ZONESTAR
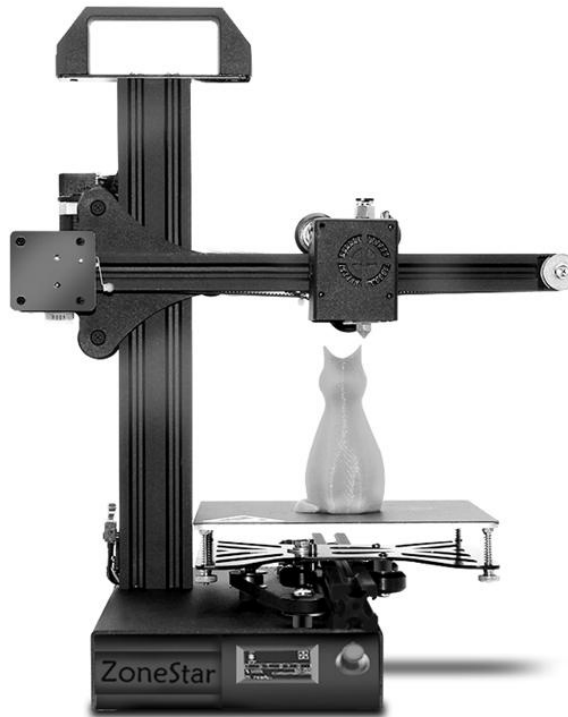
Model: Z6F/Z6FB/Z6X

User Manual

!! 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.
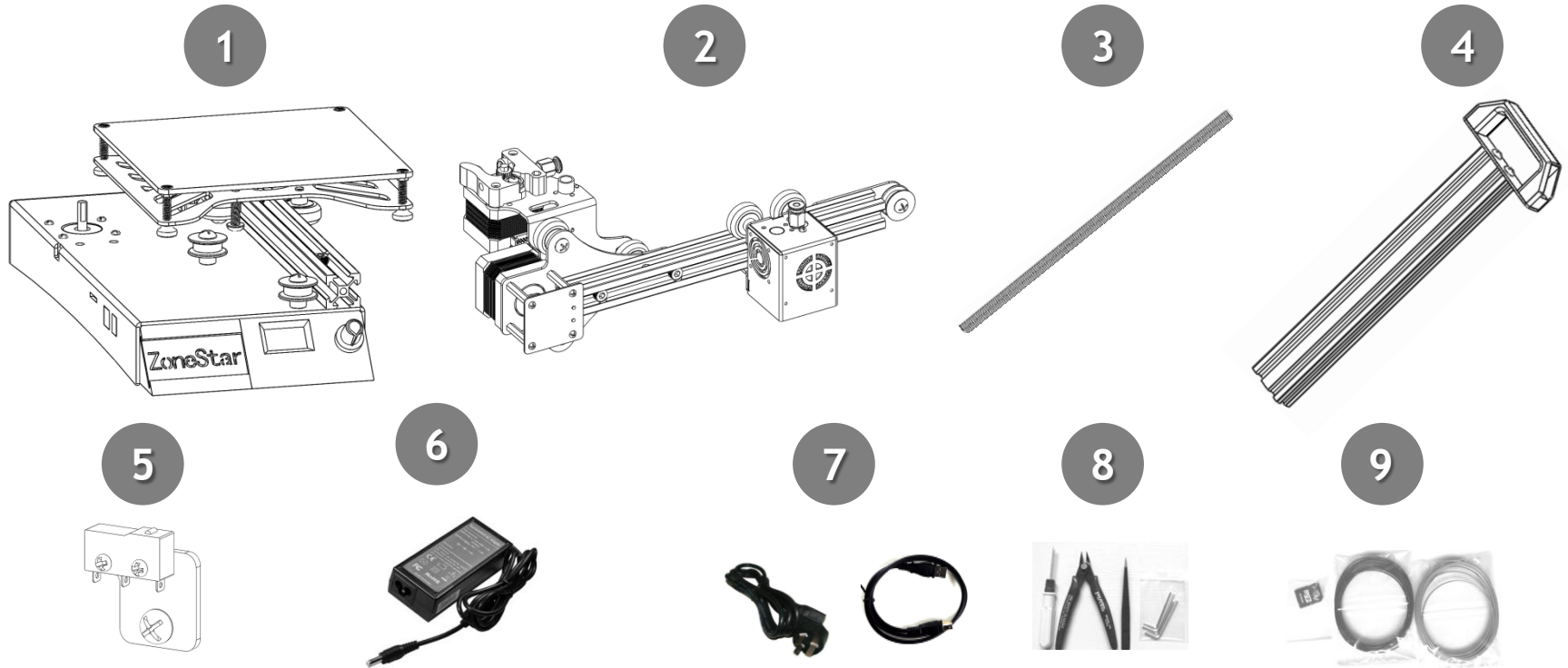
Caution: Hot!
Hotbed has high temperature even the printer stop working.

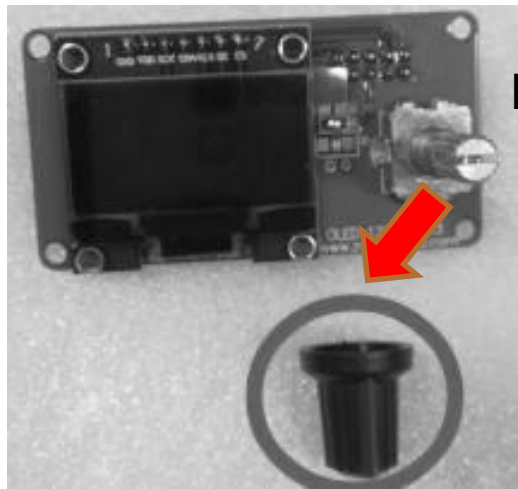Please keep well-ventilated condition! May produce toxic gases when printer working.

1	Base Module	6	Power adapter (The newer version used PSU and has assmbled to Base module)
2	X-axis Module	7	USB cable and Power cord
3	Lead screw	8	Tools
4	Z-axis Module (For Z6X, Handle may not be Pre-assembled)	9	Gift and TF card
5	Z-EndStop(Pre-assembled with Base Module)		

NOTE: In order to protect the LCD screen, we un-assemble the control panel before send out the kit, please loosen the 4 screws and then install the control panel to the Base Module. Pull out the knob cap from the knob before install the control panel, and install it back after finished to install it.
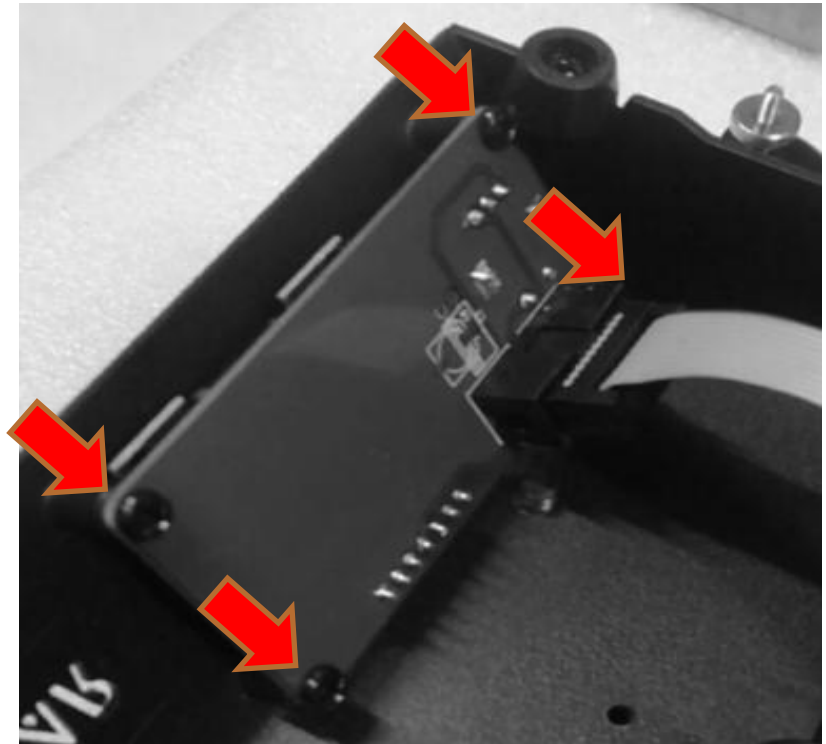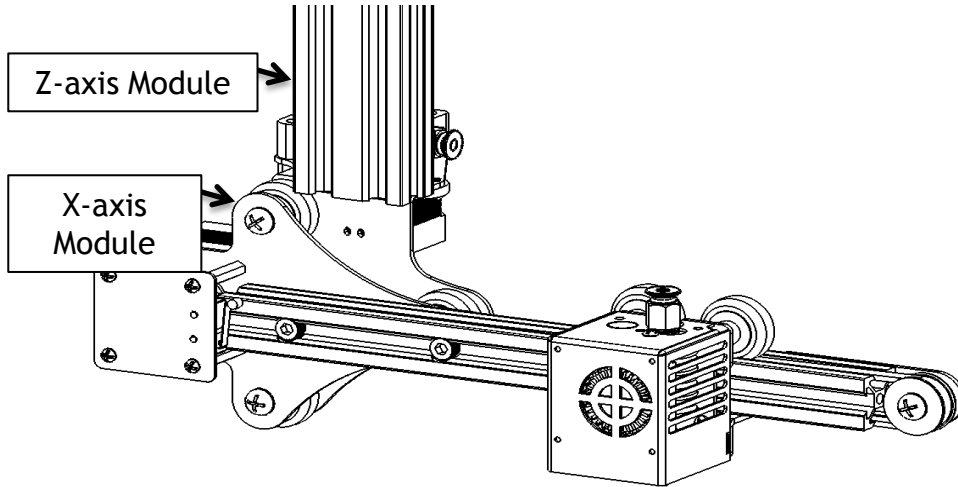
Step 1: Pull out the knob cap

Step 2: Install control panel

knob

knob cap

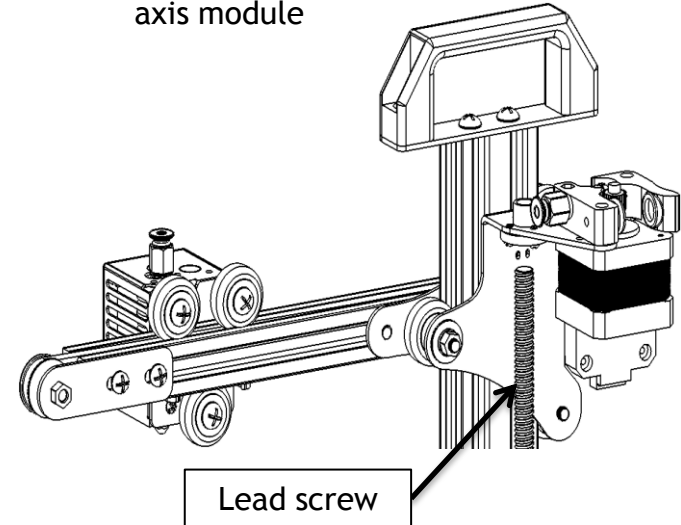ZONESTAR

Step 1

Insert the Z-axis Module into the carrier of X-axis Module
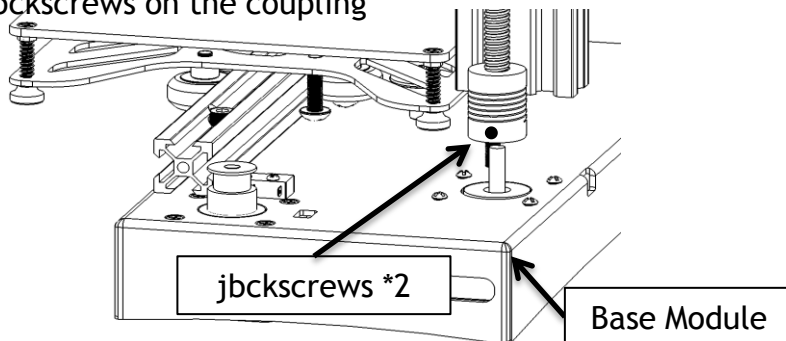
Z-axis Module

X-axis Module

Step 2

Screw the Lead screw into the carrier of X-axis module

Lead screw

Step 3

Install the coupling into the motor shaft and tighten the jbckscrews on the coupling

jbckscrews *2

Base Module

Step 4

Fixed the Z-axis module to the base module by screws (Take down the two screws from the end of profile first)

PM5x12 *2

ZONESTAR

5
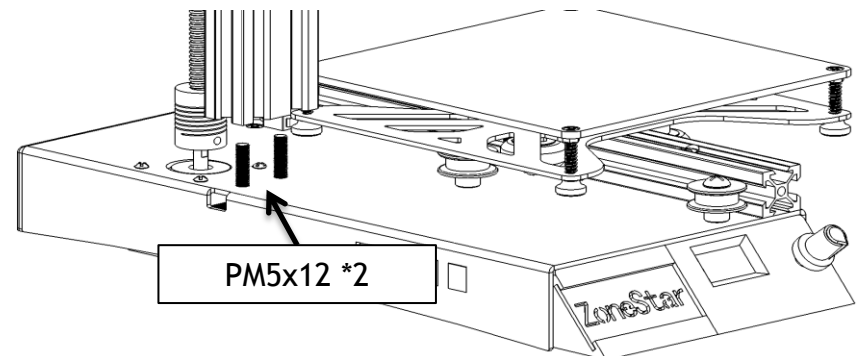
Install

Step 5

Install the Z-ENDSTOP to Z-axis aluminum profile and tighten the screws.

Z ENDSTOP
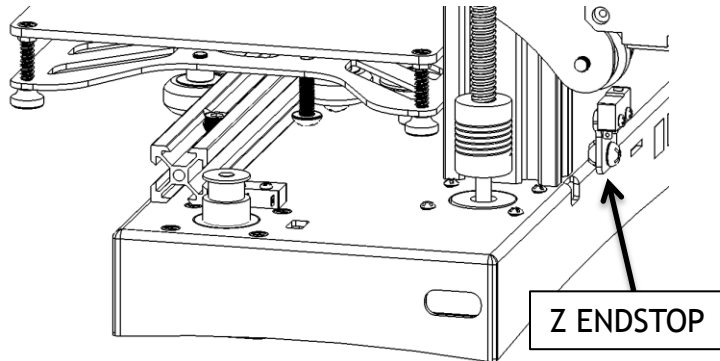
Step 6

Plug the PTFE tube into the fittings to connect the extrusion feeder and hotend

Step 7

Use a spanner to rotate the three eccentric columns, so that the wheels can hugged the tracks closely and move smoothly.

eccentric columns

10mm wrench

ZONESTAR

6

FROD is optional

FROD

E1 Motor

X-axis Motor

Y-axis Motor

Z-axis Motor

C NO NC
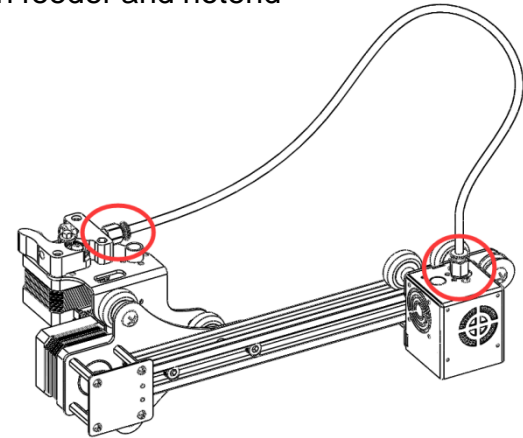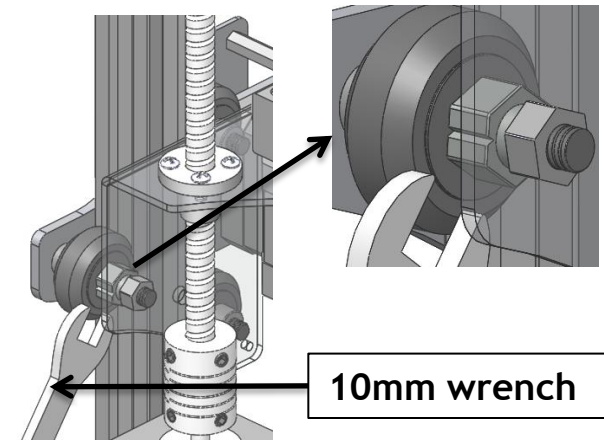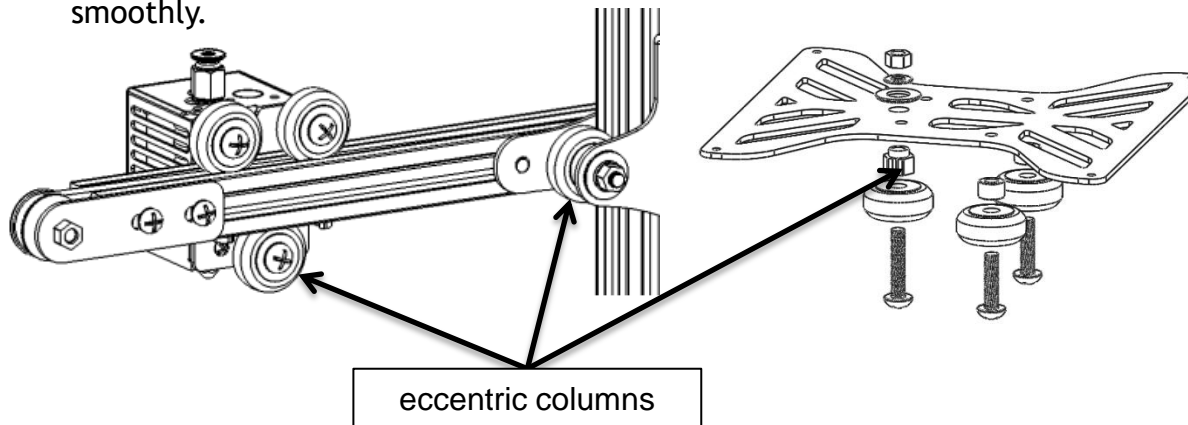
C NO NC

C NO NC

E1 MOTOR

E SW

X MOTOR

X SW

Y MOTOR

Y SW

Z MOTOR

Z SW

NOTE:Hotend cooling fan is on the side and the print object cooling fan is on the front. Hotend cooling fan will work when power on

Hotend Cooling Fan

Print Object Cooling Fan

FAN1

FAN2

HOTEND

ETEMP
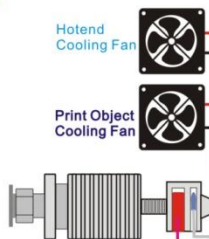
1. Large working current, make sure these two wires contact well with the connector.
2. No need to distinguish + and -

BTEMP

HB −

+ HB −

WARNING

ZMIBV2 Control Board

MCU ATMEGA1284P

AUX POW

USB2UART chip

USB

USB Cable

Power Adapter

NOTE: 12V 6A Adapter

PC

USB HOST

LCD Cable

EXP1

LCD&Keypad

8

FROD is optional

FROD

E1 Motor

X-axis Motor

Y-axis Motor

Z-axis Motor

C NO NC

C NO NC

C NO NC

E1 MOTOR

E SW

X MOTOR

X SW

Y MOTOR
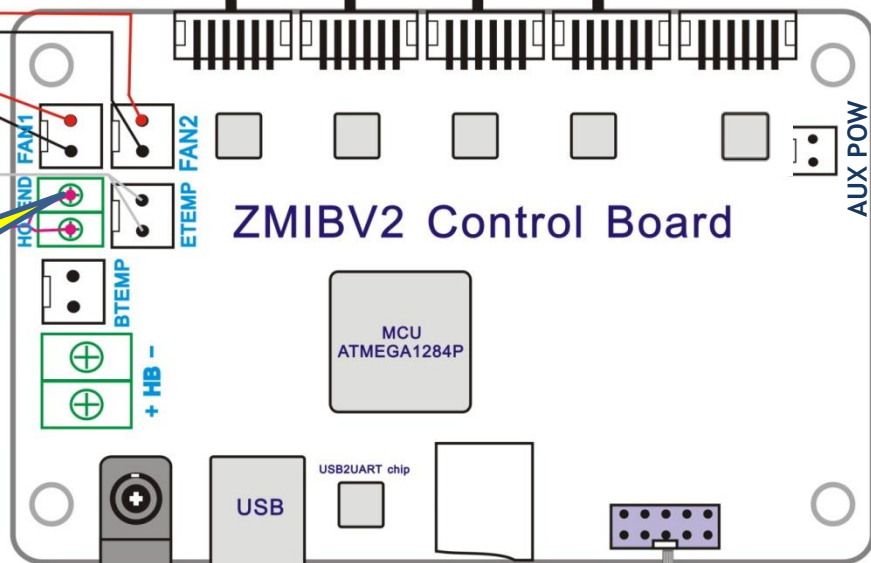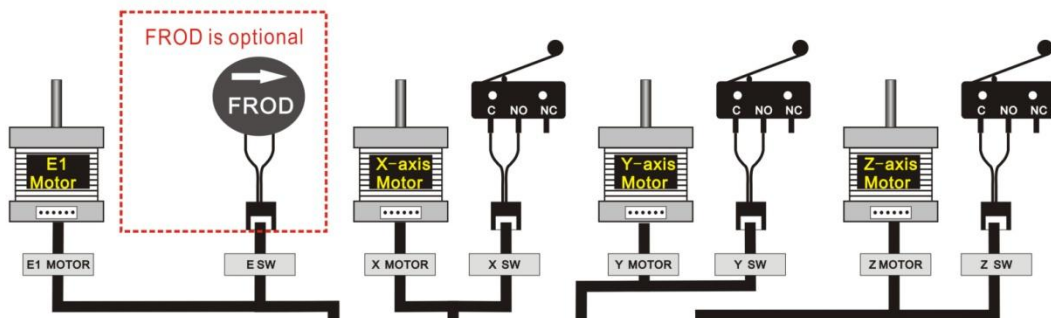
Y SW

Z MOTOR

Z SW

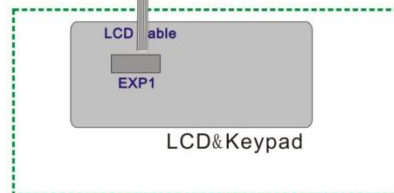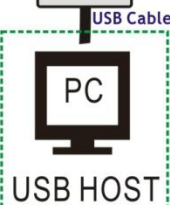NOTE:Hotend cooling fan is on the side and the print object cooling fan is on the front. Hotend cooling fan will work when power on

Hotend Cooling Fan

Print Object Cooling Fan
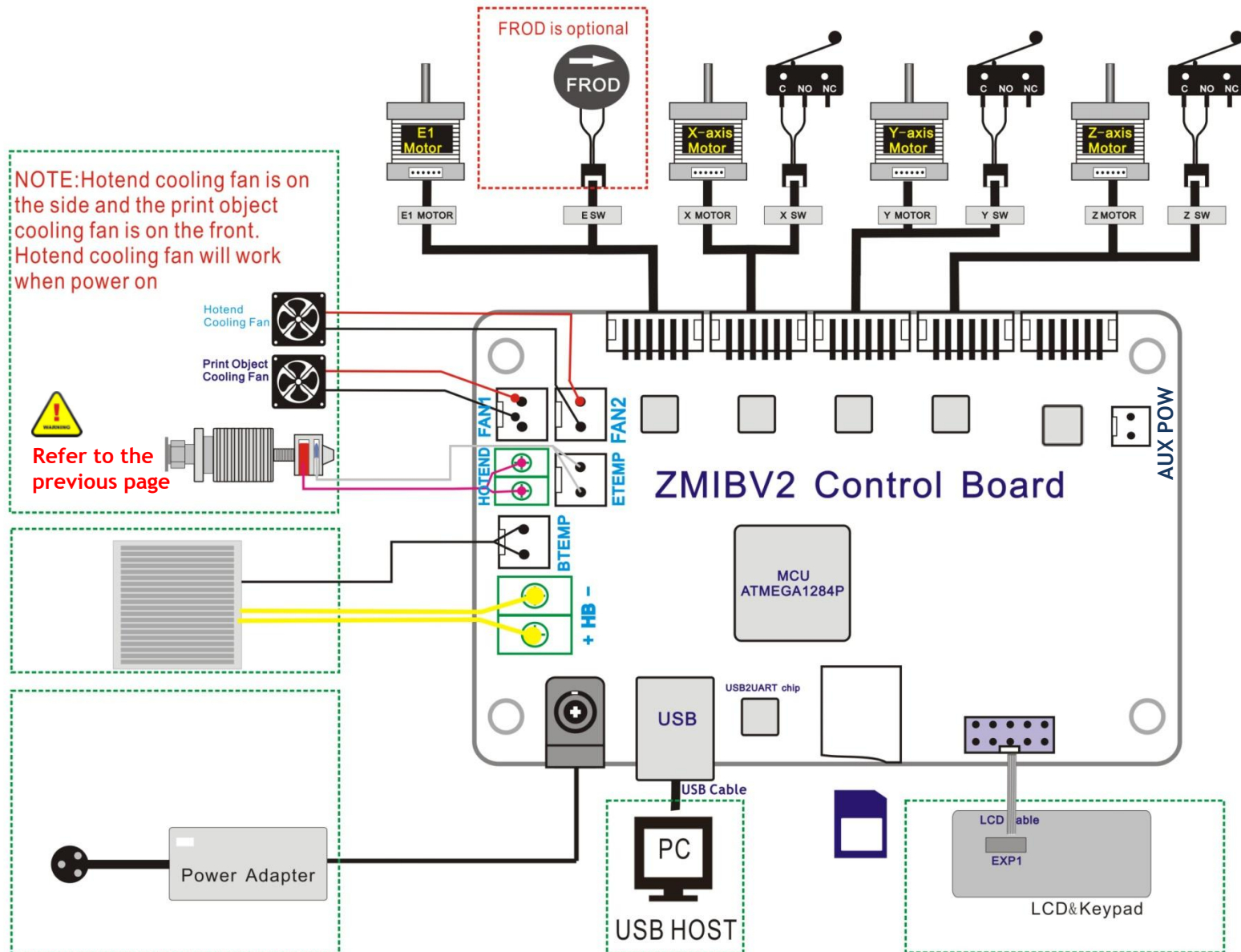
WARNING

Refer to the previous page

Hotend Cooling Fan

FAN1

FAN2

HOTEND

ETEMP

ZMIBV2 Control Board

AUX POW

BTEMP

+ HB −

MCU ATMEGA1284P

USB2UART chip

USB

Power Adapter

USB Cable

PC

USB HOST

LCD Cable

EXP1

LCD&Keypad

LCD Menu and Operation

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

Hotbed setting temperature

Hotbed current temperature

Hotend setting temperature

FAN status

200°

60°

Hotend current temperature

162°

35°

60%

FAN Speed

Current position of axis

Y 98   Y 186   Z 15.64

Printed time

Feedrate

F R 100%

29%

19:28

Printing progress rate

Status Message

Heating Done.
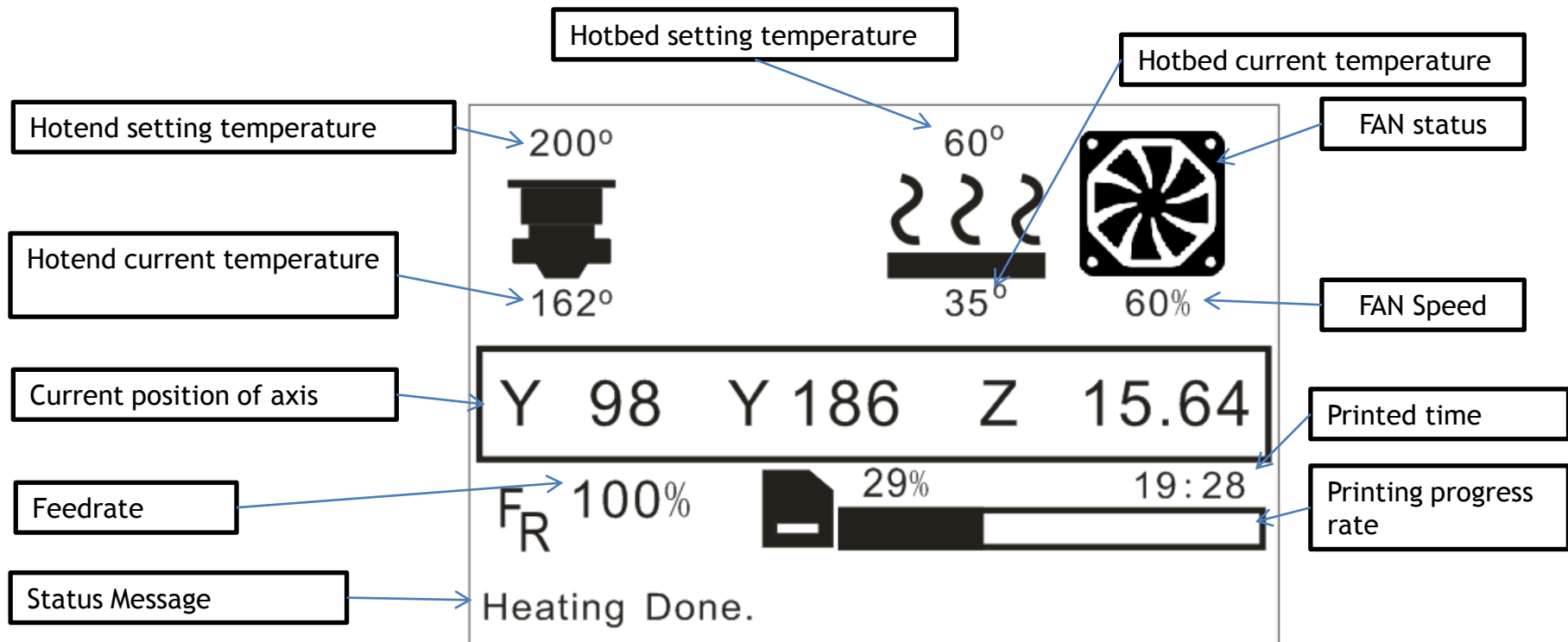
For details on the LCD menu, please refer to the file "LCD Menu Description.pdf" in the TF card.

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 properly distance, you can put a A4 paper on the hotbed, and when the distanse 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.
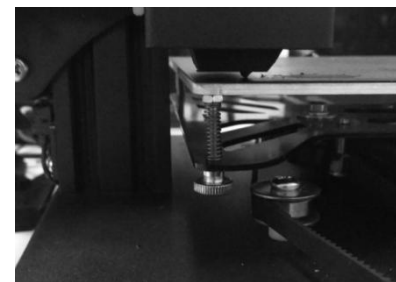
| Home all axis | start "level corners" wizard | Adjust bed height | put a paper on the bed to measure the height |

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.

NOTE | Filament | NOTE | PTFE tube | Extrude engine | PTFE fitting | PTFE fitting
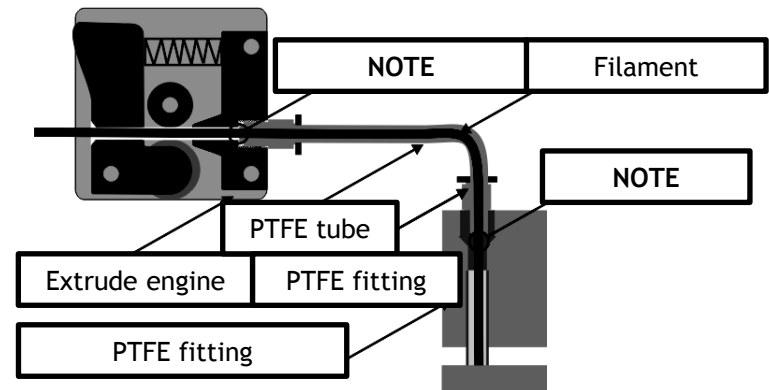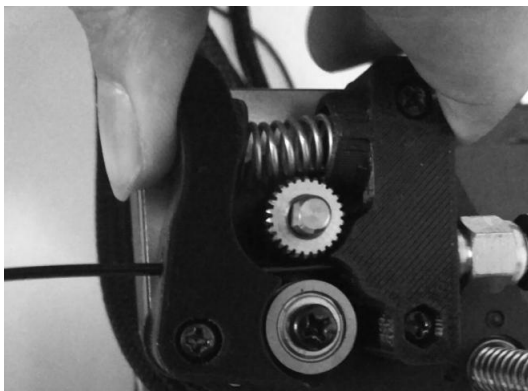
Use a diagonal pliers to cut off the head of filament

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 SDcard pointing up*

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 and set the z offset if the distance is not perfect, let the filament can stick on the hotbed well.

4 If you have a dual extruder printer, you need to print one filament roll dock by yourself, please find "*spoole_ZSD_V2x4.gcode*" file in SD card and print it out.
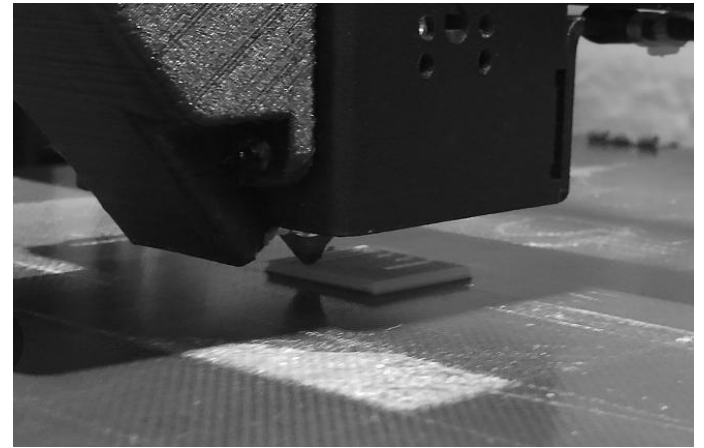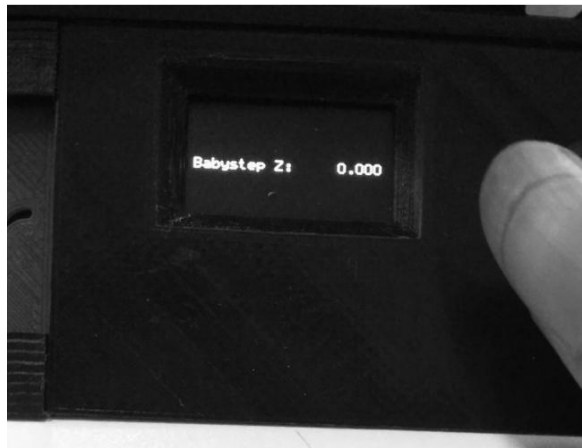


> **Insert SD card to control box and then start to print**

> **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"**.*

3D object file	load to slicing software	slicing	Copy to SD and print it or print from PC HOST
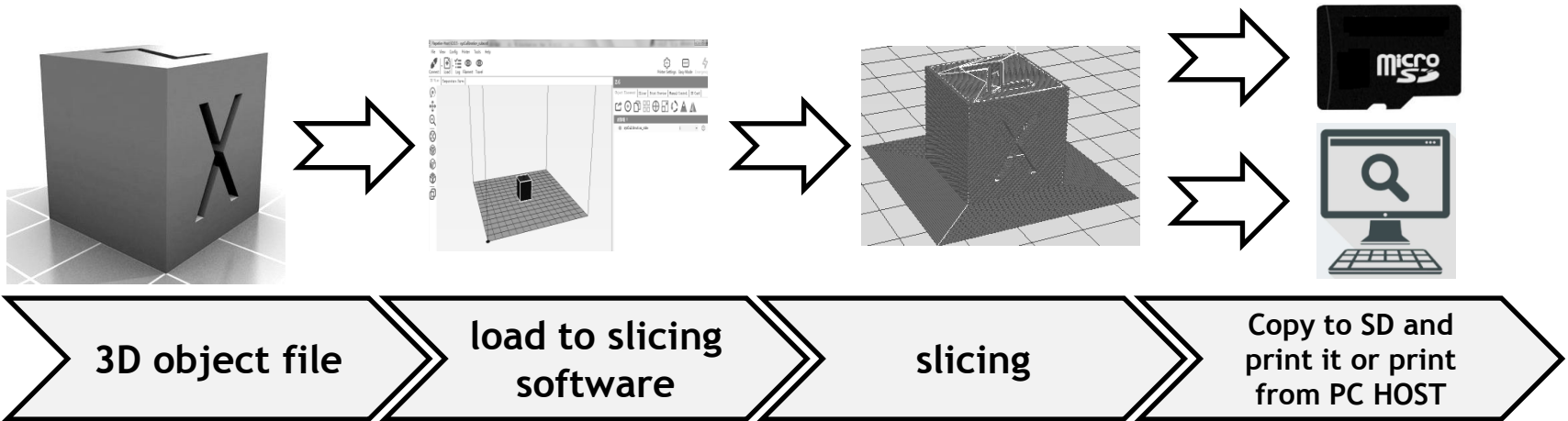
2 *Our recommended slicing and HOST software is **repetier-host**, which is a free software, you can also use any other software to slicing the 3d model as long as it can support reprap protocol, for example: Cura, slic3r, KISSlicer, pronterface, simplify3d etc.*

3 *For more about slicing, please refer to the document in the SD card, directory: "**PC Software & Driver\slicing & Host software**". Y*ou can also download the latest document from our cloud disk: ***https://drive.google.com/drive/folders/0B9Z1DbrxfqbpUjNHRXhBWmIVZVU*** If you want to control the printer from PC HOST, we store the guide in SD card, please find it out and read it.