Model: Z9V5Pro(-MK4)

Installation & User Guide

The newest documents download link: https://doc.zonestar3d.com/10

Zonestar

!! 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.

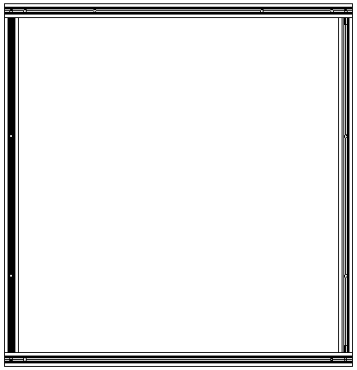
Please keep well-ventilated condition! May produce toxic gases when printer working.

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

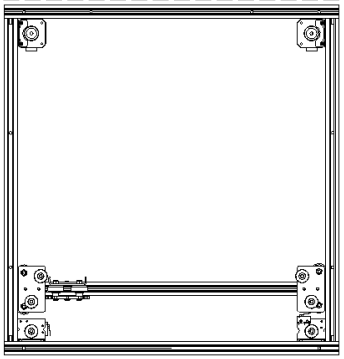
Must load filament to all channels of the mixing color hotend.

Zonestar

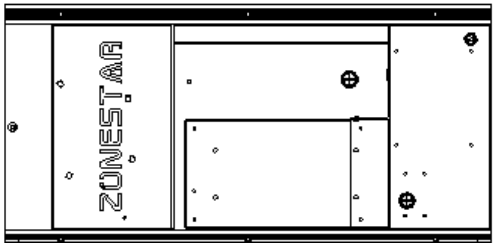
Parts



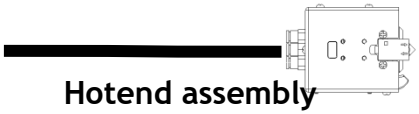
Bottom Assembly



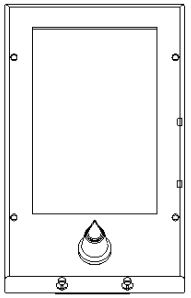
Top Assembly



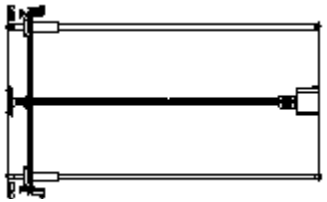
Controller Assembly



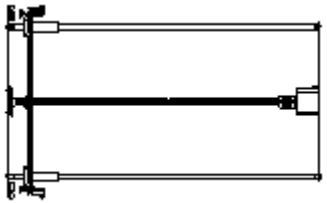
Hotend assembly



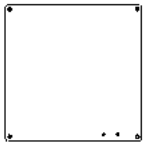
Control Panel



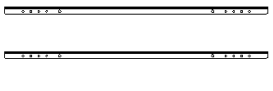
Z carrier Assembly
- Left



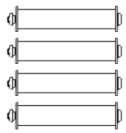
Z carrier Assembly
- Right



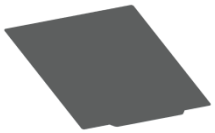
Hotbed



Hotbed
Bracket



Filament
Bracket

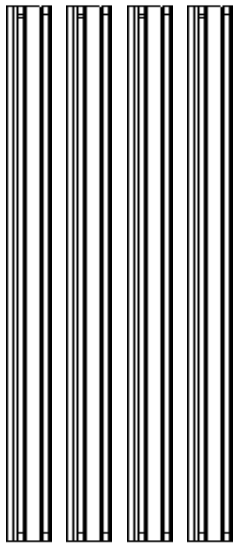


Magnetic hotbed
sticker(A-side)

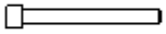
Hotbed screws
/nuts

Hotbed parts

Note: The B-side of Magnetic hotbed sticker has already pasted on hotbed.



Z-axis Profile



M4x36 4PCS

M5x22(M4x25*) 16PCS

M4x18 4PCS

Profiles cover

Bellows holder

Cable ties

Tools

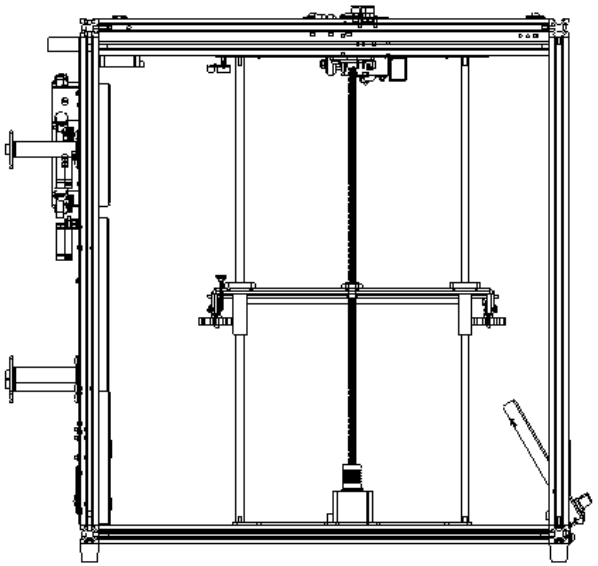
AC Power cord

USB Cable

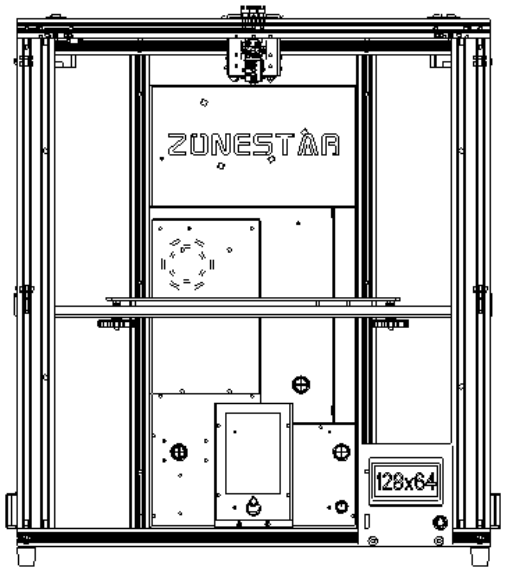
TF card

*: Some machine used M4x25 screws because the profles are different.

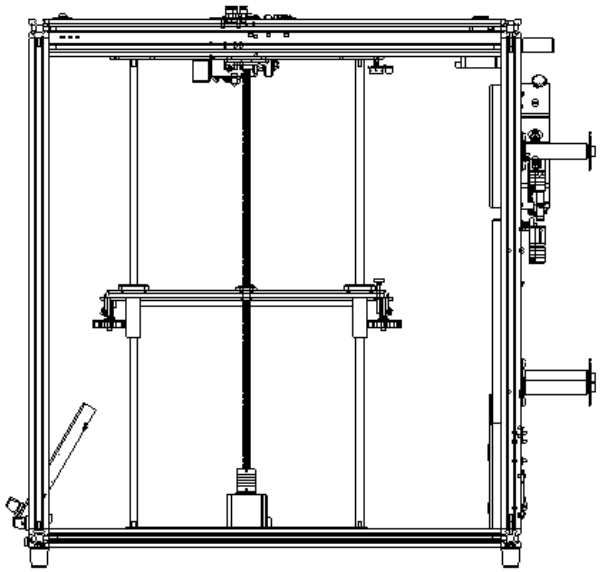
Machine View (after installed)



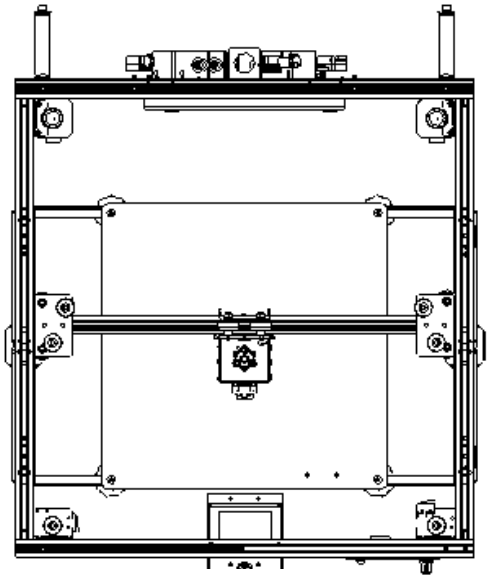
LEFT VIEW



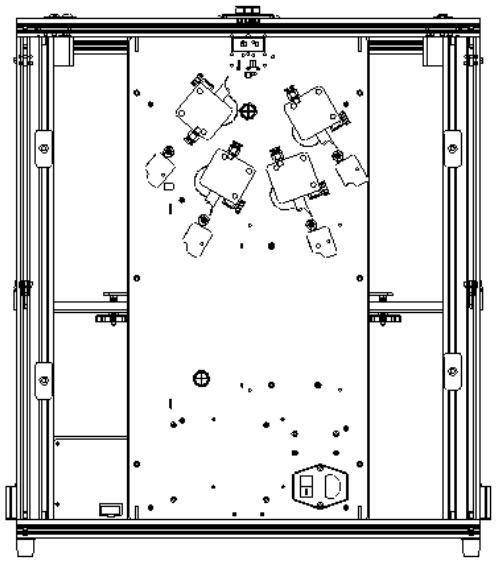
FRONT VIEW



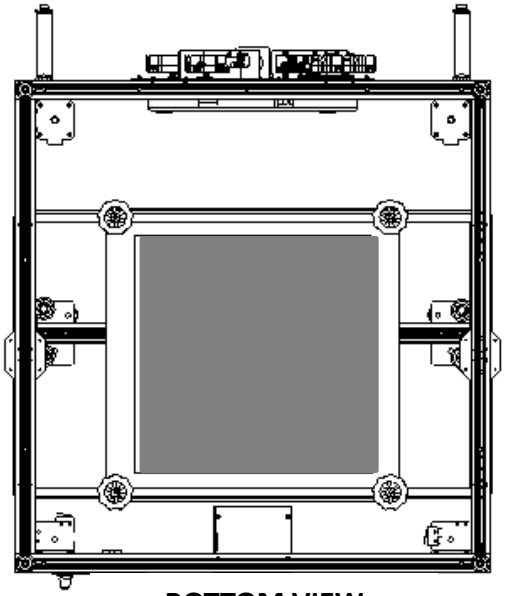
RIGHT VIEW



TOP VIEW



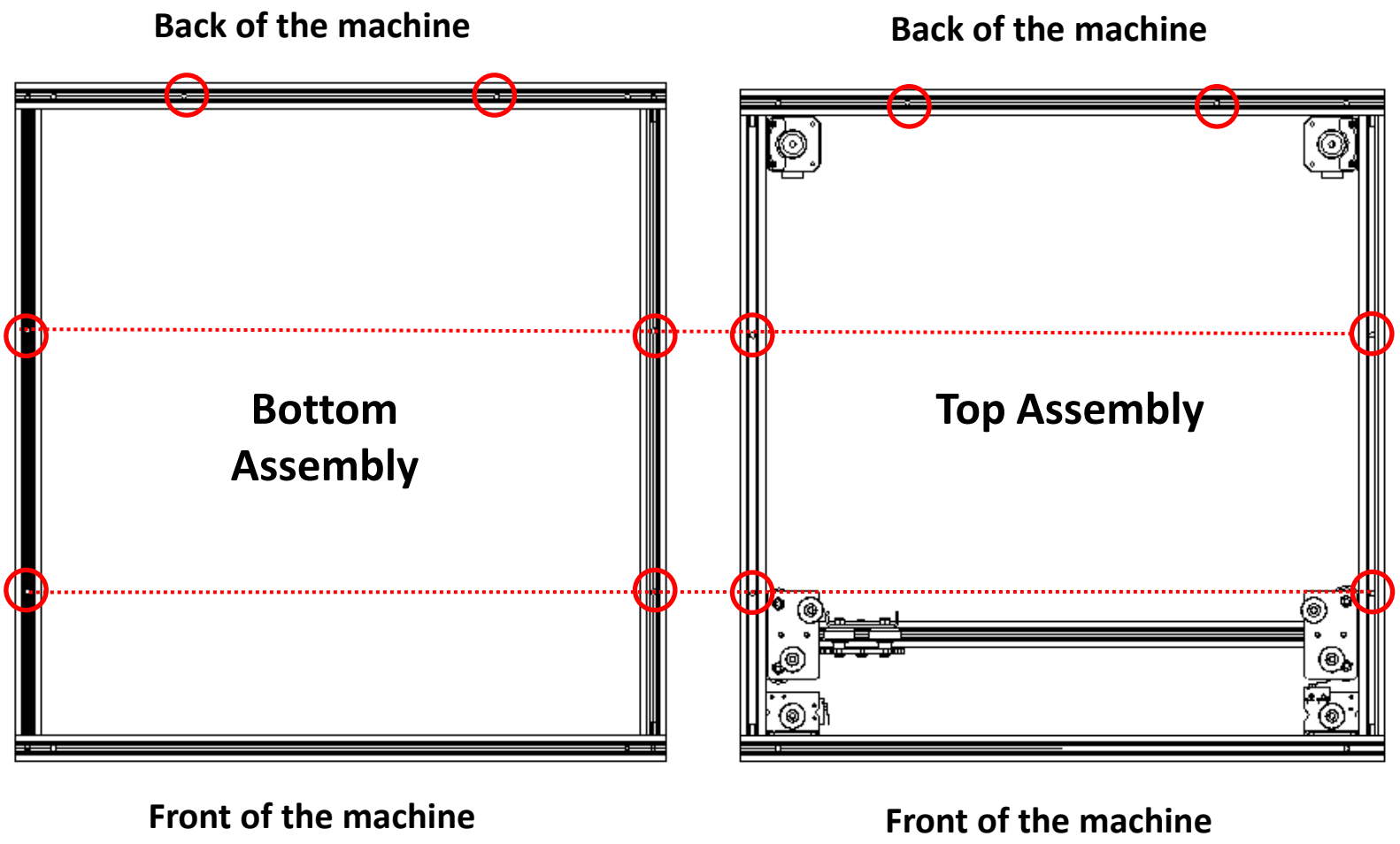
BACK VIEW



BOTTOM VIEW

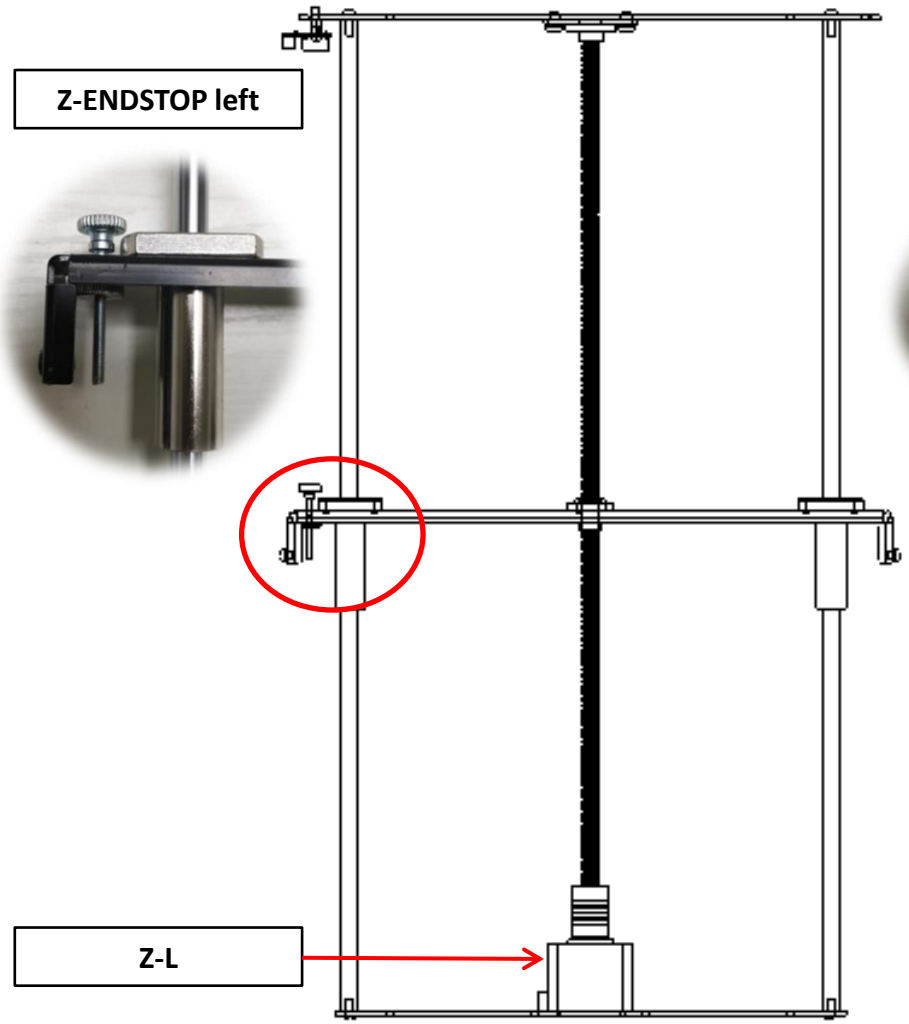
Zonestar

Direction of parts

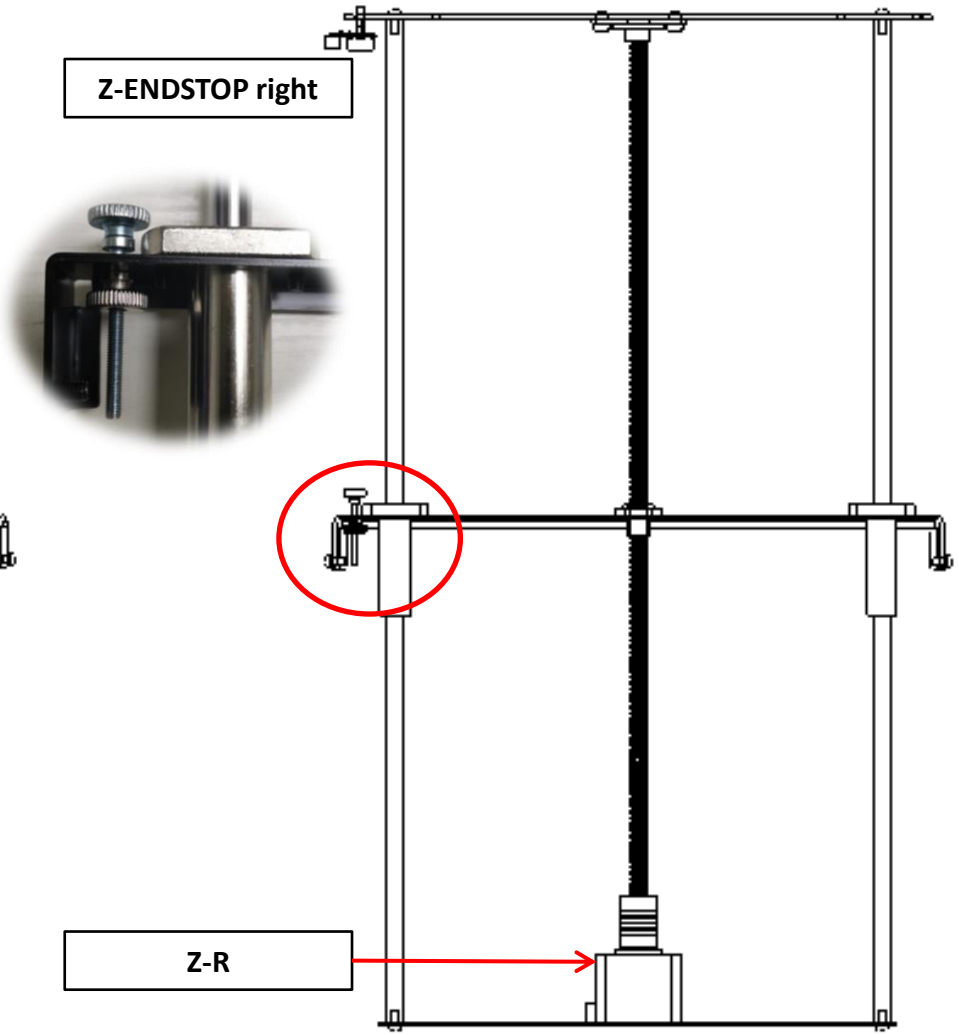


NOTE: Please pay attention to distinguish the **front** and **back** of the top and bottom assembly.

Direction of parts



Z carrier assembly - **Left**

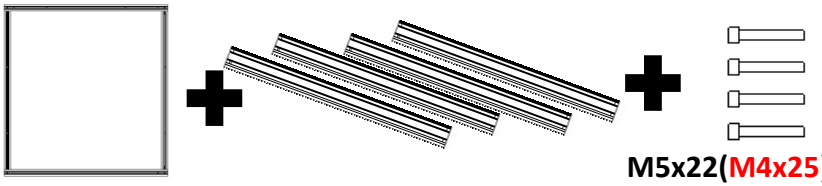


Z carrier assembly - **Right**

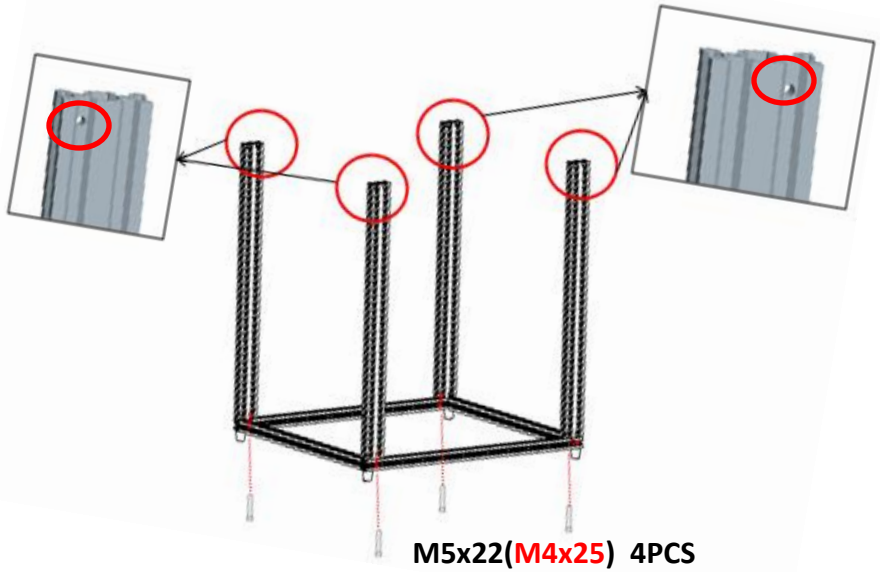
NOTE: Please pay attention to distinguish the **left** Z carrier assembly and the **right** Z carrier assembly.

Zonestar

Assemble

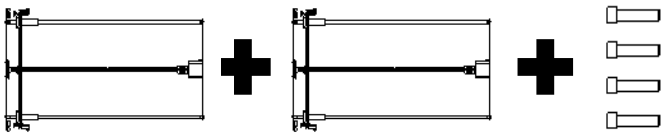


Bottom Assemly　　Z profiles (4x2040)　　M5x22(M4x25) 4PCS

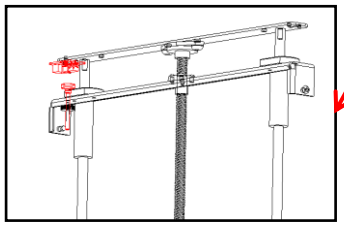


M5x22(M4x25) 4PCS

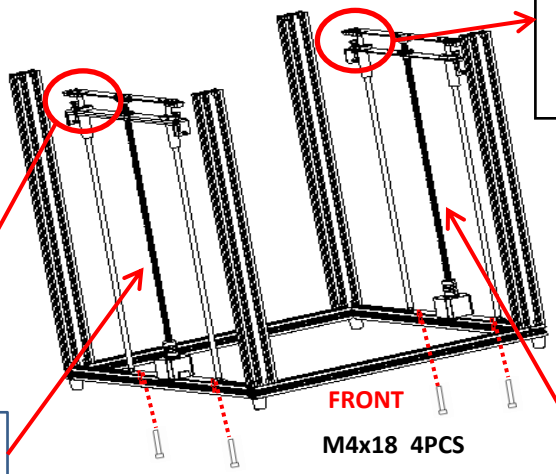
NOTE:
Pay attention to the hole on the Z profiles, it should be put on the top and outside.



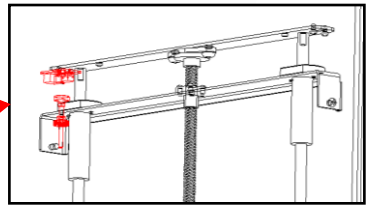
Z carrier – Left　　Z carrier – Right　　M4x18 4PCS



Z carrier assembly - Left



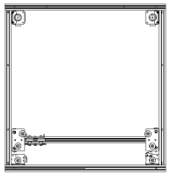
M4x18 4PCS



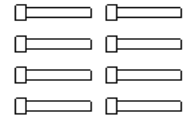
Z carrier assembly - Right

NOTE:
Pay attention to distinguish Z carrier assembly – Left and Z carrier assembly – Right

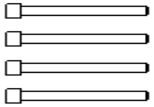
Assemble



Top assembly

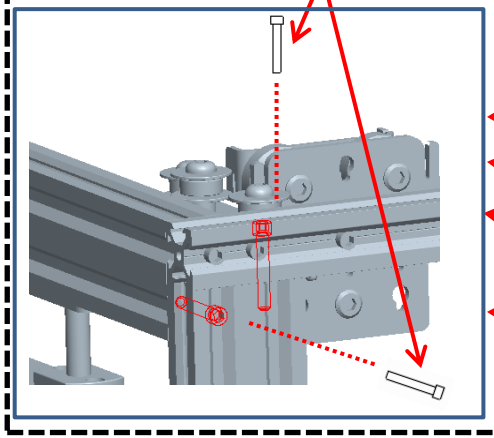


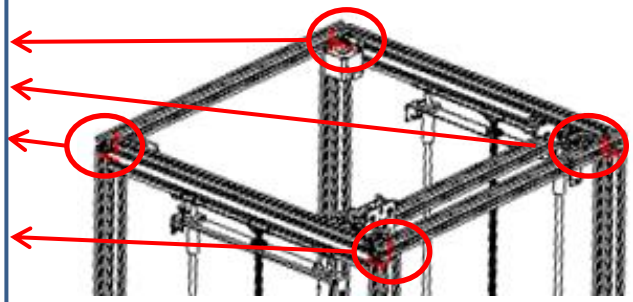
M5x22(M4x25) 8PCS



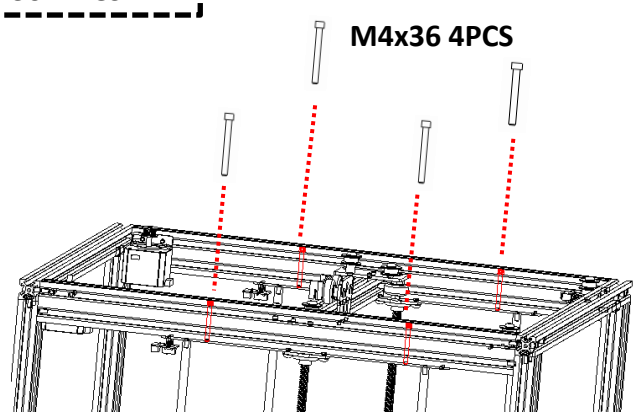
M4x36 4PCS

M5x22(M4x25)

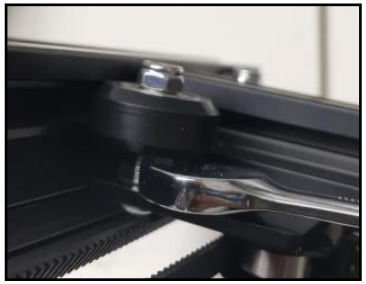




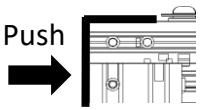
M4x36 4PCS

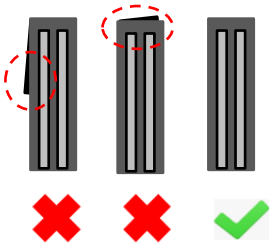


!ATTENTION!



Push

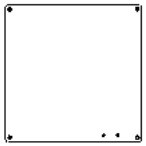


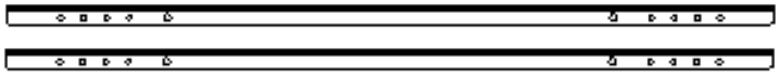


NOTE: Adjust the eccentric column so that the x-axis can not shake left and right, it is okay if there is a little gap.

NOTE: Confirm that the profile on the top 2 sides is flush with the z-axis profile.

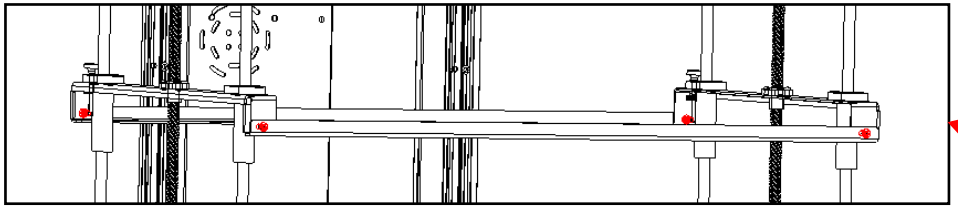
Assemble



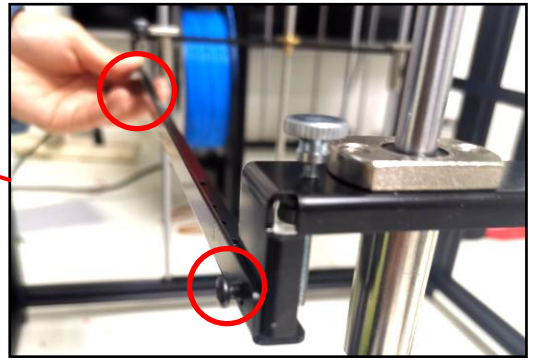


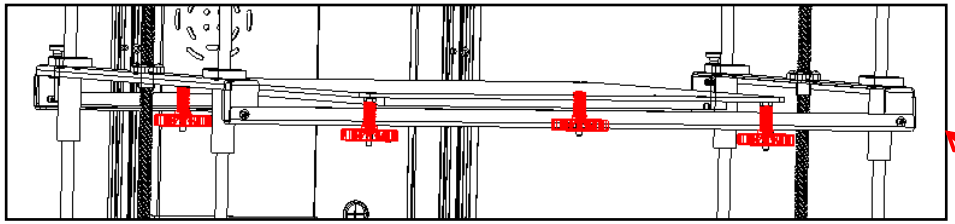
Hotbed Bracket

Hotbed screws

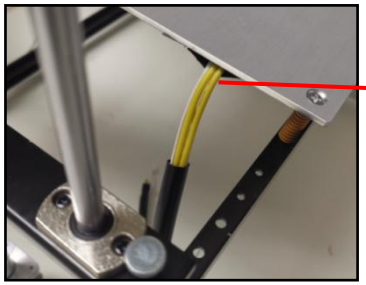


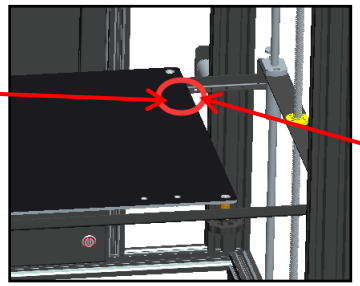
Take down these M4 screws first and then tighten hotbed bracket on the Z carriers





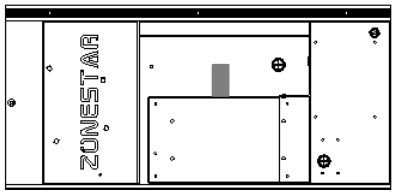
Install springs and hand nuts for hotbed

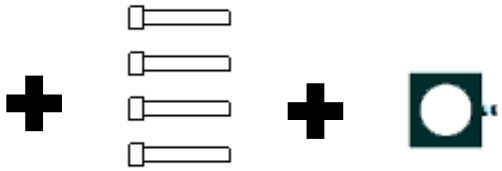




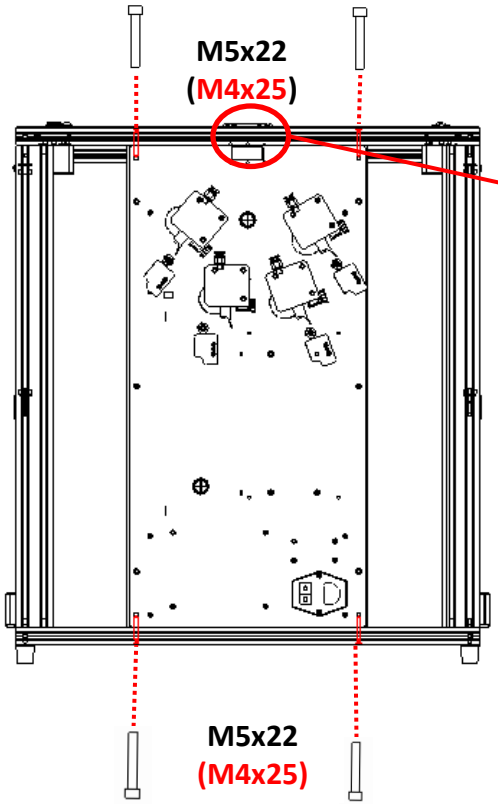
Place the hotbed cable to the right-back corner

Assemble

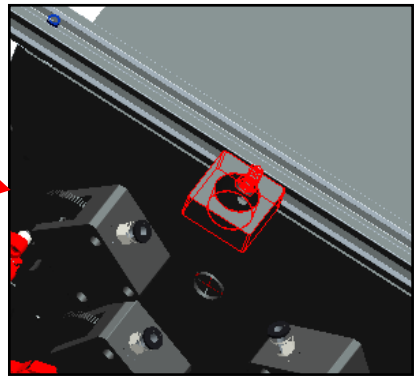


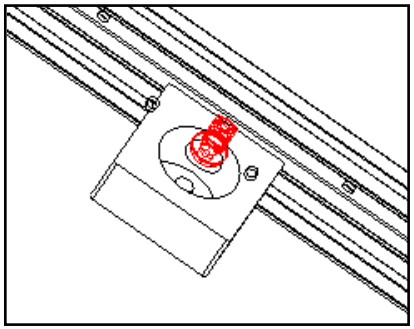


M5x22(M4x25) 4PCS Bellows holder

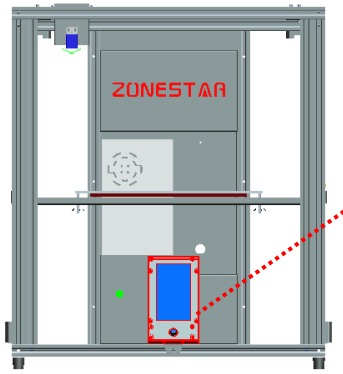


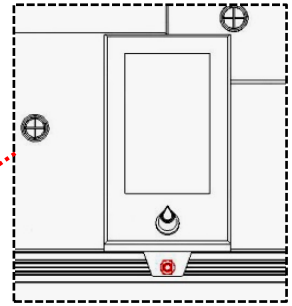
Install the control box assembly to the back of frame





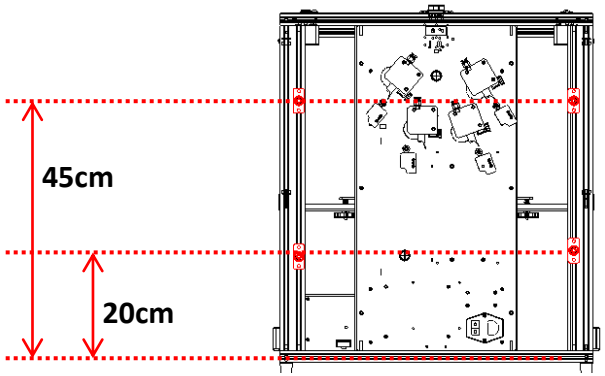
Install the bellows holder to the center of top-back profile





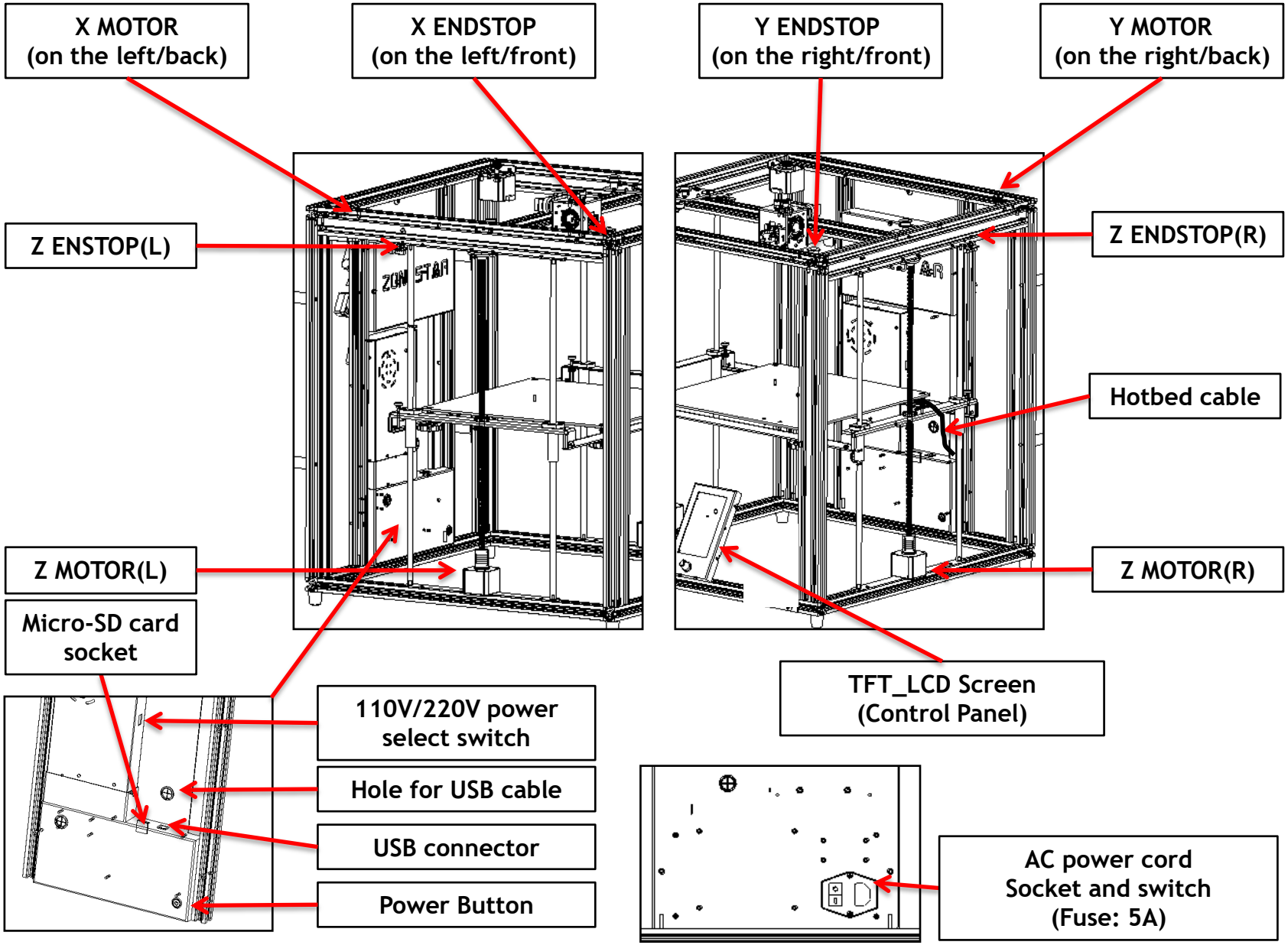
Install control panel to the Center of bottom-front profile

Filament Bracket

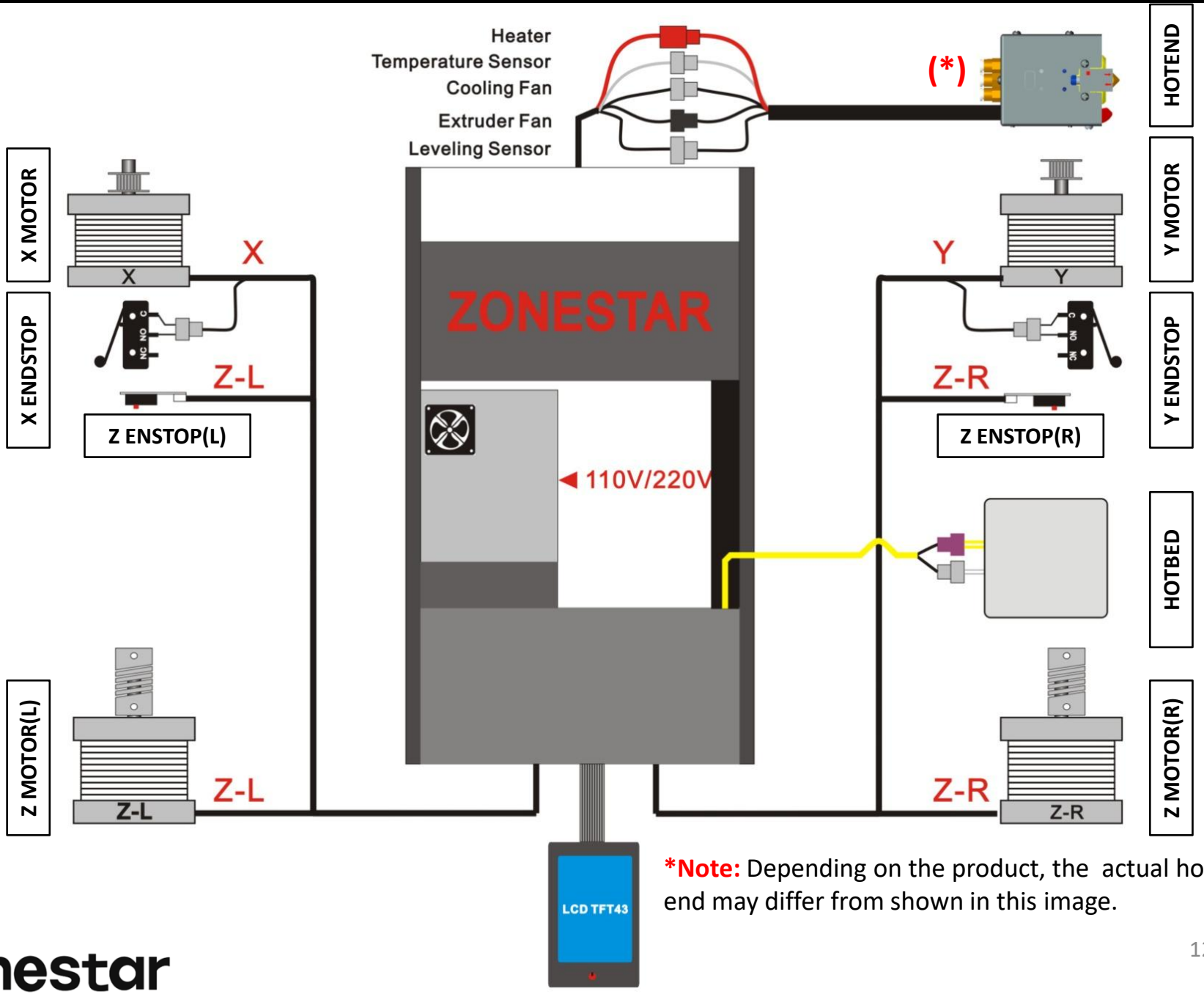


Install filament bracket to the back Z profiles

Wiring - about the electronics parts

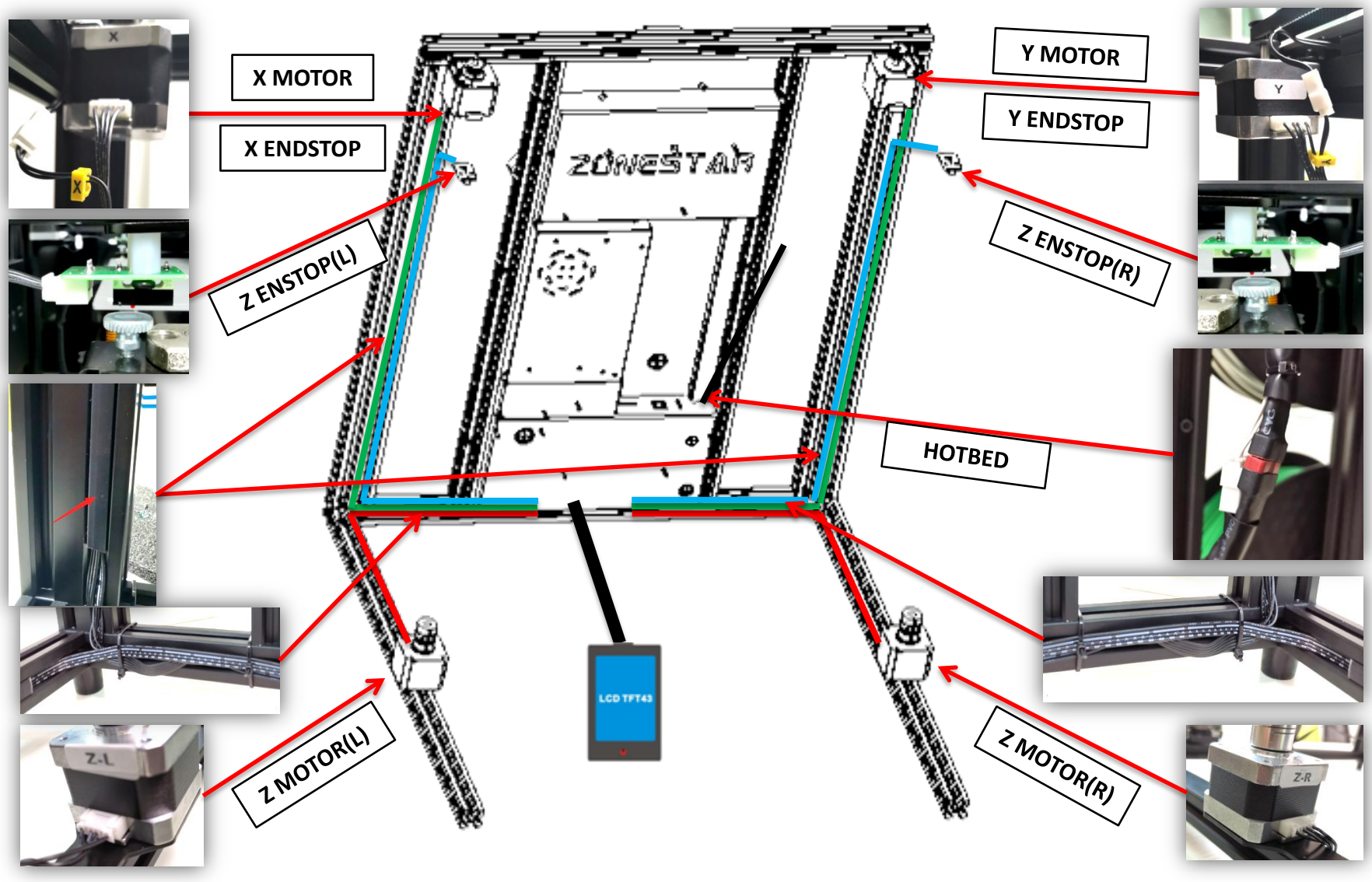


Wiring Block



***Note:** Depending on the product, the actual hot end may differ from shown in this image.

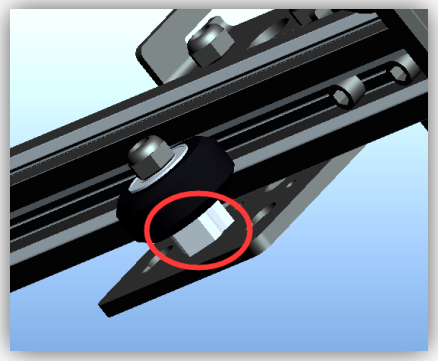
Wiring and layout the wires



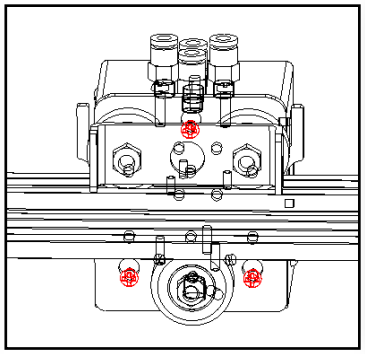
NOTE: Put wires into the groove of profiles, and covered them with “profiles cover”.

ATTENTION: Be careful not to damage the Insulation of wires.

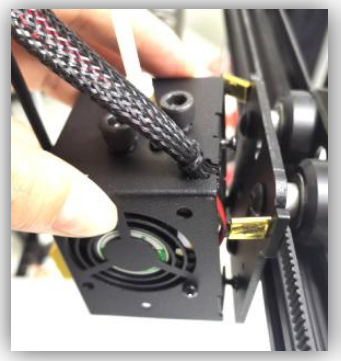
Install and wiring the hotend assembly



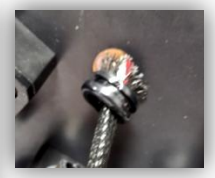
NOTE: Adjust the eccentric column to make the X carrier hold the x-axis profile well and move smoothly.

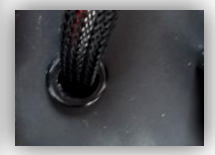


Loosen the 3 pcs of M3 screws and then tighten it to mount the hot end assembly

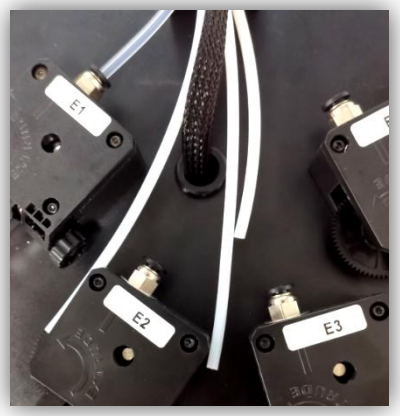


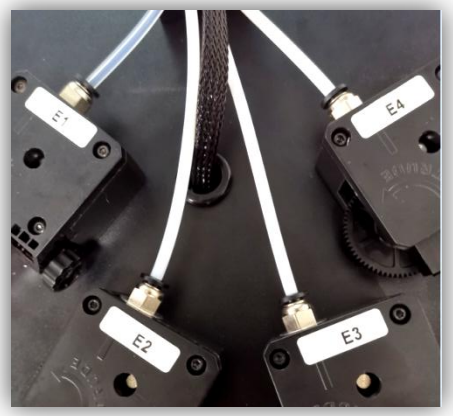
Following the color of connectors
and wires to wiring the hotend



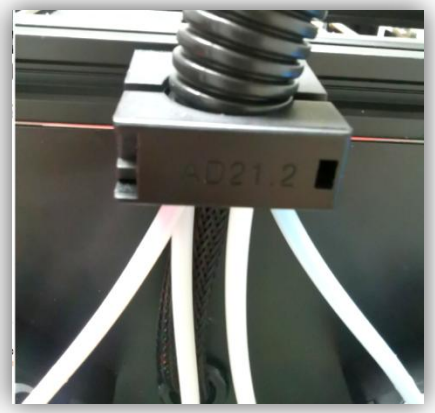


Put the wires into the control box





Plug the PTFE tubes into the extrusion feeders
Note: It is not necessary to distinguish E1 ~ E4 on hotend.

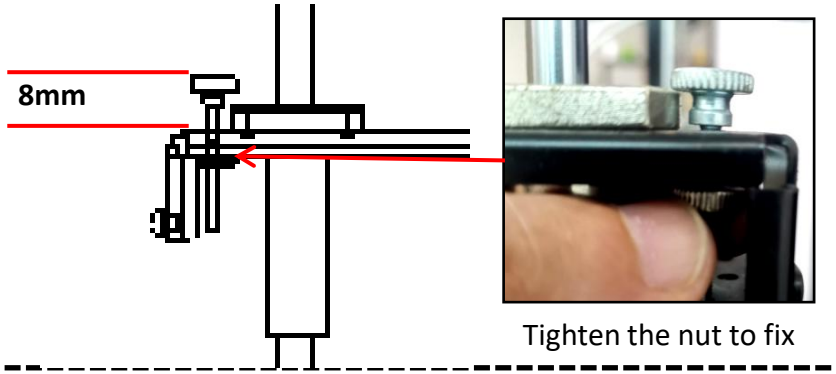


Fix the bellows by the holder.

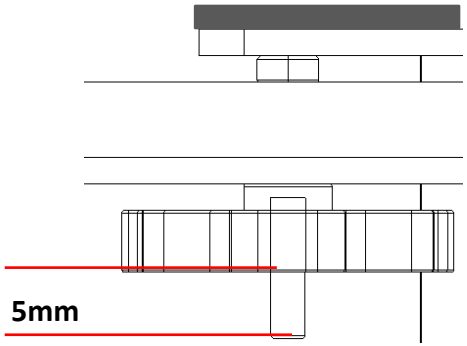
***Note:** Depending on the product configuration and version, the actual hot end assembly may differ from the shape shown in this image.

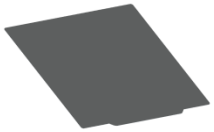
Tune the Z height adjustment screws

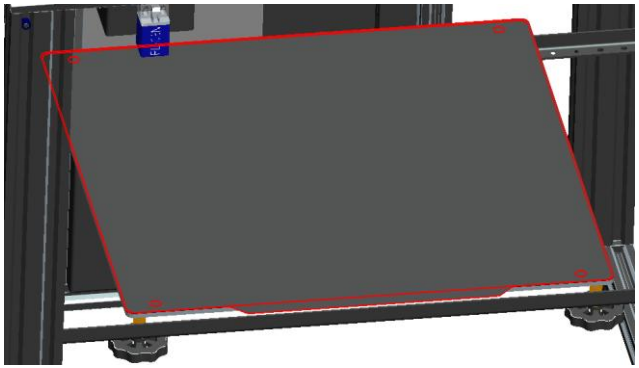
Fine tune the Z height adjustment screws (left + right) and hotbed screws (4 corners) refer to the below picture.



Tighten the nut to fix







Place magnetic hotbed sticker (A-side) on the hotbed

NOTE: Precautions for using magnetic hotbed stickers

1. Wait for the hot bed to cool before removing the sticker (< 35 ℃).
2. Be careful the distance between the nozzle and the sticker, don't let the hot nozzle touch the sticker.
3. Bend the hot bed sticker to remove the prints.

Power ON / Power OFF

ATTENTION: CONFIRM THE AC VOLTAGE SELECT SWITH HAS BEED SET TO THE CORRECT POSITION BEFORE TURN ON THE MACHINE!

Please confirm the switch set correctly before turning on the power. If your city power voltage is AC 90V ~ 120V, please set this swith to 110V, otherwise set to 220V. If this setting is incorrect, the fuse in AC socket will be damaged.

POWER ON

Plug in AC power cord and turn on the power switch

Push and hold the DC power button

hold the button until the LCD shows logo

POWER OFF

Do “Power Off” on control panel

.....

Wait the LCD screen off

Turn OFF AC Power Switch

Zonestar

LCD Menu and Operation

Title bar

Menu bar

Status bar

Control knob

Printing from SD card

Prepare to printing

Setup the machine

Information of the machine

Operation of the Knob:

Press: Execute command / Enter menu.

Rotate clockwise: Increase the value / Move to the next menu item.

Rotate anti-clockwise: Decrease the value / Move to the pervious menu item.

For details of the menu, please refer to **"LCD DWIN Menu Description.pdf".**

Prepare to print - Level the hotbed

1. Do ***"Prepare>>Auto Home>>Home All"*** on control panel, wait the hotend go to the HOME (origin) position.
2. Watch the nozzle, tighten the hand nuts under the bed to move down or loosen these nuts to move up the bed **(Fig 1),** let the nozzle is higher than the bed about 1~2mm **(Fig 2),**.
3. Do ***"Prepare>> Bed leveling>> Point 1"*** on control panel**(Fig 3)**, the nozzle will go to the corners of the bed, adjust the hand nuts under the hotbed and let the nozzle almost touch the hotbed **(Fig 4)**.
4. Repeat step 3 to do "***Point* 2/3/4"**, until all 4 corners has been leveled.
5. Repeat step 3 and STEP4 **to do 3 rounds** at least to confirm all 4 corners at the same height.

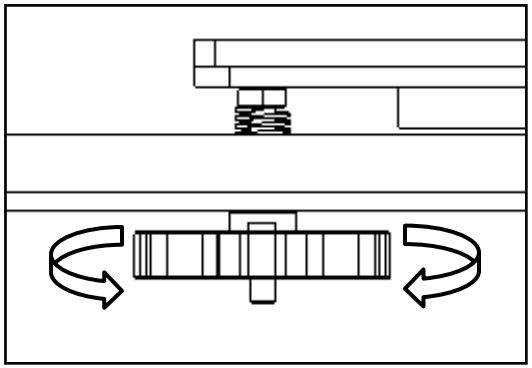


Fig 1

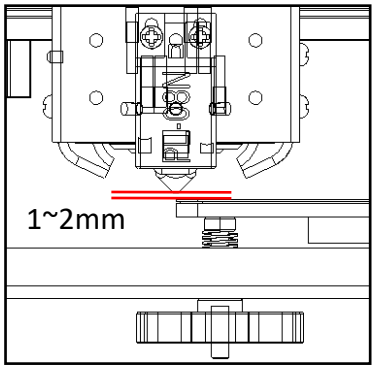


Fig 2

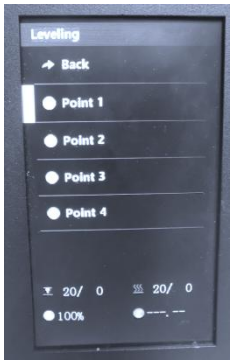


Fig 3

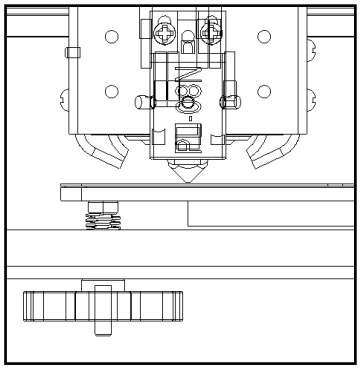


Fig 4

Prepare to print - Load Filament

1. Do ***"Prepare>>Auto Home>>Home All"*** on control panel and wait for the hot end move to original position.
2. Do "***Prepare>>Filament>> Preheat nozzle: 200***", waiting nozzle Temperature reached to 200 ℃ **(Fig 1).**
3. Use a diagonal pliers to cut off the head of filament (**Fig2**), press the handle of the ***extrusion feeder #1(E1)*** and insert filament to extruder (**Fig 3**), rotate the gear (**Fig 4**) to push the filament until you can see the filament in the PTFE tube (**Fig 5**).
4. Do "***Filament>> Quickly load***" and watch the filament until run out from the PTFE tube.
5. Plug the PTFE tube to the hot end or install the PTFE tube with fitting to the hot end (*).
6. Do "***Filament>> Slowly load***" and watch the nozzle, until you can see the filament flowed out from the nozzle(**Fig 6**).

Fig 1

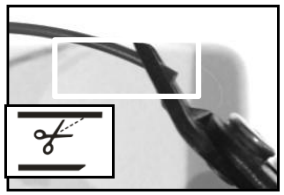


Fig 2

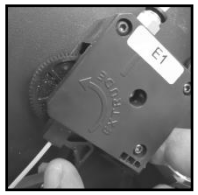


Fig 3

Fig 4

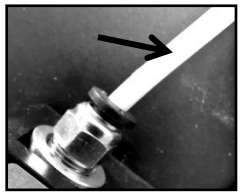


Fig 5

Fig 6

NOTE: Different types of hot ends have different requirements for loading filament. Please refer to the user guide of the hot ends.

Print your first work

1. Plug a SD card to the SD card socket on the printer (***Fig 1***).
2. Click "**Print**" on the control panel and choose "***Test gcode\xyz_cube.gcode***" (***Fig 2***), click the knob to start.
3. Wait until the hotend and hotbed is reached to the setting temperature ***(Fig 3),*** use a tweezers to remove it if there is filament flowed out from the nozzle ***(Fig 4).***
4. After heating finished, the hotend will home to the origin position and then move to above of the hotbed. Watch the distance from nozzle to bed, and double click the knob on the control panel to open a "***Babysteps***" menu ***(Fig 5)***, rotate knob slowly to fine tune the distance from the nozzle to hotbed***(Fig 6).***
5. Wait the printing finished, you will get your first works ***(Fig 7).***
6. Wait the hotbed cool ***(Fig 8)***, and then remove the sticker from the hotbed and remove prints from the sticker ***(Fig 9)***.

Fig 1

Fig 2

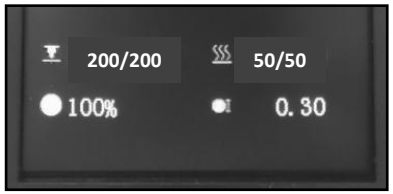


Fig 3

Fig 4

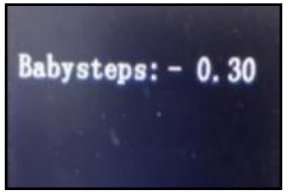


Fig 5

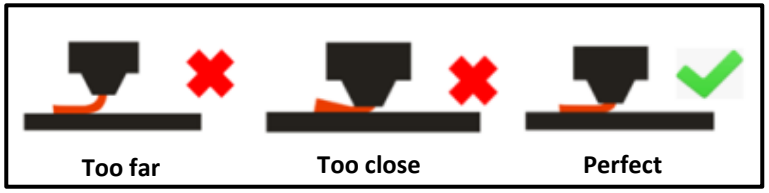


Fig 6

Fig 7

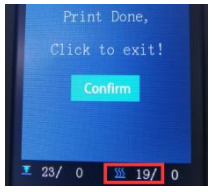


Fig 8

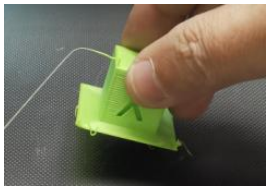


Fig 9

Slicing

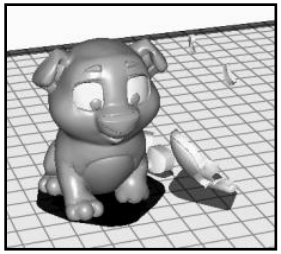
About slicing

Slicing a 3D drawing translates the 3D drawing into a language that a 3D printer can understand and print. The slicing software is a computer software used in the majority of 3D printing processes for the conversion of a 3D object model to specific instructions for the printer. In particular, the conversion from a model in ***STL(Obj, Amf)*** format to printer commands in **g-code** format. This machine can use a variety of slicing software to complete slicing.

!ATTENTION PLEASE!

1. **Slicing software is not a part of this product.**
2. You can download slicing software for free from the internet, some slicing software can be used to this kit, for example PrusaSlicer, Cura, etc. What we recommend is PrusaSlicer.

Slicing and print process

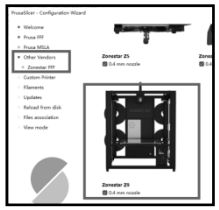
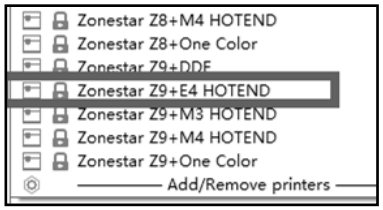





Load stl files → Setup settings → Slicing and preview → Save gcode file to SD card → Plug SD card to machine → Print from machine

Install slicing software and step up the printer

1. Download PrusaSlicer software from **https://doc.zonestar3d.com/11,** save to the hard disk of your PC or laptop and unzip it, then you can find a PrusaSlicer execute file, click to run it.
2. It will start to work a “Configuration wizard”, choose “Zonestar FFF” and “Z9 0.4mm”, click **“**finish**”.**
3. Choose Zonestar Z9+E4 HOTEND on printer settings.

Scan this QR code to download slicer and guide

Advance features

NOTE: Do not turn on these functions until you clearly understand how to use them and precautions.

◆ Filament run out detection :

This printer is equipped with 4 *filament run out sensors*. With these sensors, the printer can pause the printing while one of the filament spool used up, and when you load a new roll filament, you can continue to print. For the detail please refer to ***How to set filament runout function.pdf***.

Menu: Control>>Configure>>Runout Sensor

◆ Power loss recovery :

While printing from SD card and power is lost, after power on again, the printer will resume to print from the last layer which printed before power lost. For the detail please refer to ***Power loss recovery feature user guide.pdf***.

Menu: Control>> Configure>>Power Loss Recovery

◆ Power auto shut down :

While printing from SD card and the work is finished, the printer will auto shut down after about 3 minutes. For the detail please refer to ***How to set auto shutdown function.pdf***.

Menu: Control>> Configure>> Auto Shutdown

◆ Bed auto leveling:

This printer is equipped with a ***Bed leveling sensor***, with this sensor, you can correct the unevenness of the hot bed. . For the detail please refer to the guide in ***"Bed Auto Leveling Feature"***.

Menu: Control>> Configure>> Auto Leveling

◆ Auto mixing color (Optional):

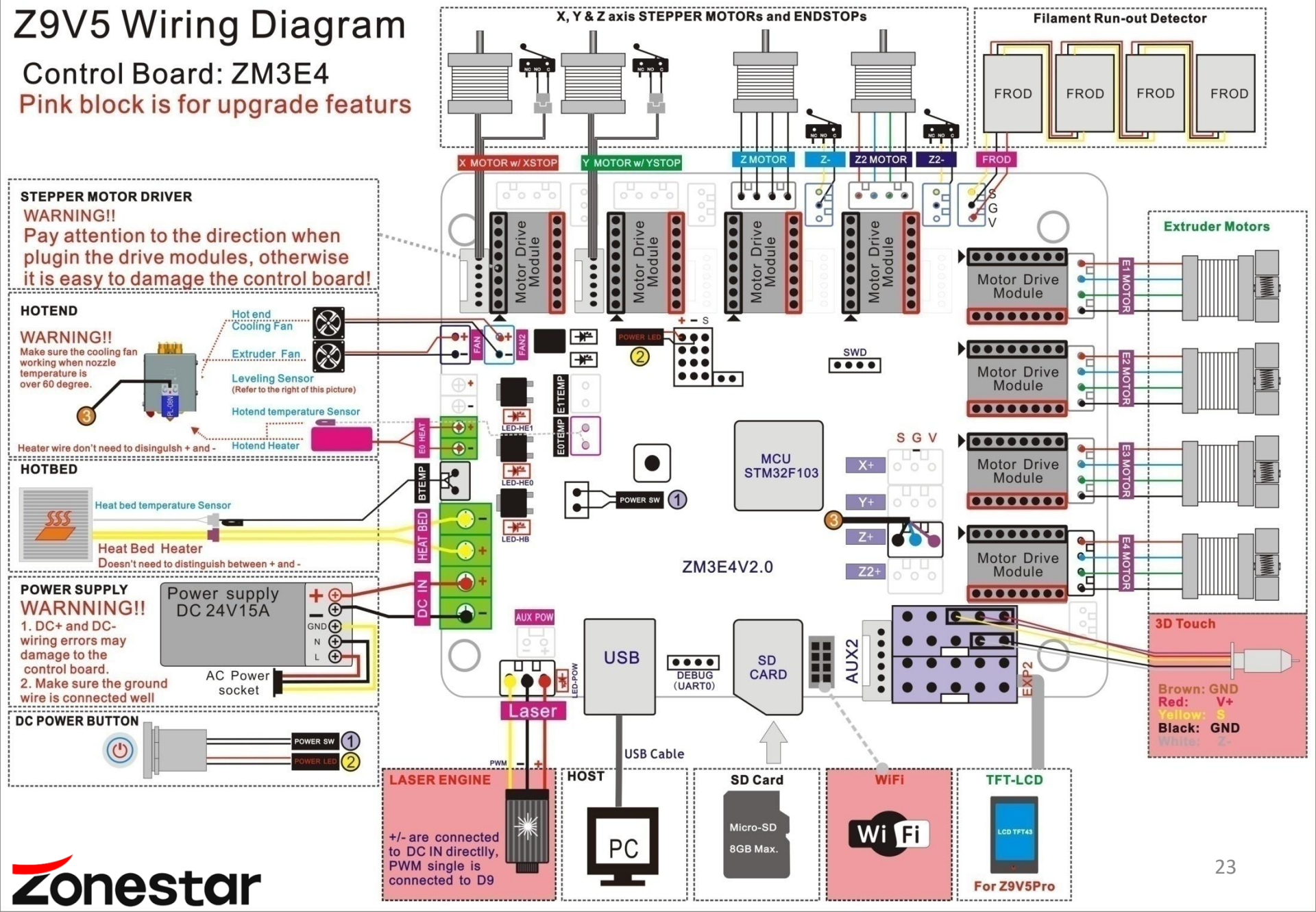
!NOTE! Default Z9V5Pro-MK4 is equipped with a 4-IN-1-OUT Non-mixing color (E4) hotend, if you want to use mixing color feature, please purchase a mixing color hot end and install to your printer first. For the detail please refer to ***How to set gradient color printing.pdf*** and ***How to set random color printing.pdf .***

Menu: Control>> Configure>> Hotend Type: mixing

◆ WiFi (Optional):

!NOTE! Default Z9V5Pro-MK4 didn't equip with a WiFi module, if you want to use this feature, please purchase a WiFi module and install to your printer first, about detail, please refer to the guide in the WiFi module sell link.

Wiring Diagram(Z9V5Pro)



Zonestar