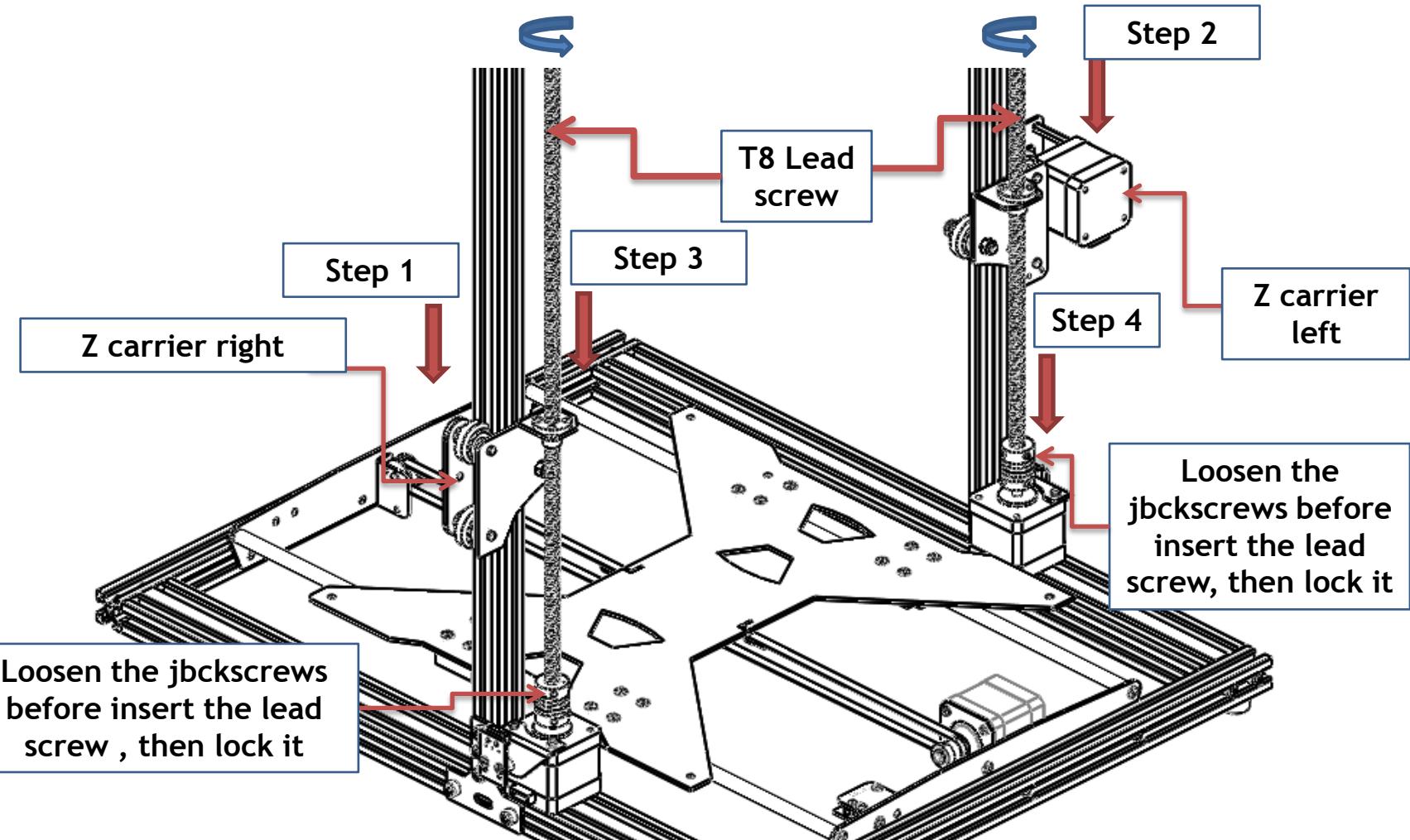


5

6

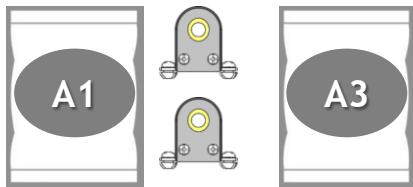


Install Z-axis carriers and lead screws

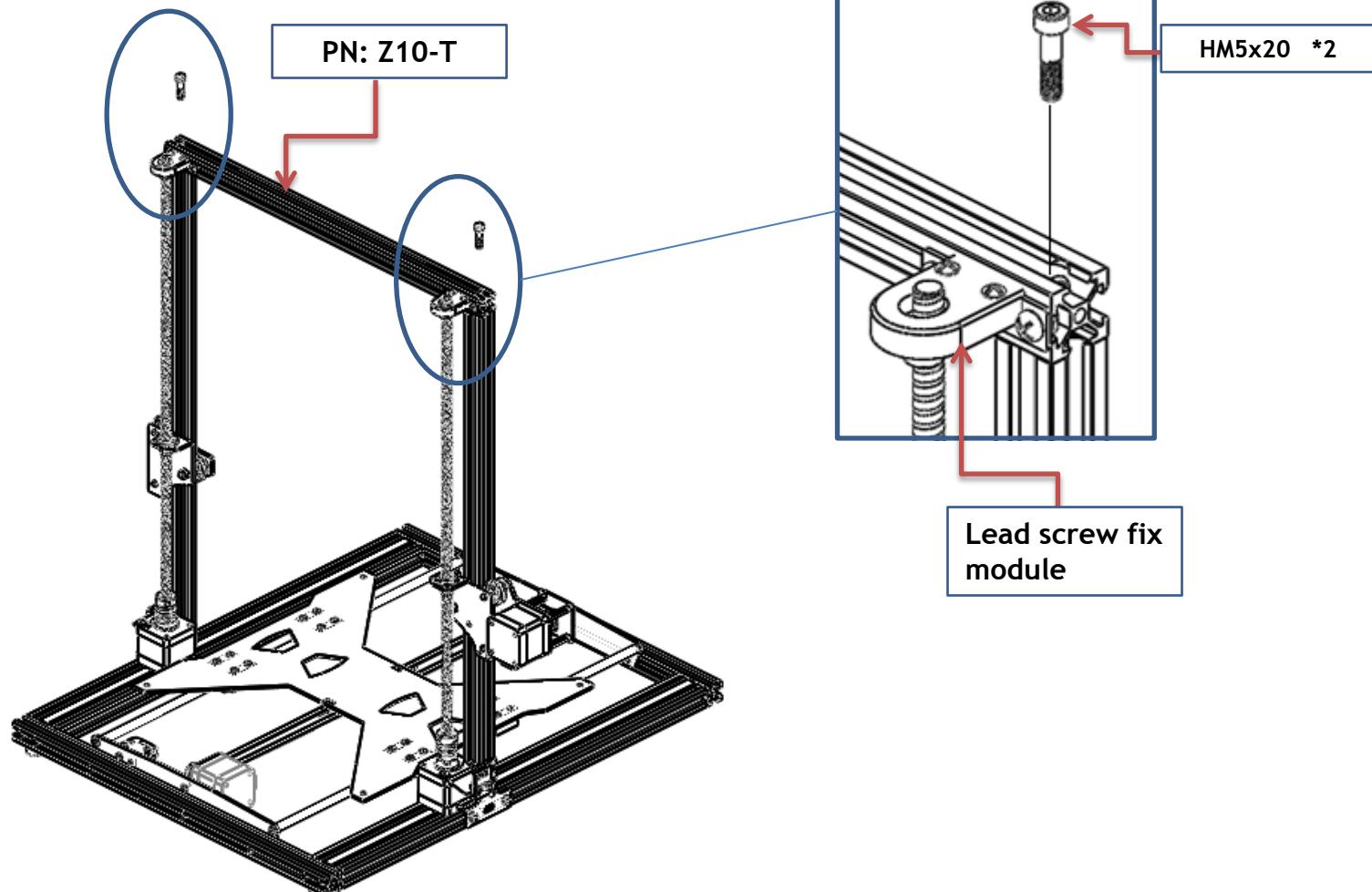


Note: After install Z carriers, rotate the eccentric columns to tighten the carriers, and make sure them can move smoothly on the profile rail.

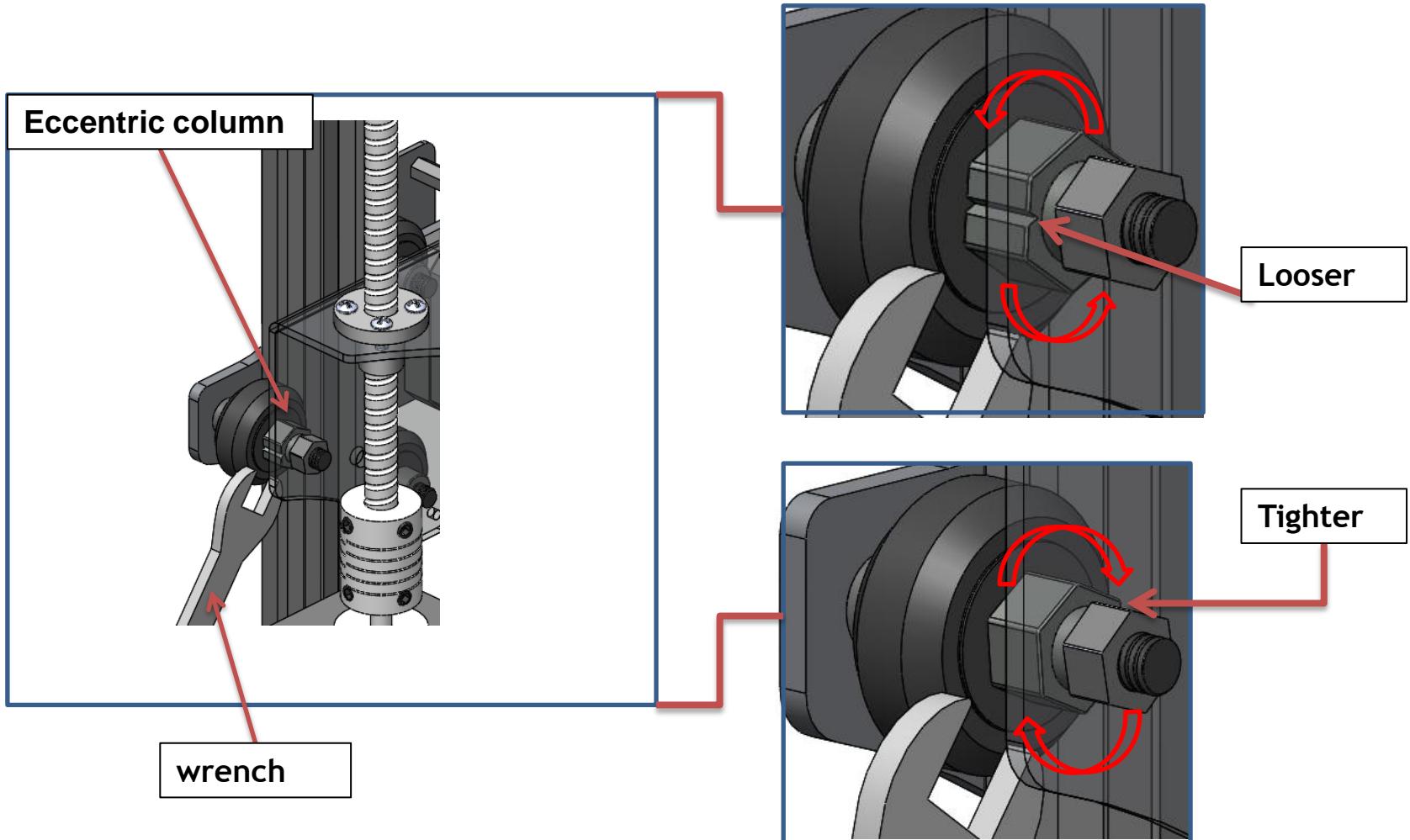
Install framework: Top



Note: Install the Z lead screw fix modules on the top Frame first, and then install the ASM to the printer.



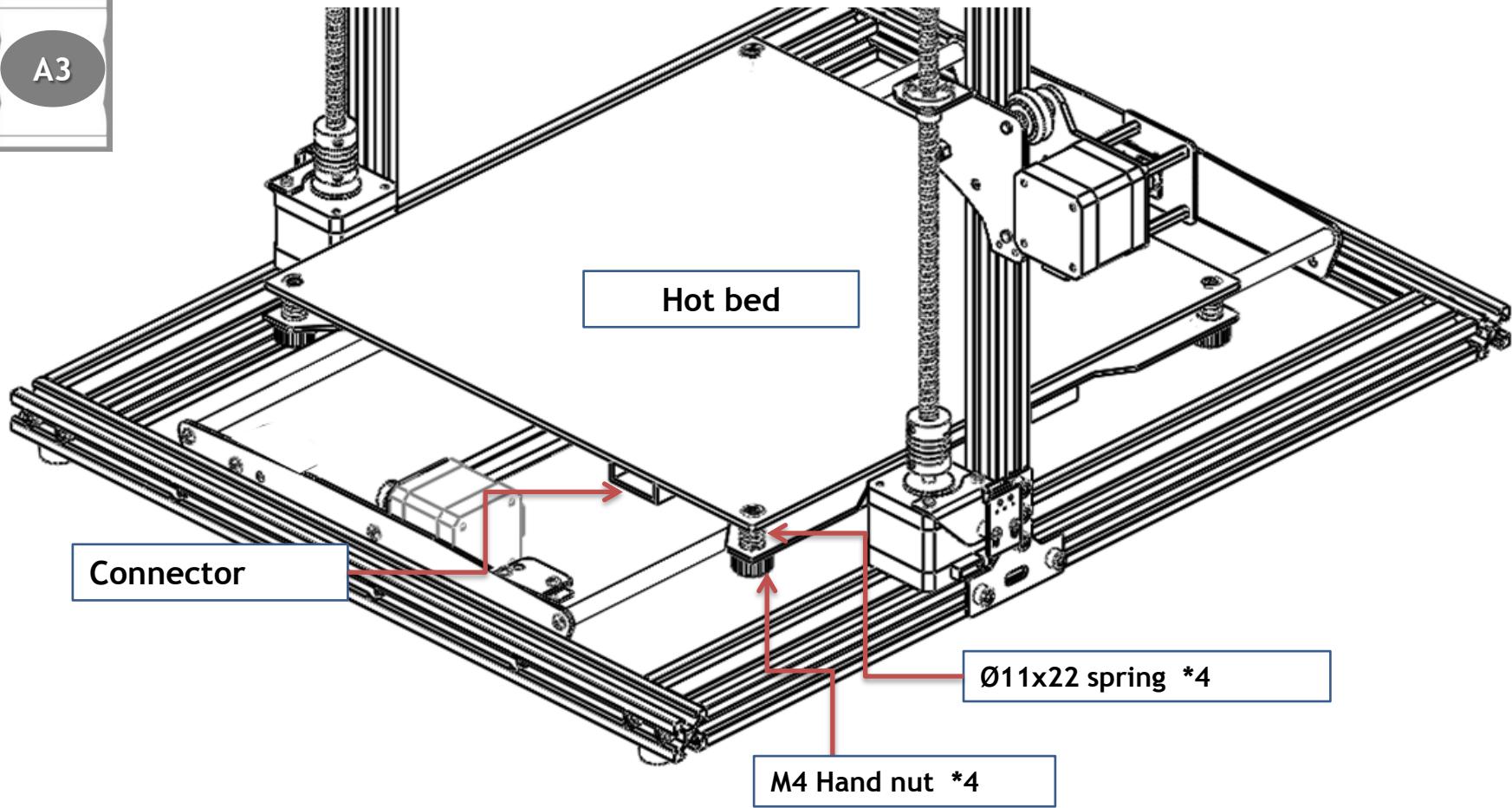
Adjust the Eccentric column



1. Before install Z carriers, rotate the eccentric column to loosest postion.
2. Adjust the **Eccentric column** to let the wheels hold the rail well.

Install hot bed

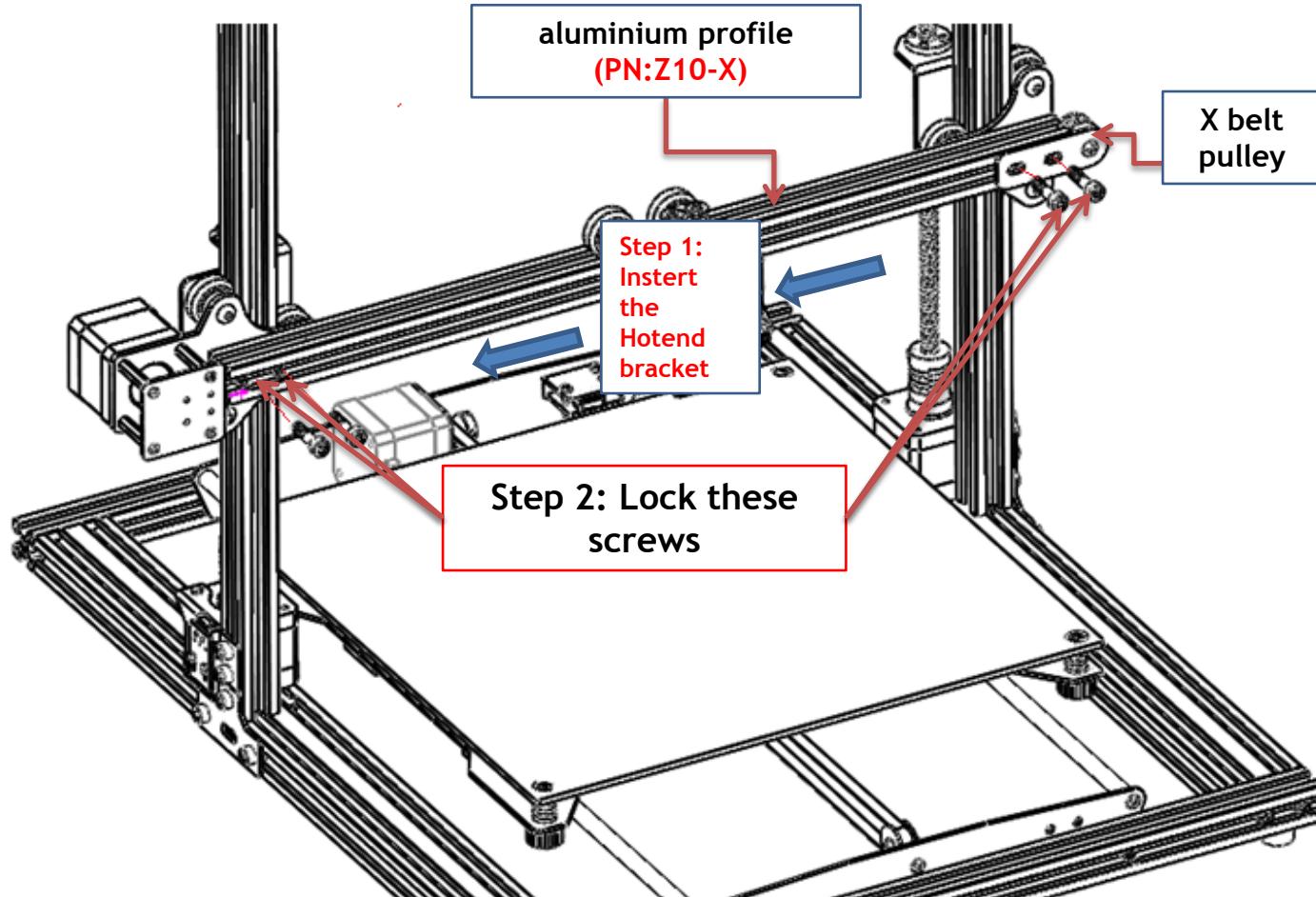
A3



We recommend that you paste the hot bed sticker on the hot bed after the machine has been debugged, but not in this step.

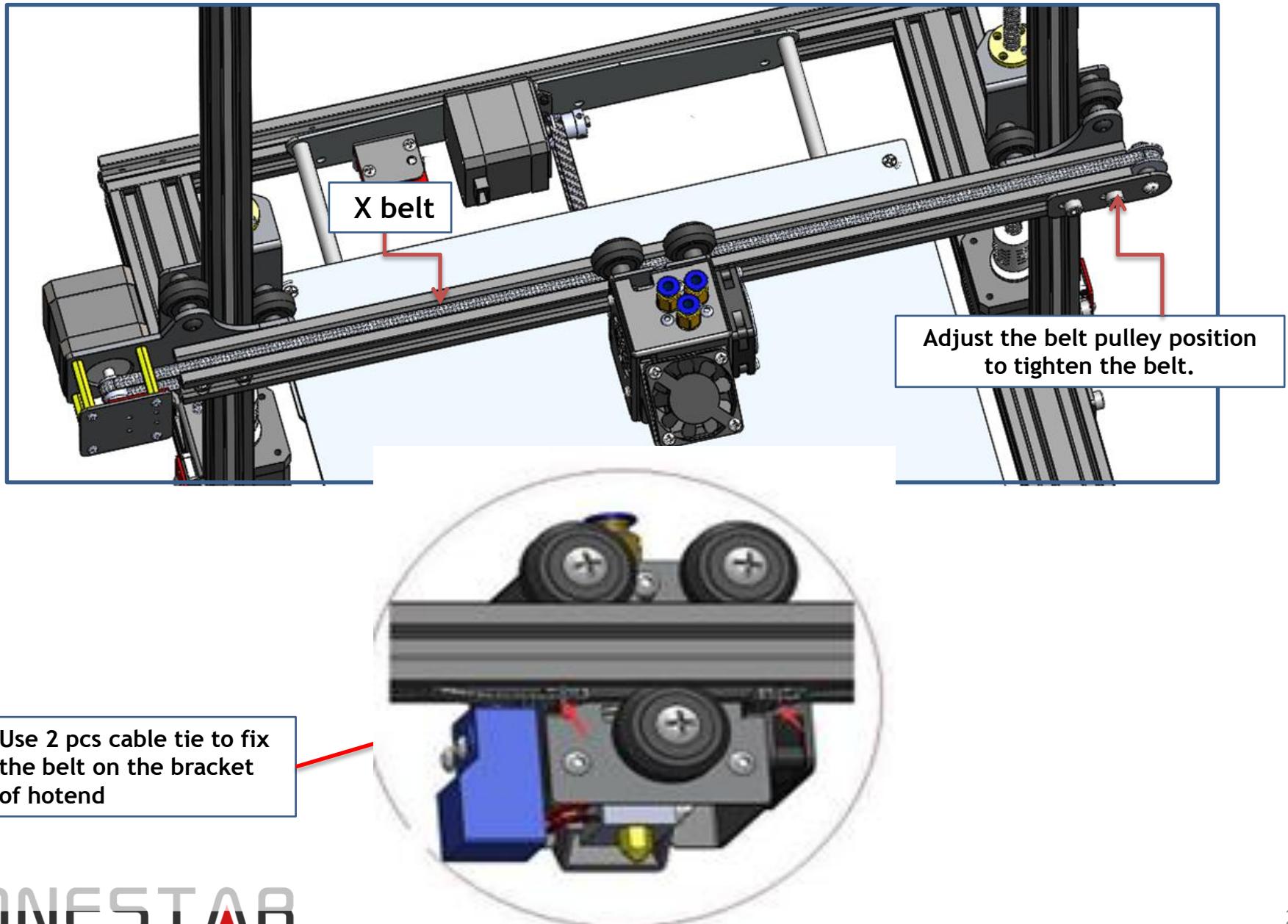
Install X-axis rail

A3

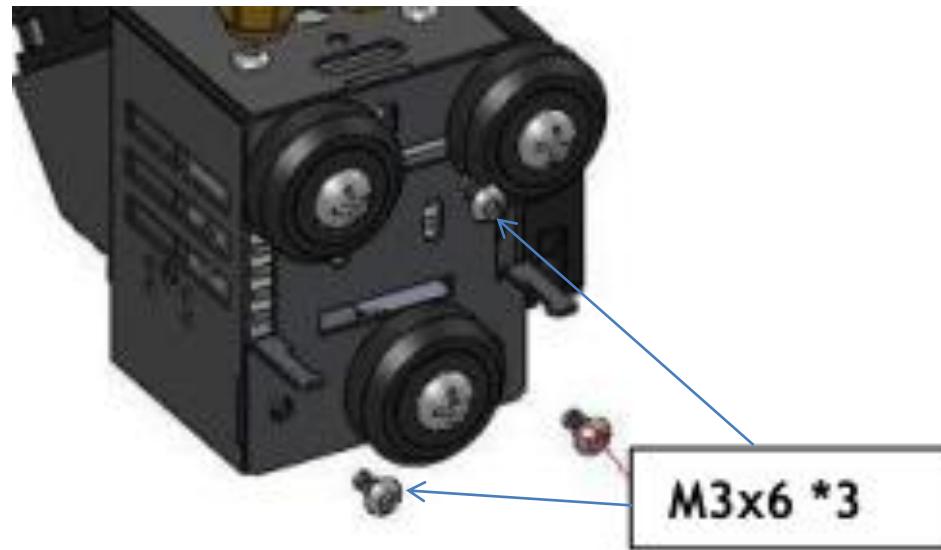


NOTE: Don't install the print head in this step.

Install belt of X-axis

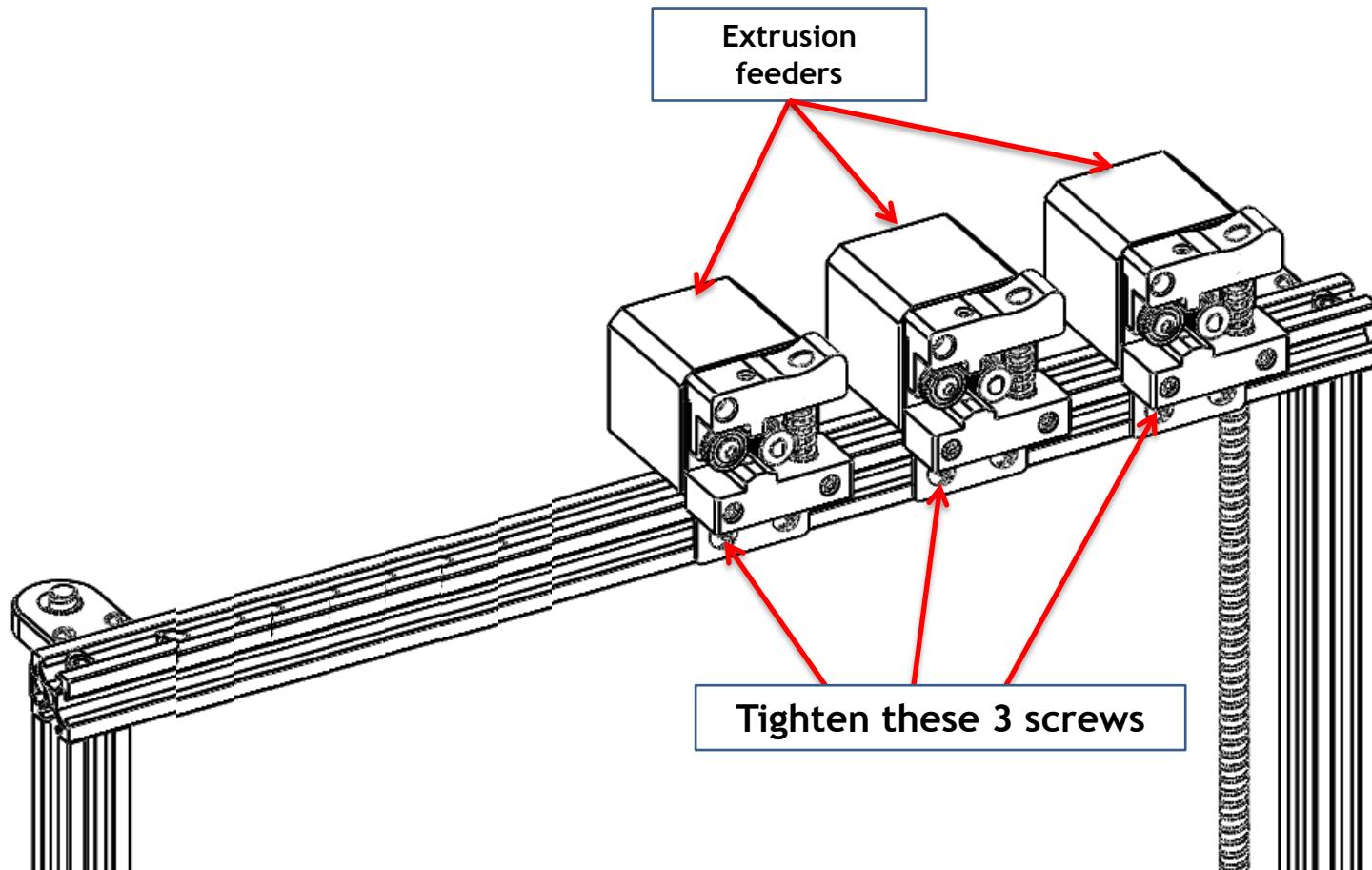


Install print head to the hot end bracket

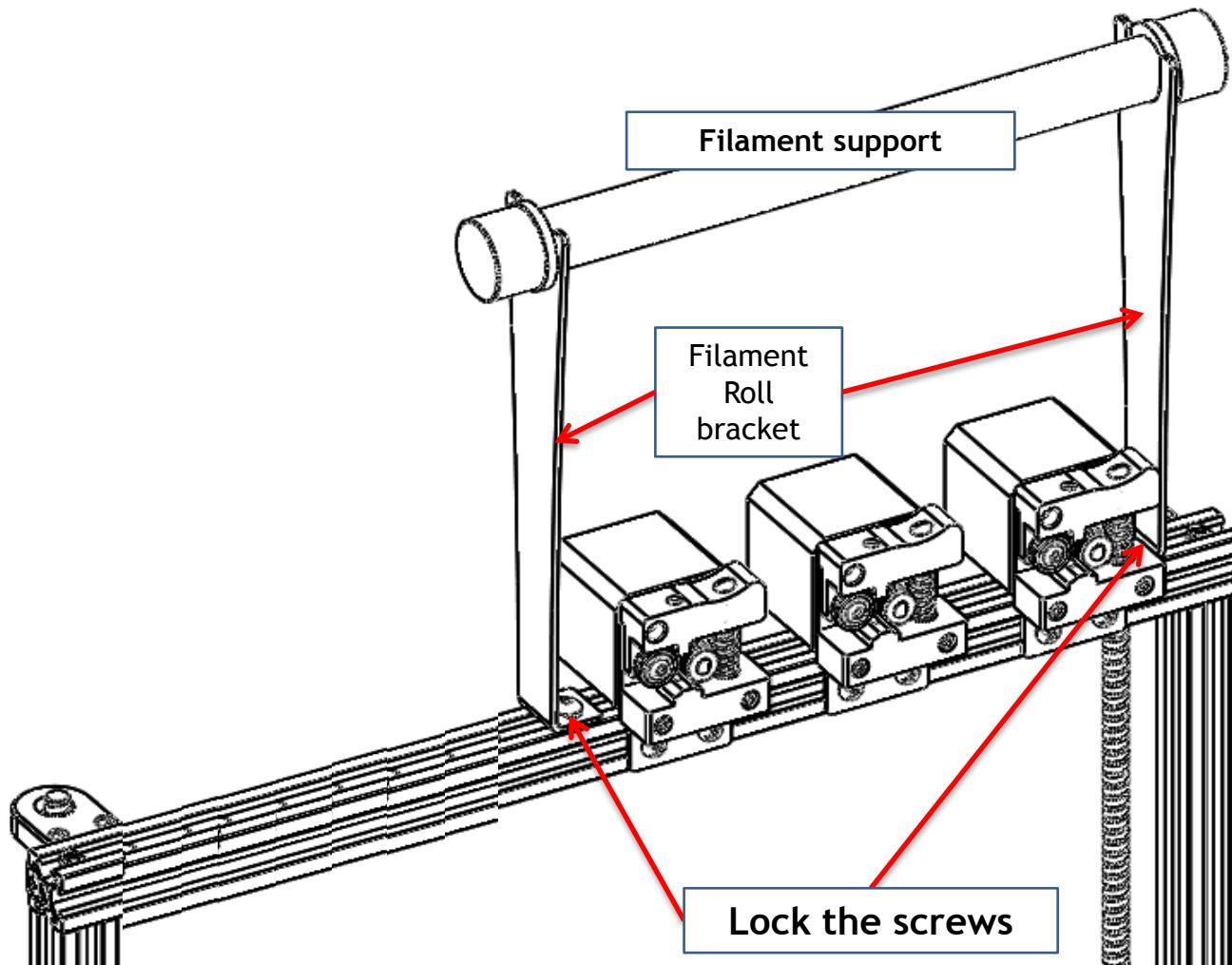


NOTE:Don't lock the screws too tighten!

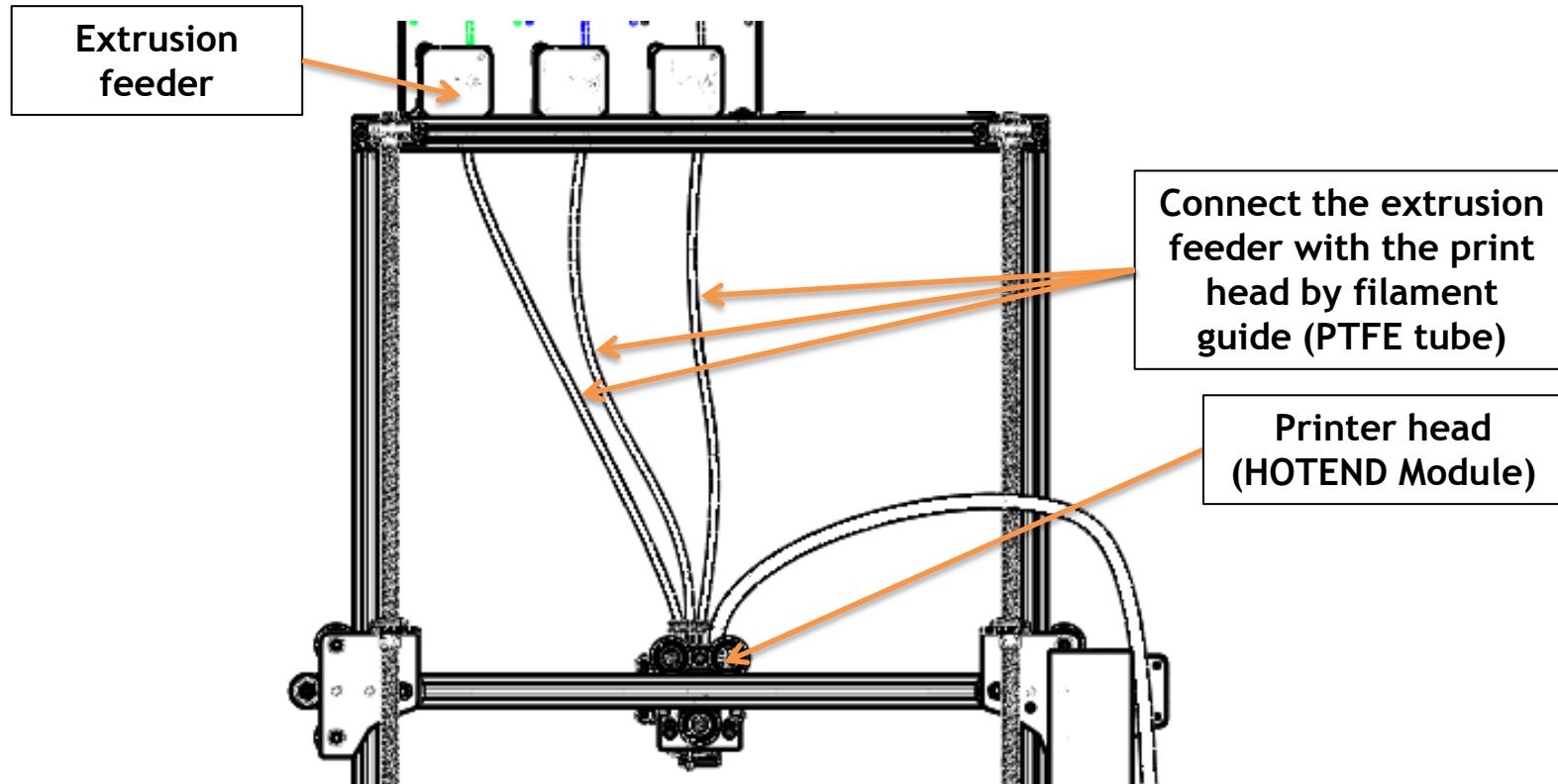
Install Extrusion feeders



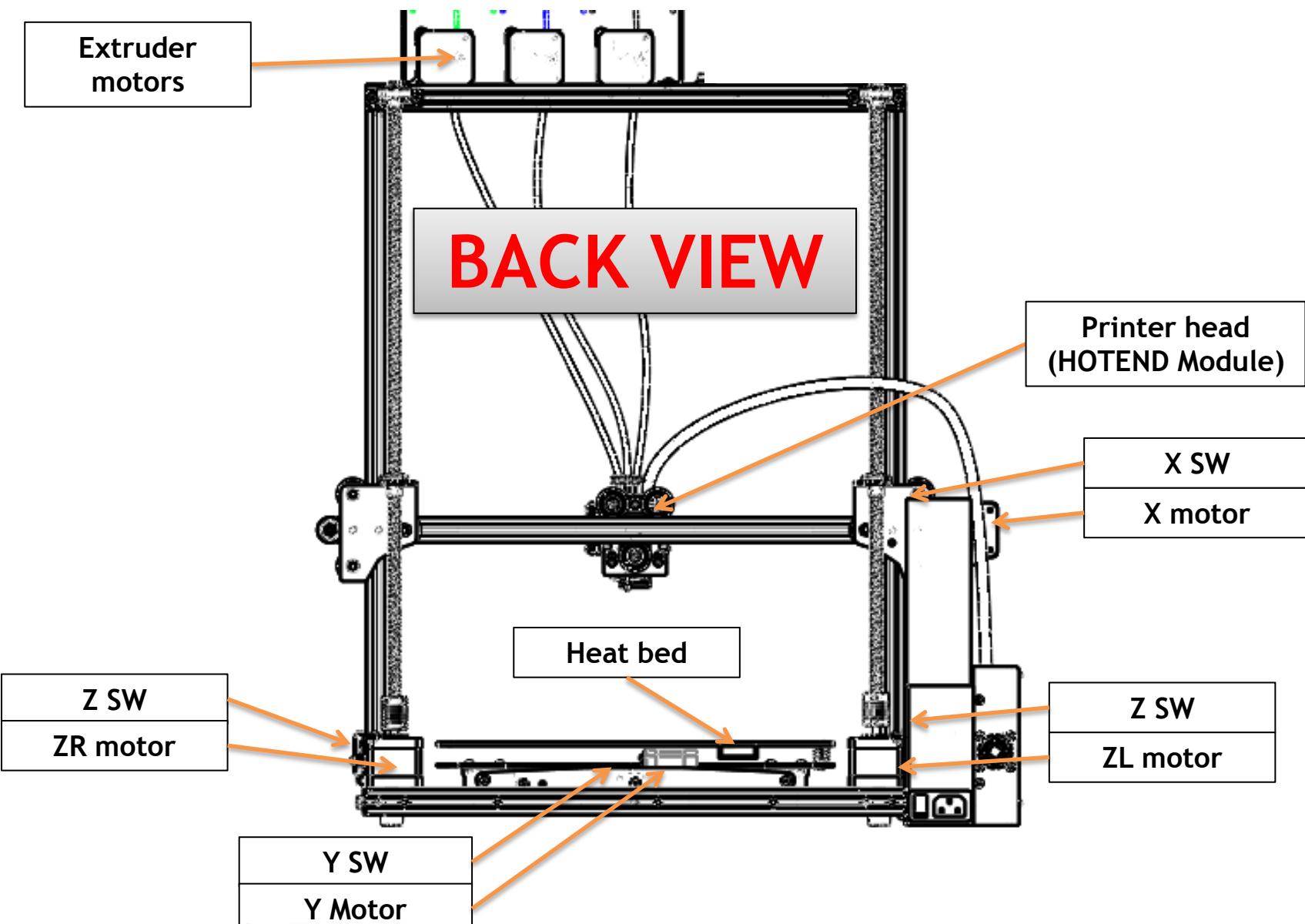
Install Filament Roll bracket



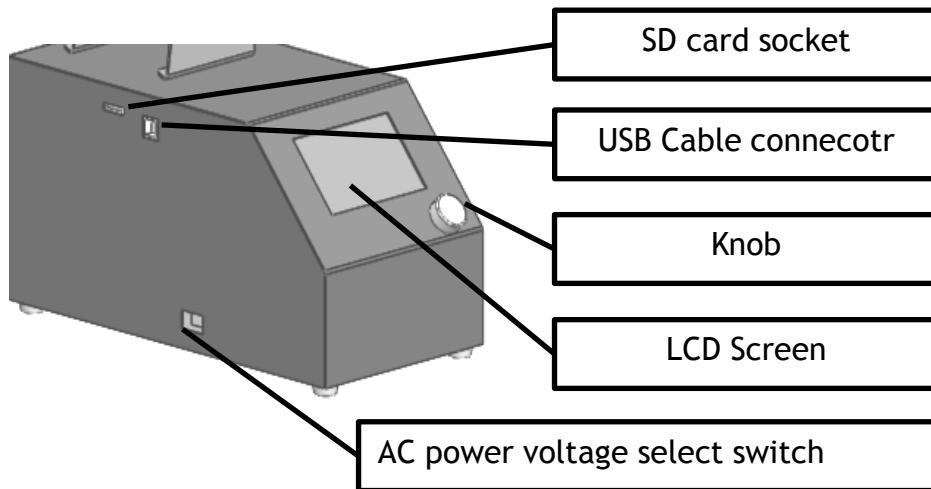
Install filament guide



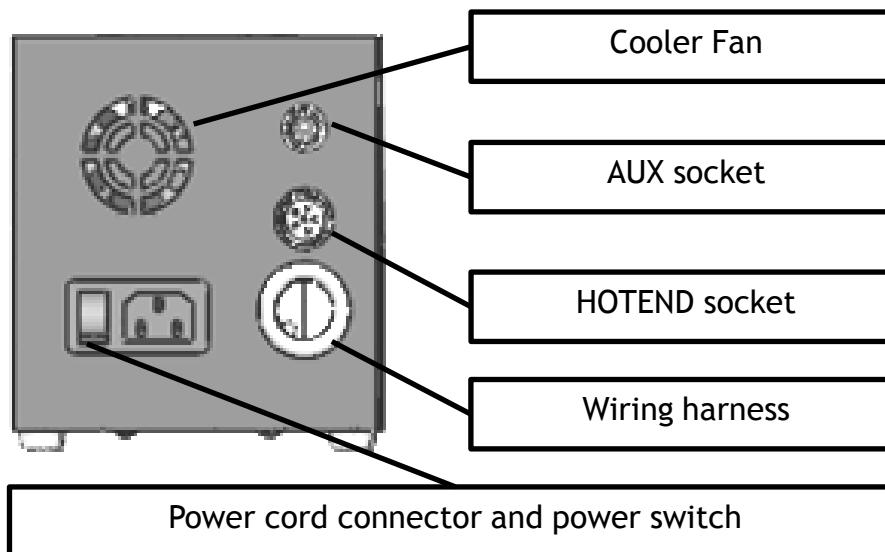
About Electronic Components



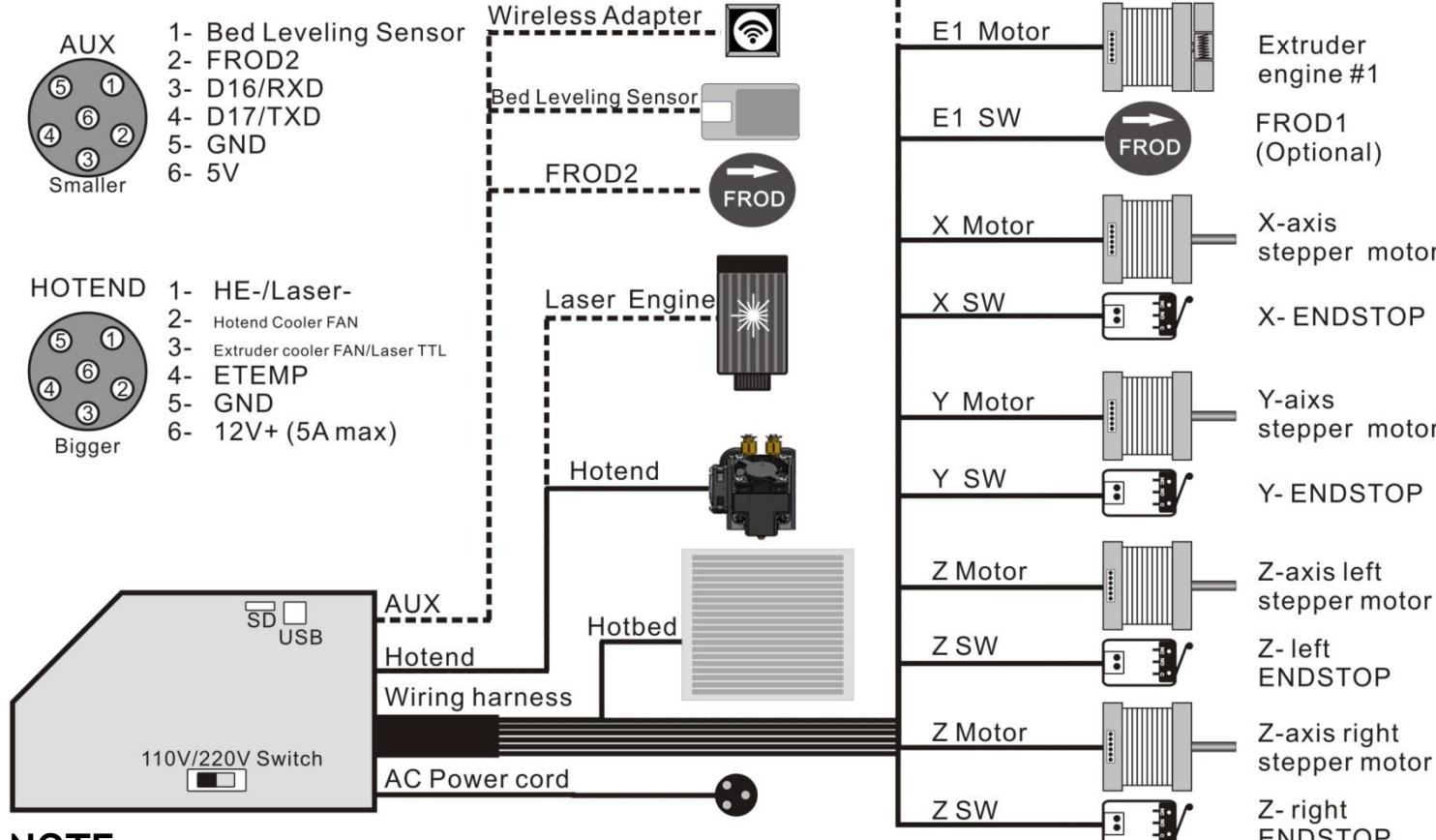
Wiring: about control box



1. Set AC power voltage select switch according to your city power voltage.
2. Take down 2 PCS PM3x6 screws from the control box first, and then install filament roll dock.



Wiring Diagram

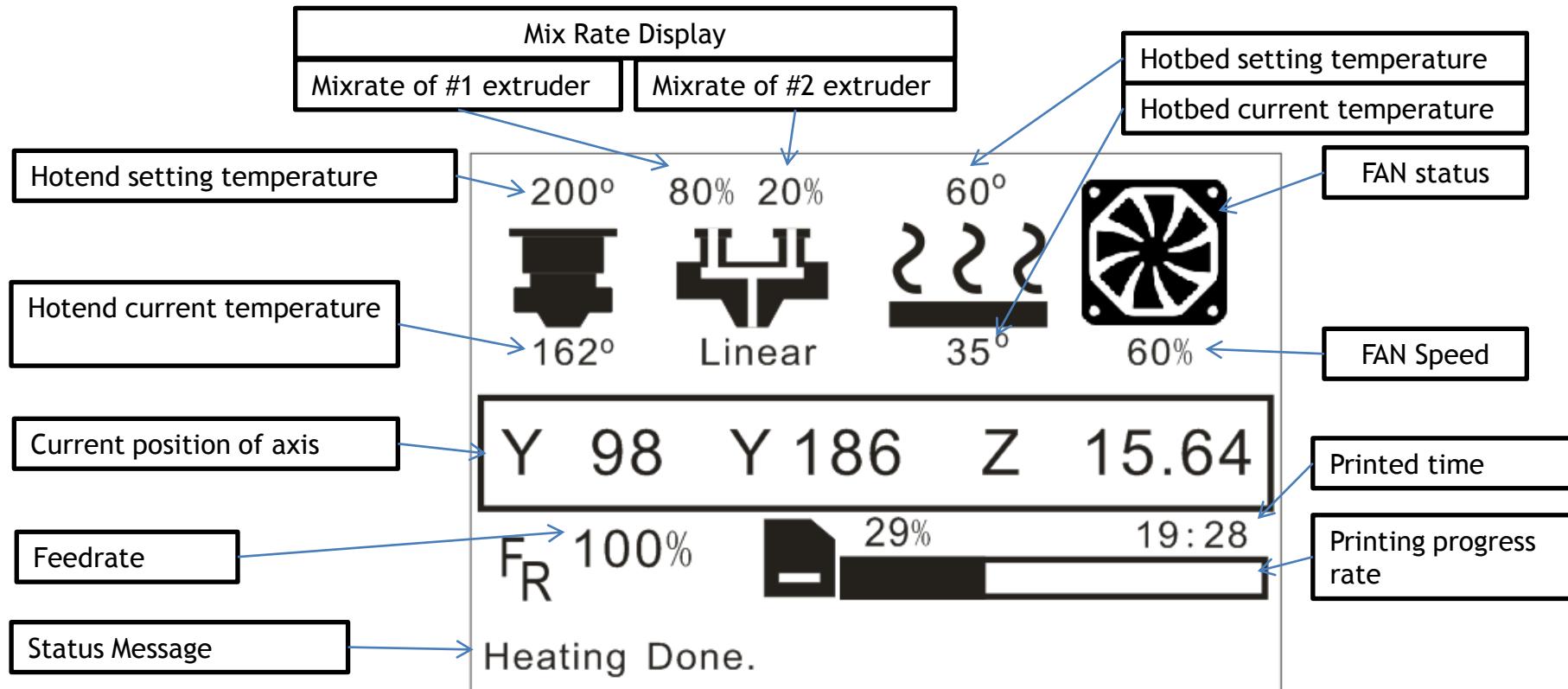


NOTE:

1. Laser, FROD modules are optional.
2. Laser engine and hotend can't be connected at the same time.
3. In order to apply the optional features, you need to purchase some device and upgrade firmware.

LCD Menu and Operation

Knob operation: <**Clockwise rotation**>: Next Item / Value +. <**Counterclockwise rotation**>: Previous Item / Value -. <**Push**>: Enter / Execute.



For details on the LCD menu, please refer to the file "**LCD Menu Description.pdf**" in the SD card.

Prepare to print - level the hotbed

1

Clean nozzle: make sure there aren't any filament at the end of nozzle, if not, remove it by a diagonal pliers.

2

Choose “Prepare”>> “Auto Home”>>, wait the hotend go to the orig position.

3

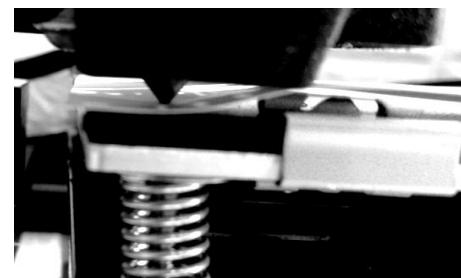
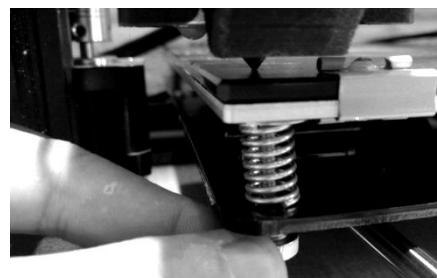
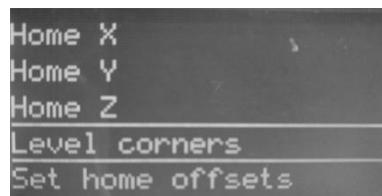
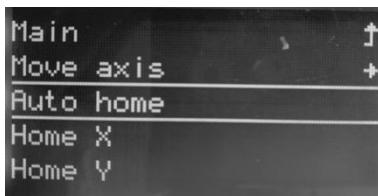
Watch the nozzle and make sure the nozzle is higher than the bed, otherwise tighten the hand nuts under the bed to pull down the hotbed or loosen these nuts to move up the bed.

4

Choose “Prepare”>> “Level Corners”>>, the nozzle will go to the first corner, adjust the hand nuts under the hotbed, let the nozzle almost touch the hotbed. In order to get a proper distance, you can put a A4 paper on the hotbed, and when the distance between the nozzle and hotbed can only insert a paper, it will be perfect.

5

Choose “next corner”, and adjust again. Repeat this step again and again, until all of the four corner at the same height.



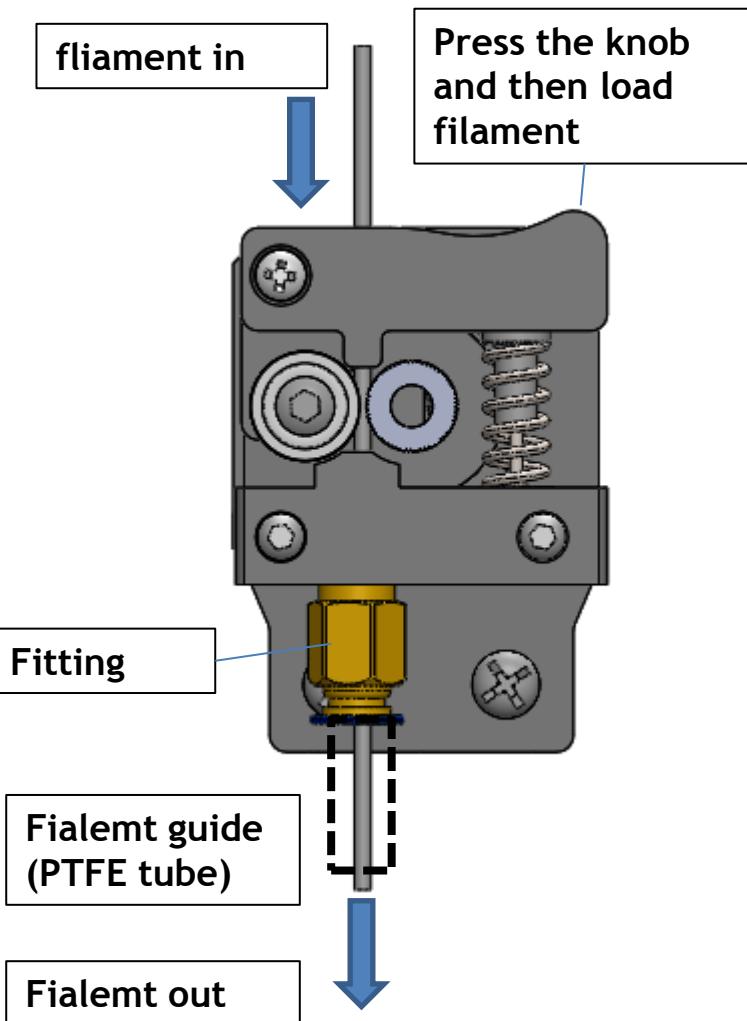
Home all axis

start “level corners” wizard

Adjust bed height

put a paper on the bed to measure the height

How to Load filament



Step 1: **Heating the extruder first**, you can operat the LCD screen “Menu>Prepare>PreHeat PLA”, and then wait the temperature to over 170 degree.

Step 2: Use clippers to remove the front of the filament.

Step 3: Straighten the front of filament.

Step 4: Press the knob and load filament, please observe whether the fialment enter the PTFE tube. If the filament colg in the fitting, please romve it first and let the filament out, and then install it again.

Step 5: Continue to feed filament until it is enter to the Nozzle, the filament maybe clog when it enter the hotend, please remove the fitting on the hotend and make sure the filament reached to the nozzle, and then install the fitting again.

Prepare to print - Load Filament

1

Preheat nozzle: Choose “Prepare”>> “Preheat PLA”, then nozzle and hotbed will be heated.
Waiting nozzle temperature reached to setting.

2

If there is filament in the hotend, do this step, otherwise skip this step.
Choose “Prepare”>> “Move axis”>>“Extruder”>>“Move 1mm”>>“extruder: ****mm”, then
Clockwise rotate the knob slowly, until you can see the filament flow from the nozzle.

3

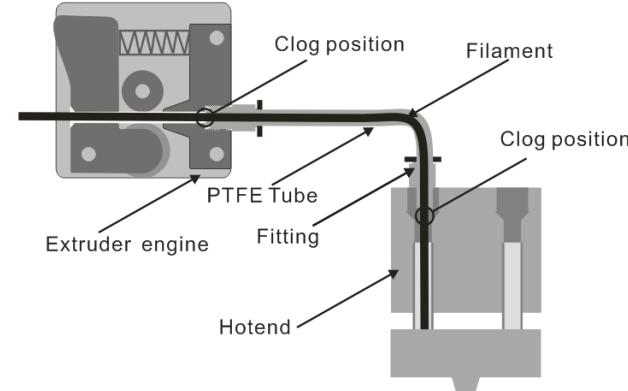
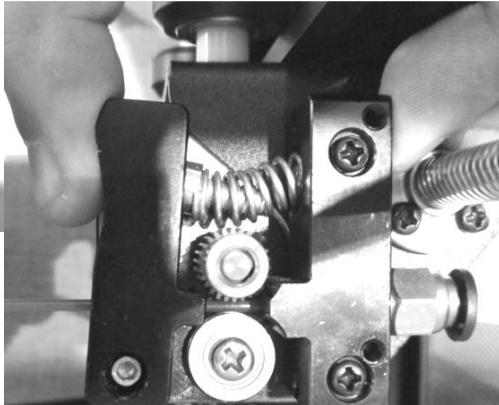
If there is filament in the hotend, do this step, otherwise skip this step.
Press the handle on the extrude feeder and pull out the filament.

4

Press the handle on the extrude feeder and insert filament, make sure the filament has been
inserted to the hotend.

5

Choose “Prepare”>> “Move axis”>>“Extruder”>>“Move 1mm”>>“extruder: ****mm”, then
Clockwise rotate the knob slowly, until you can see the filament flow from the nozzle.



Use a diagonal pliers
to cut off the head of
filament

Press the handle and
insert filament into
the extruder engine

When loading filament, make sure it has entered the
hotend, if it clog in extruder or hotend, try to remove
the fittings and load the filament again.

Print a test 3D object (Print from SD card)

1

Insert the SD card to the SD card socket on the control box, and then power on the control box.

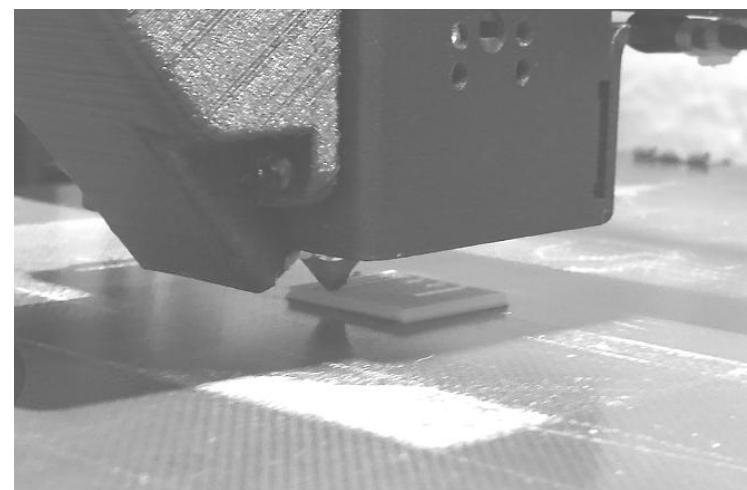
NOTE: the touchpad of Micro SD card pointing is on the top.

2

Choose “Print from SD”>> Choose “Test_gcode\Single Color\xyz_cube.gcode”, push the knob to start printing.

3

Wait the printer to finish heating and start to print, watch the distance from nozzle to bed, **double click the knob of LCD menu to adjust the z height if the distance is not perfect**, let the filament can stick on the hotbed well.



Insert SD card to control box and then start to print

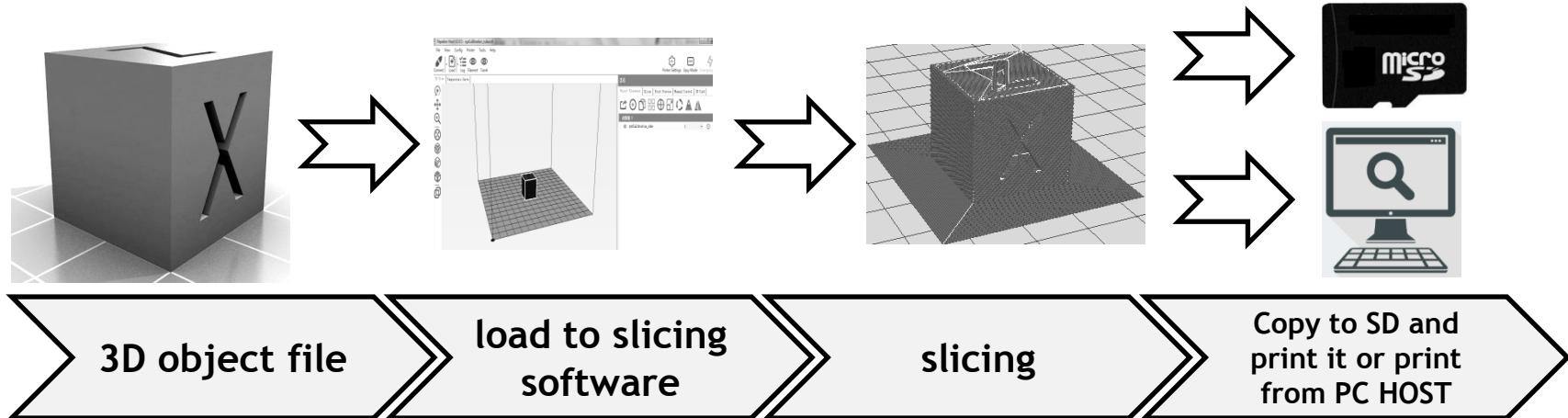
Adjust z offset if the filament can't stick to bed well

Wait for printing finish!

Slicing, control and printing from PC HOST

1

Before building a 3d object by using this 3D printer, you need to use a software to convert the 3D models (stl, obj, etc., depending on the type of slicing software) into a machine-recognizable file - gcode file. This process is called “slicing”.



2

*Our recommended slicing and HOST software is **repetier-host**, which is a free software, you can also use any other software to slicing the 3d model as long as it can support rereprap protocol, for example: Cura, slic3r, KISSlicer, prонterface, simplify3d etc.*

3

*For more about slicing, please refer to the document in the SD card. You can also download the latest document from our cloud disk.
If you want to control the printer from PC HOST, we store the guide in SD card, please find it out and read it.*

How to apply the mixing color feature

Manually extrude mixing color filament (extruding from both of extruders at the same time):

Step 1: Refer to the “Prepare to print - Load Filament” to load filament to both of extruder engine, and make sure the filament has been insert to hotend already.

Step 2: When nozzle temperature reached to the settings, choose “Prepare”>>“Move axis” >> “Extruder”>>“E1 percent”>> change this value, this value means extrusion percent of extruder 1.

Step 3: Choose “Move 10 mm”>>Add this value, watch the extruder engine, you will both of the filament will enter to the hotend, and after extrude about 50mm, the filament will flow from the nozzle and color will be different according to the mixed ratio of the setting.

* At the beginning, the color of filament maybe comes from the remaining in the nozzle.

Manul mixing (Mixing two color filament when printing from SD card):

Step 1: Start to print a monochrome object from SD card.

Step 2: After the printing start, choose “tune”>>“E1 percent” >> change this value. The printer will automatically mix the 2nd extruder's filament according to the setting.

PS: Mixing result is affected by many factors such as object shape, path planning, filament type and so on.

Auto mixing (Converter a monochromatic object to a multi-color object):

Using this function, you can convert a monochrome object into a mixing-color object.

Step 1: Start to print a monochrome object from SD card.

Step 2: After the printing start, choose “tune”>>“Auto Mix Mode” >> change this value to 1 or 2. If choosing “1”, the printer will automatically mix the 2nd extruder's filament, from less to more, according to the printing progress. If choosing “2”, the printer will randomly mix the 2nd extruder's filament to hotend in the printing process.

PS: Mixing result is affected by many factors such as object shape, path planning, filament type and so on.

You can also set the printer to print two colors, mixing colors and use up to 16 virtual extruders when slicing. For more about mixing color feature, please refer to the document in the SD card, file name: “**Tips of mixing color feature**”. You can also download the latest document from our cloud disk.

1

2

3

4

Upgrade more feature

1 FROD:

Filament run out detector is a sensor be used to detect the filament roll use up, Z5 control box can connect one FROD. About how to connect this sensor, please refer to the wiring diagam.

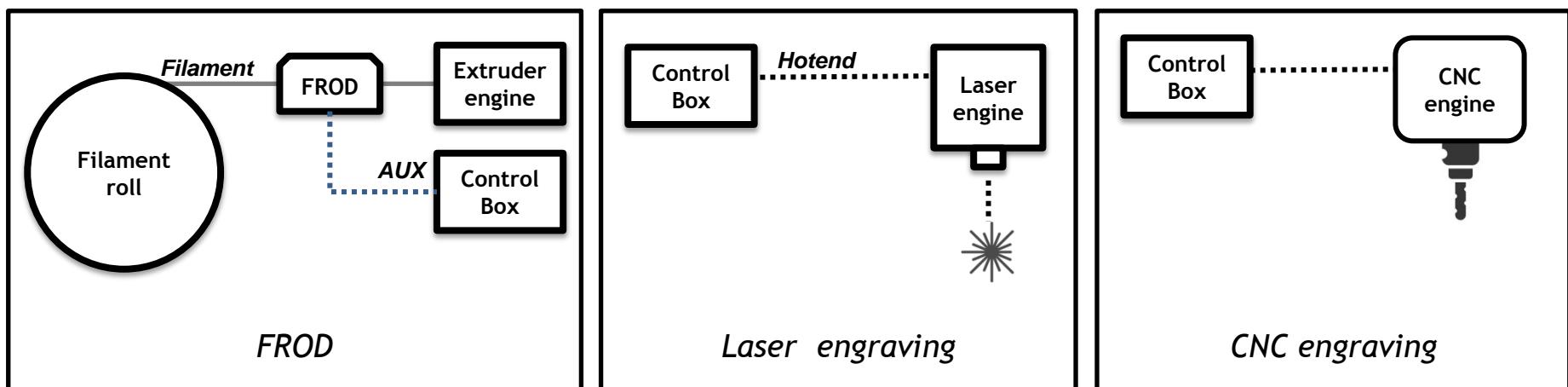
2 Laser engraving:

Only need to install a laser engine on the print head, you can turn this machine into a simple laser engraving machine.

3 CNC engraving:

You can replace the print head with a CNC engraving kit, turn this machine into a simple CNC engraving machine.

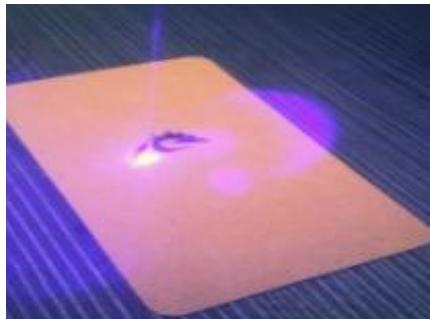
*If you are interesting in these features, welcome to vist our **online store** to purcase.*



Improve: Upgrade a laser engraving kit



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About ZONESTAR

ZONESTAR Innovation Technology Co., Ltd. is a high-tech manufacturer specializing in the development and production of 3D printers.

Since began to develop and manufacture 3D printers in 2013, we have successively introduced several series of products such as P802, D805, Z5, Z6, Z8, Z9, and Z10, which are popular with customers all over the world. Now, ZONESTAR has Gradually grew to be a leader in the category of DIY 3D printers.

At the same time, we are committed to applying 3D printing technology to a wider range of fields and have successfully developed 3D printers for use in food, advertising, ceramics, and other fields.

ZONESTAR has always regarded ***Innovation***, ***Quality*** and ***Service*** as our core value of the company and strived to provide customers with high-quality and high-tech products and excellent services.



www.zonestar3d.com