Afinibot 3D PRINTER A3

INSTALLATION GUIDE V.04

Classification Of Screws

M3 nuts 50pcs

M3*20mm Round head screws 42pcs

M2.5*10mm black screws 2pcs

M8 nuts 12pcs

M3*10mm inner hexagon screws 15pcs

M3*30mm Flat-head screws 4pcs
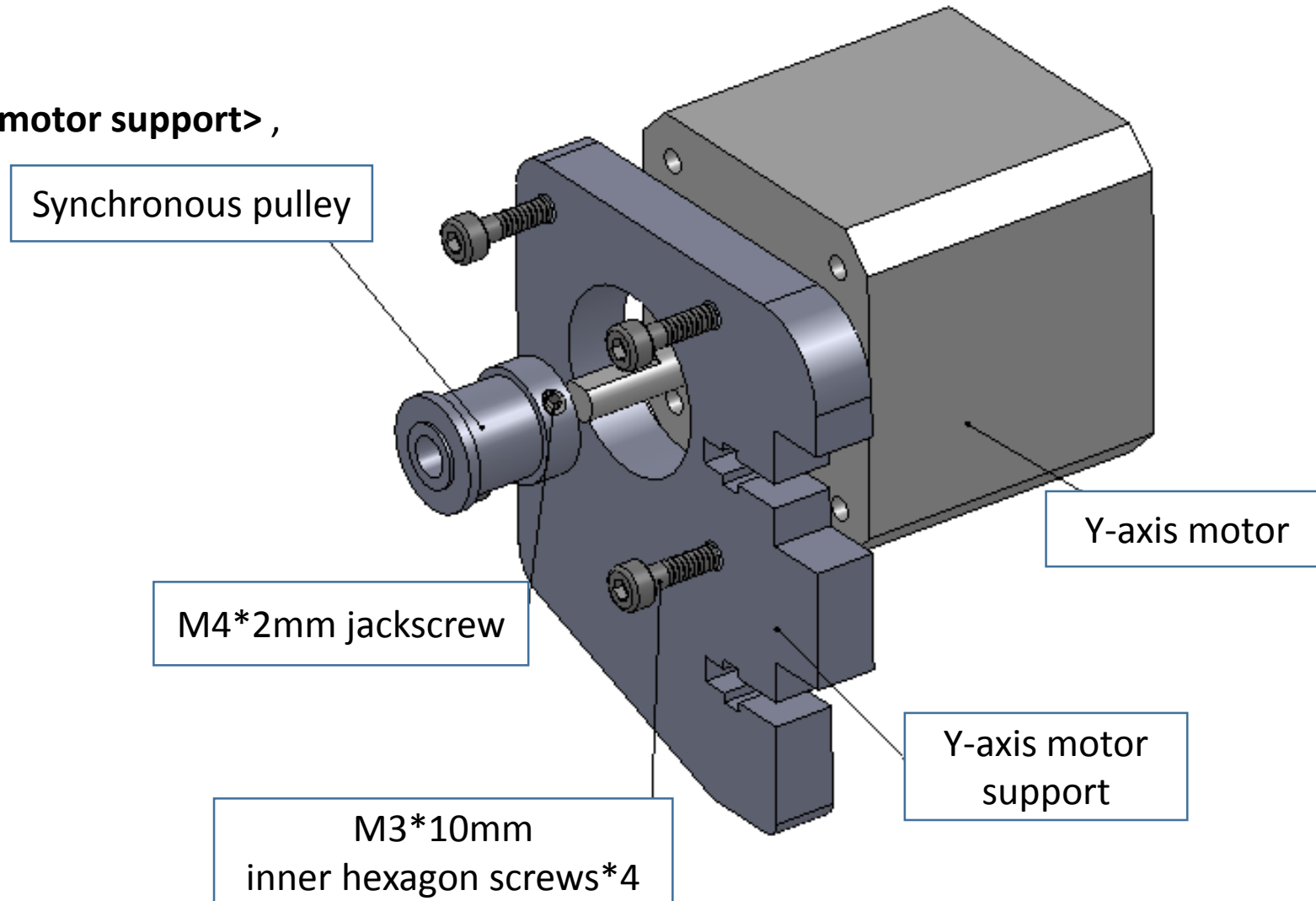
M8 Cushion ring 12pcs

M3*14mm Flat-head screws 7pcs

Plastic Pillars 4pcs

Step 1 Assemble Y-axis Motor

◆ Fit the **synchronous pulley** on the motor, Locking with **M4*2mm jackscrew**.

◆ As the picture, Put Y-axis motor on **<Y-axis motor support>** , locking with Four **M3*10mm screws**.

Synchronous pulley

Y-axis motor

M4*2mm jackscrew

Y-axis motor support

M3*10mm inner hexagon screws*4

Step 2 Assemble Y-axis Limit switch

◆ Put the **Y-axis limit switch** and the **holder** together ,locking with two **M3*20mm Round head screws & nuts**. As picture

M3*20mm Round head screws

Y-axis limit switch

Y-axis limit switch holder (Acrylic)

M3 nuts
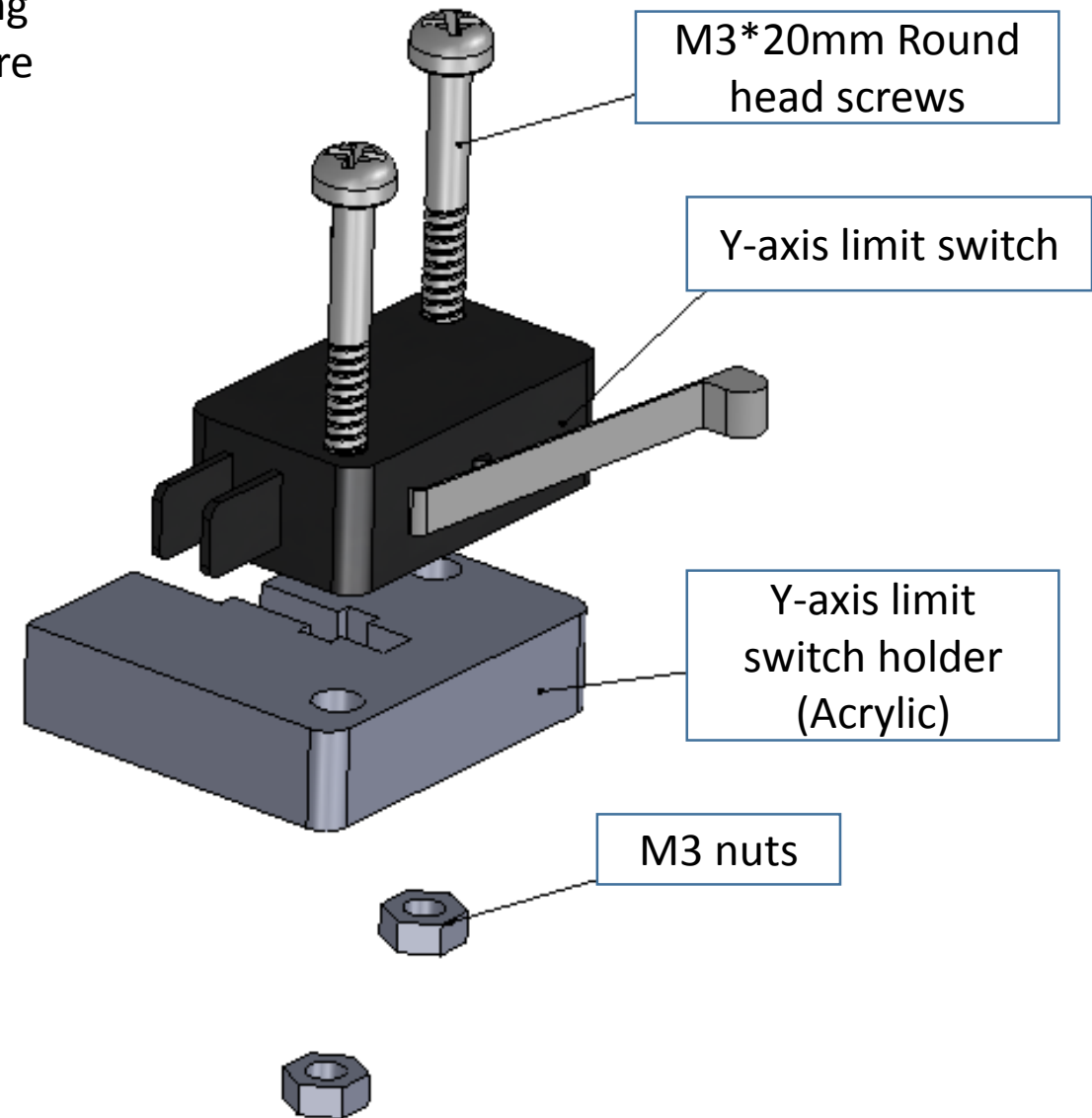
Step 3 Assemble Base Frame Holder_Back

◆ As the picture, put two of the **Sliding rod Restriction** in front of the **base frame holder (back)**. locking with two **M3*20mm Round head screws & nuts**.

◆ Put the limit switch and holder assembly on the base frame holder, locking with one **M3*20mm Round head screw & nut.**

◆ Put **Y-axis motor holder** on base frame holder ,locking with one **M3*20mm Round head screw & nut**.

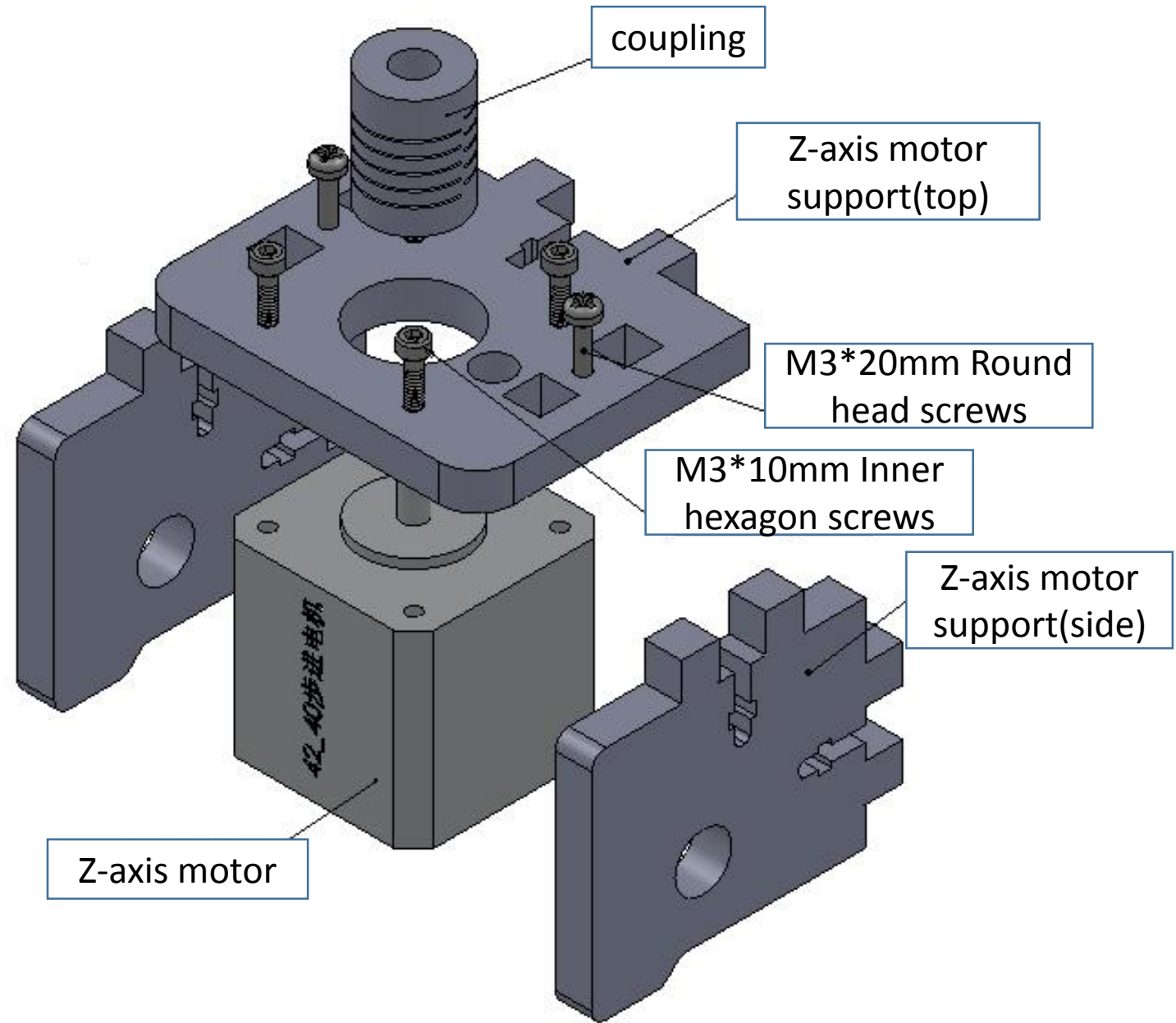◆ Put **Y-axis motor assembly** on base frame holder, locking with three **M3*20mm Round head screws & nuts**.

Sliding rod Restriction*2

M3*20mm screws

M3 nuts

M3*14mm screws & nuts

Y-axis motor assembly

Base frame holder_Back

Y-axis motor holder

Base frame holder(back)
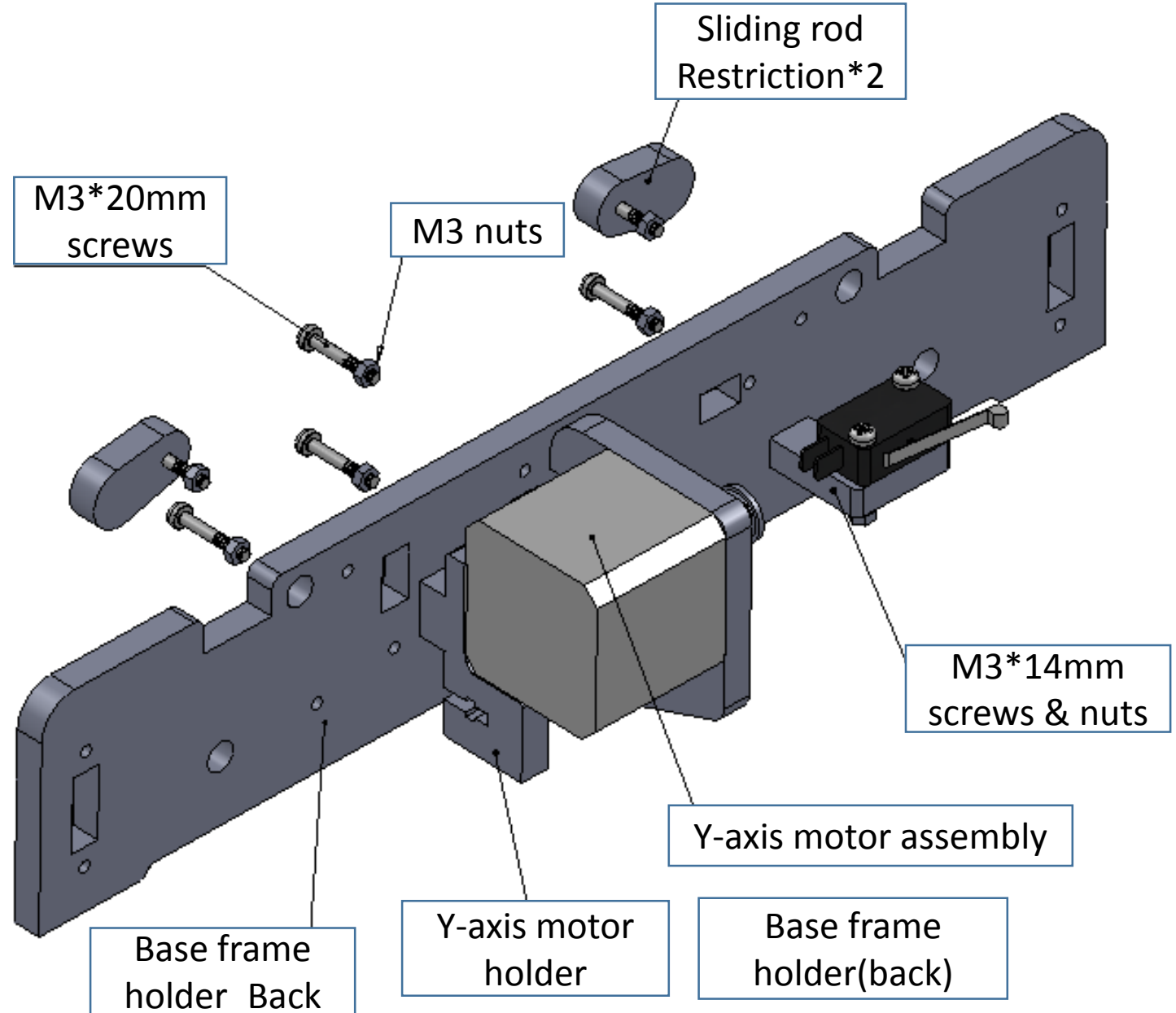
Step 4 Assemble Base Frame Holder_Front

◆ As the picture, put two of the **Sliding rod Restriction** in front of the **base frame holder _front**. locking with two **M3*20mm Round head screws & nuts**.

◆ Put **Y-axis belt pulley wheel assembly** behind the base frame holder, Locking with two **M3*20mm Round head screws & nuts**.

Base Frame Holder_Front

Y-axis belt pulley wheel assembly

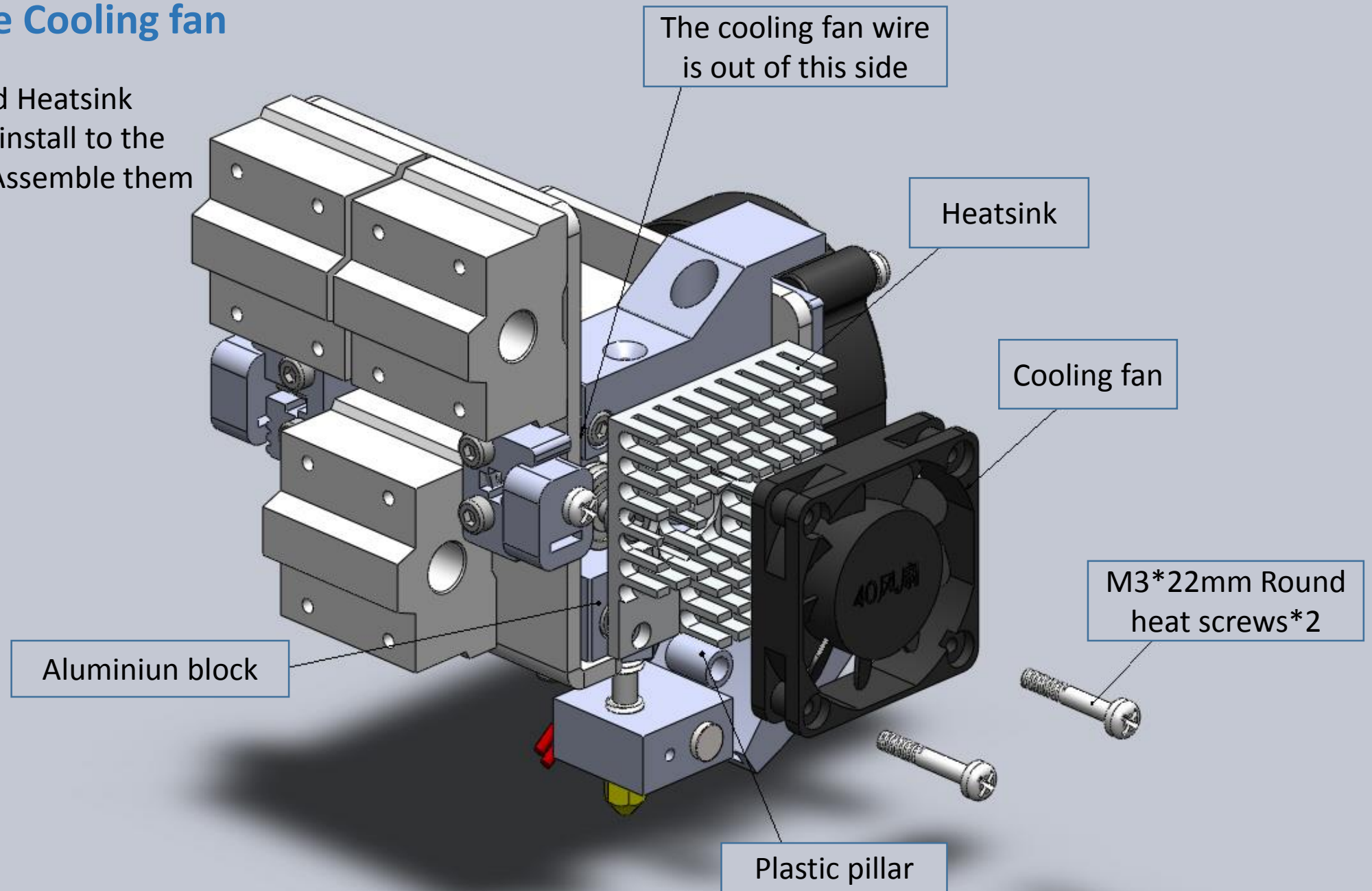M3*20mm Round head Screws & nuts

Sliding rod Restriction*2
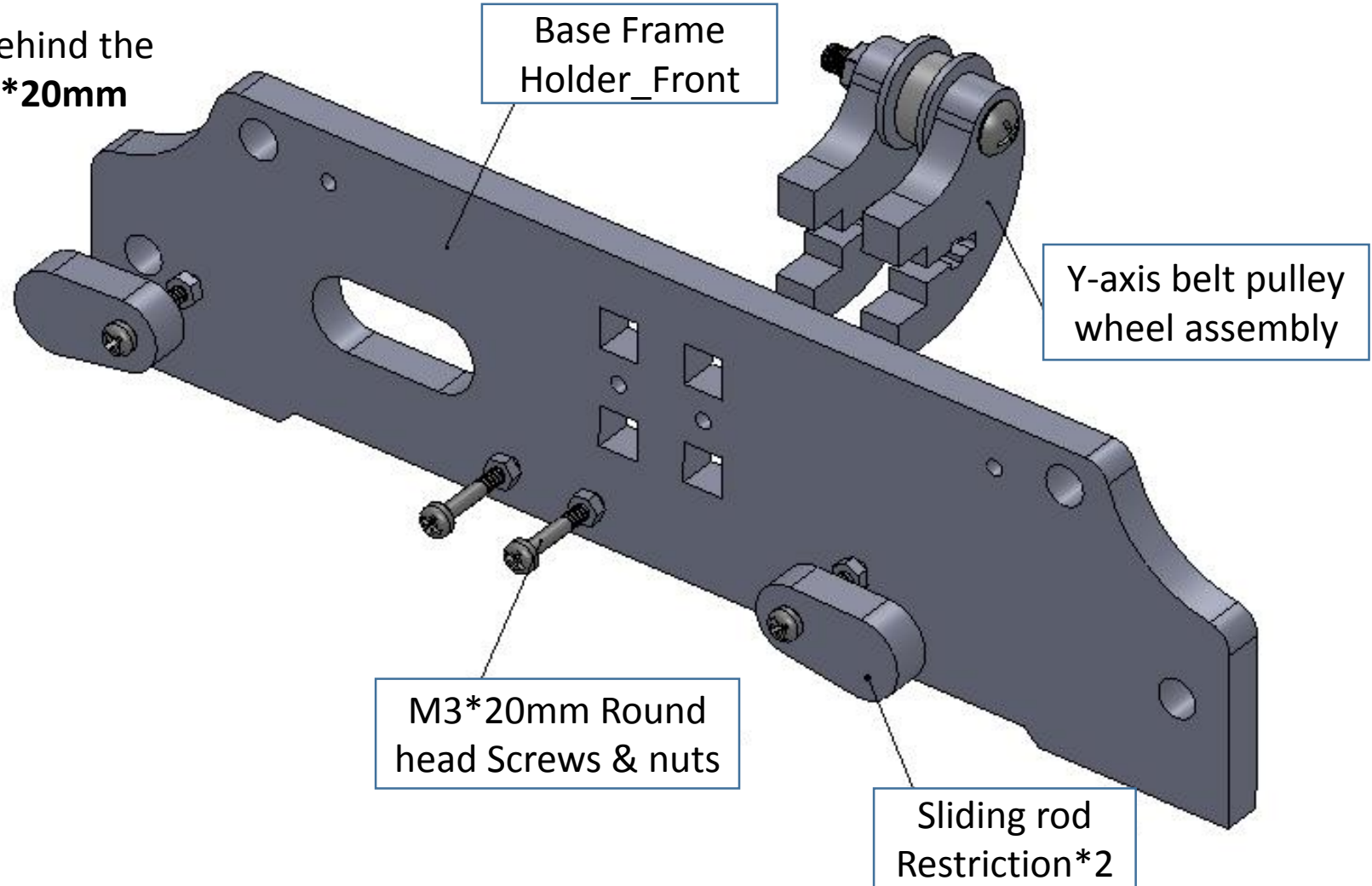
Step 5 Assemble Z-axis motor

◆ Put two **Z-axis motor support(side)** in two sides of the motor, Cover the **Z-axis motor support(top)** on the top, locking with **M3*20mm Round head screws & nuts**.

◆ The cable of Z-axis motor is back of the Z-axis motor support. Locking **Z-axis motor** with four **M3*10mm Inner hexagon screws**.

◆ Put the **coupling** on the motor, locking the jackscrews.

◆ Another Z-axis motor is the same assembly.

coupling

Z-axis motor support(top)

M3*20mm Round head screws

M3*10mm Inner hexagon screws

Z-axis motor support(side)

Z-axis motor

Step 6 Assemble Cooling fan

◆ Put Cooling fan and Heatsink together and then install to the Aluminiun block . Assemble them as picture .

The cooling fan wire is out of this side

Heatsink

Cooling fan

M3*22mm Round heat screws*2

Aluminiun block

Plastic pillar

Step 7 Assemble Z-axis

◆ As the picture, Put the two **Z-axis motors assembly** on the left and right side of the **framework** , locking with three **M3*20mm screws & nuts**.
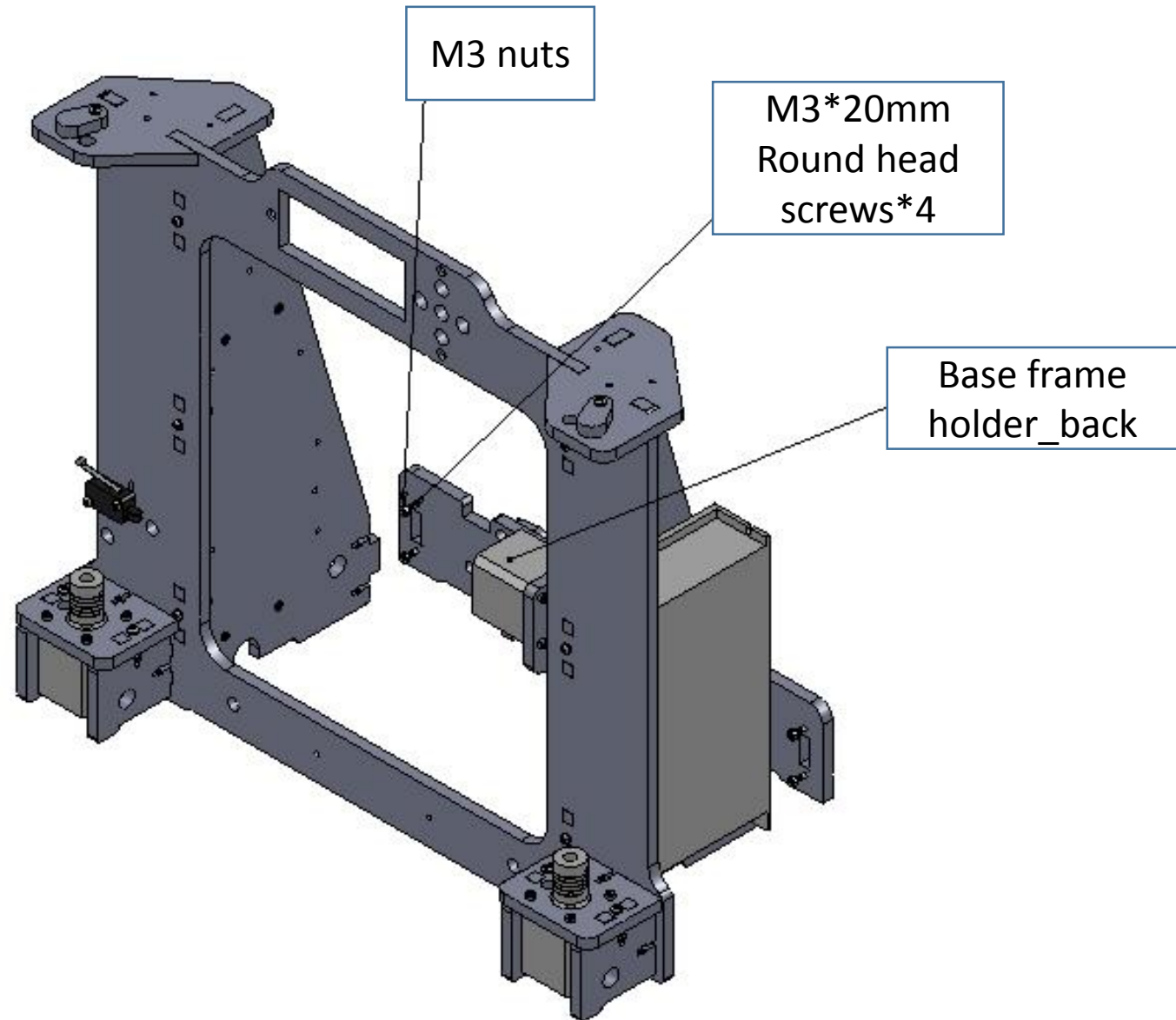
Framework

M3*20mm Round head screws

M3 nuts

Z-axis motor assembly
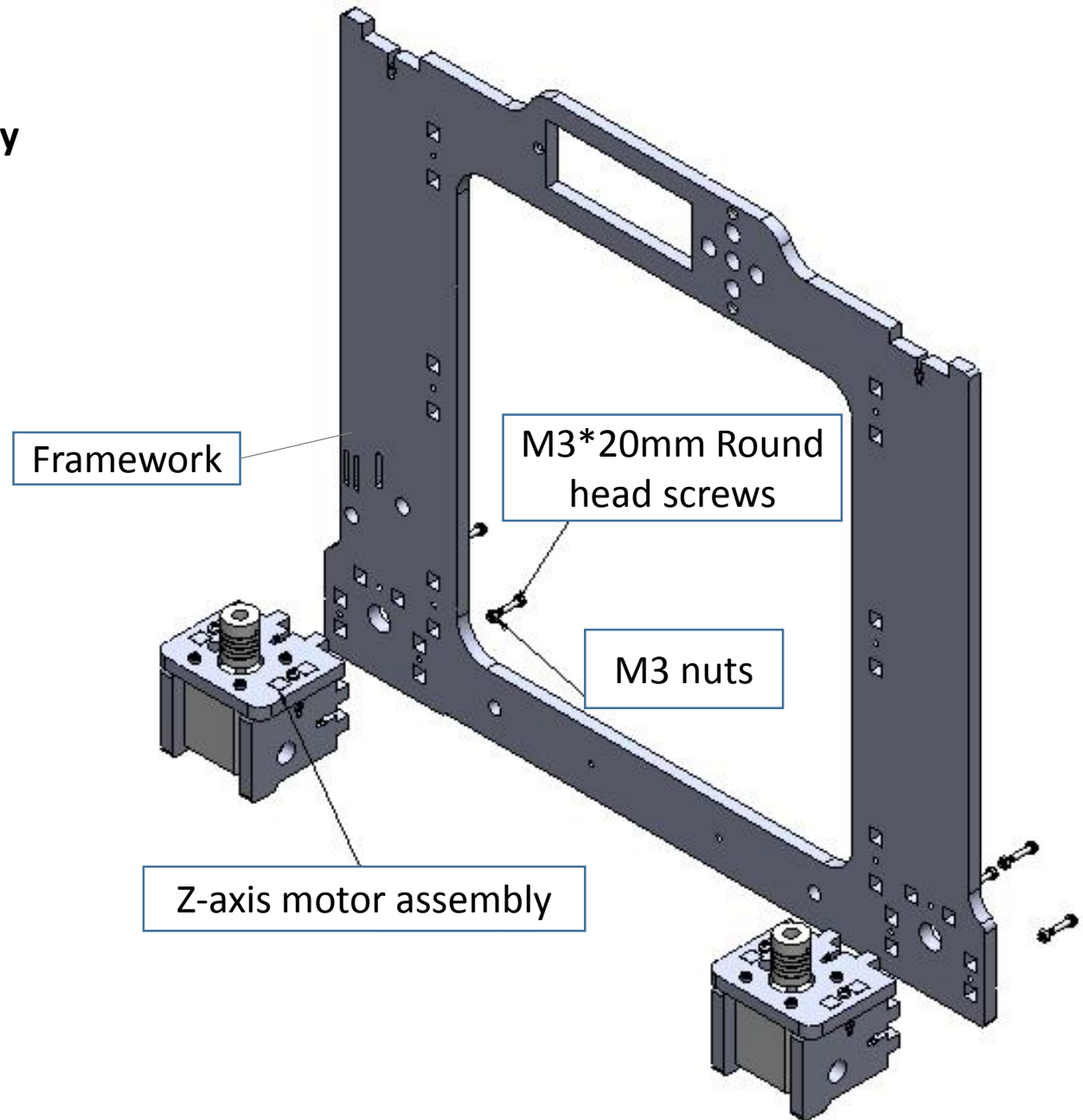
Step 8 Assemble Framework

◆ Put **Framework-middle** and **Framework-Right ,Framework-left** together as the picture. locking with Six **M3*20mm Round head screws & nuts**.

◆ Put two of **Frame holder (top)** on the top of the frameworks, locking with four **M3*20mm Round head screws & nuts**.

◆ Put two **sliding rod restriction** on the top of left and right sides. Locking with one **M3*20mm Round head screw & nut** each.

◆ Put the **Z-axis limit switch** on the left side of framework(middle). Locking with two **M3*20mm Round head screws and nuts**.

◆ Put **Power supply** on the right of framework-right, locking with three **M3*14mm Flat_head screws and nuts.**

Sliding rod restriction

M3*30mm Flat_head screw (lock control board)

Framework holder(top)

Z-axis limit switch

M3*14mm Flat_head screw (lock power supply)

Framework-right

Framework-left

Framework-middle

Power supply

M3*20mm Round head screw & nut
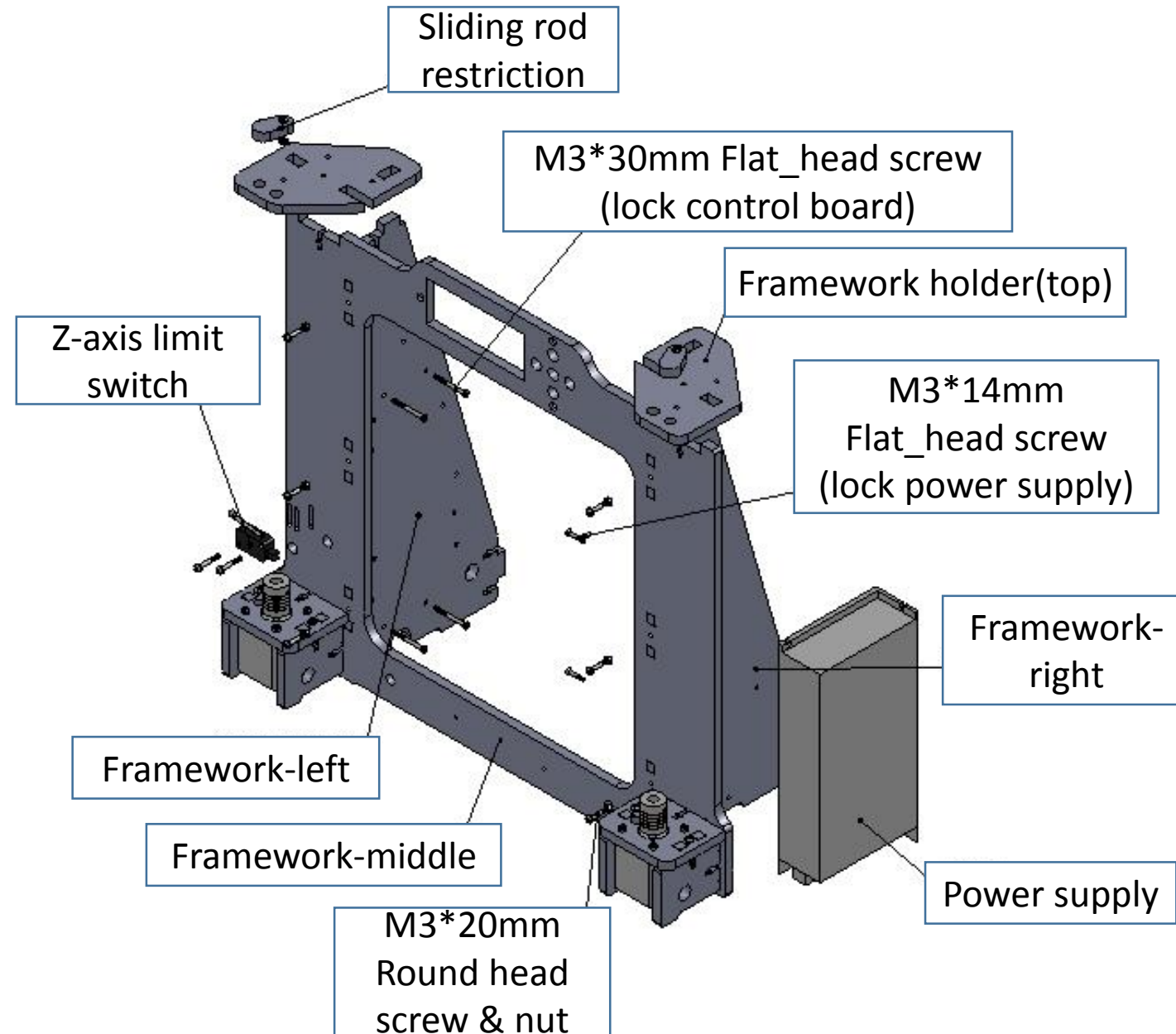
Step 9 Install Base frame holder_Back

◆ Put the Base frame holder_back with Framework_Right & Left together, locking with four M3*20mm Round head screw

M3 nuts

M3*20mm Round head screws*4

Base frame holder_back

Step 10 Install LCD display

◆ Put the **LCD display** on the top of the framework , locking with three **M3*30mm flat_head screws &nuts**

M3 nuts

LCD display assembly

M3*30mm Flat head screws
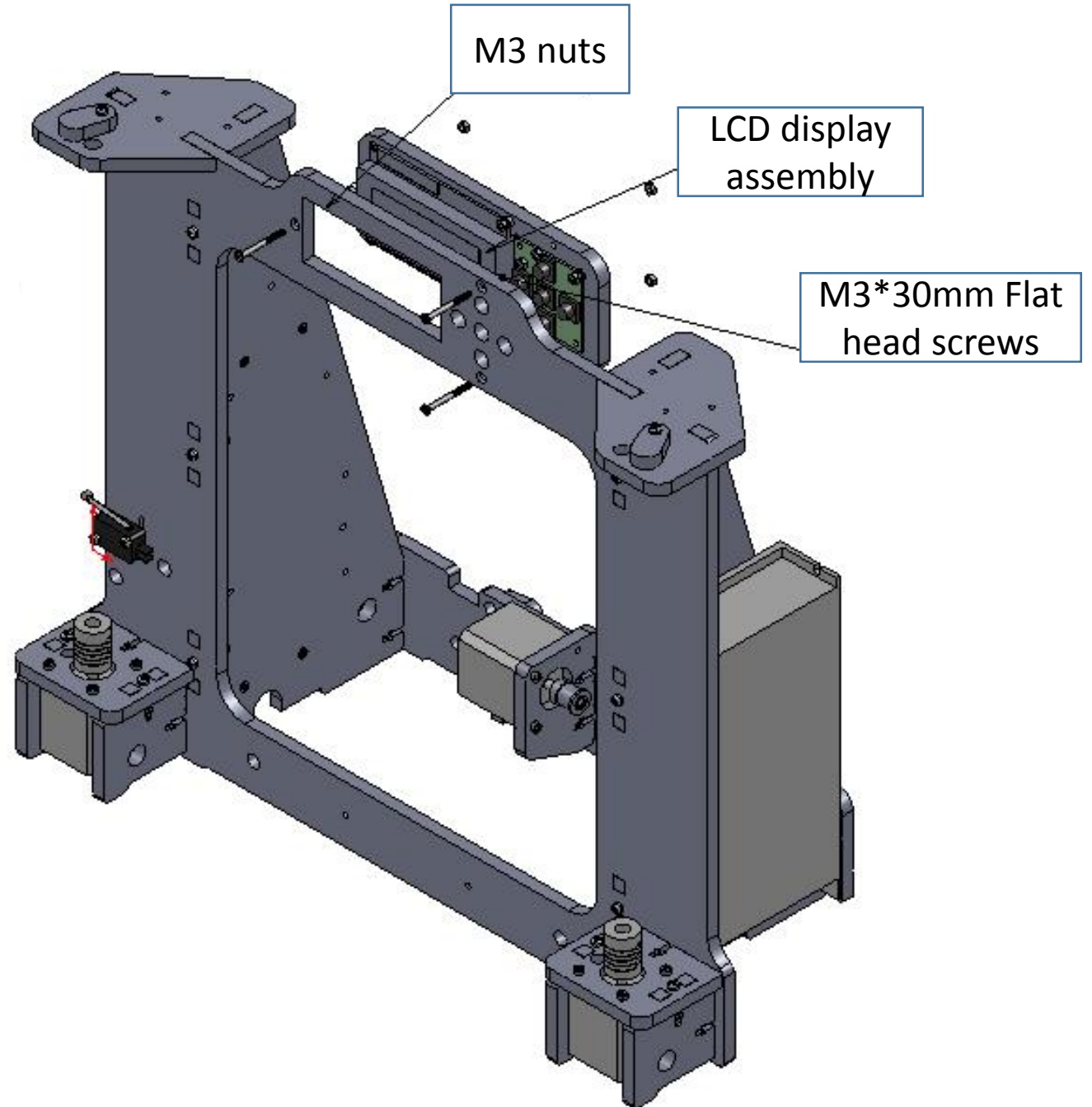
Step 11 Install Base Frame Holder_Front

◆ Through the **Frame Holder_Front** & **Back** by two **M8*400mm screw arbors**, locking with twelve **M8 Nuts & cushion ring**.

M8*400mm screw arbors

M8 nuts

Base frame holder_front

M8 nuts & cushion ring
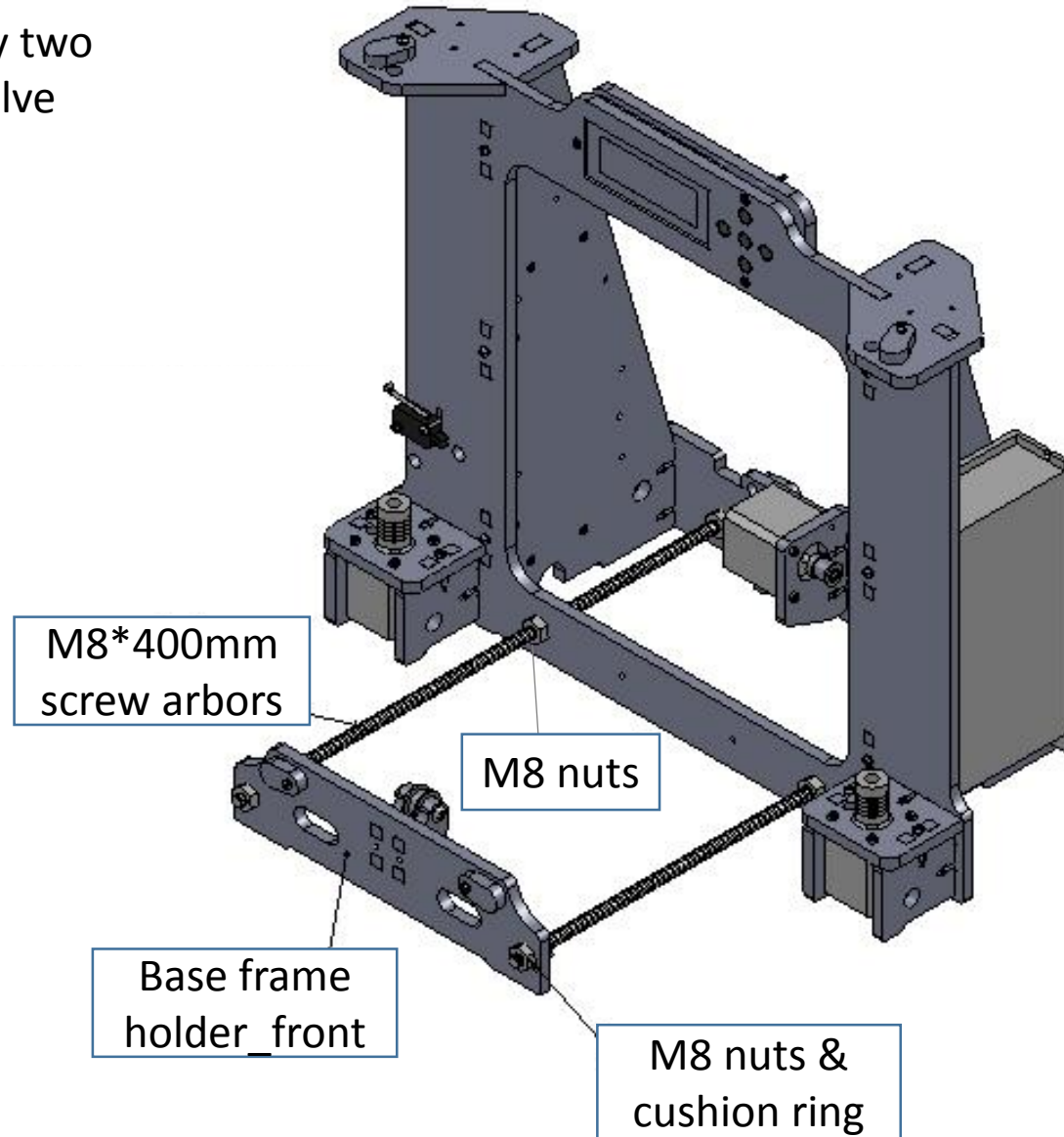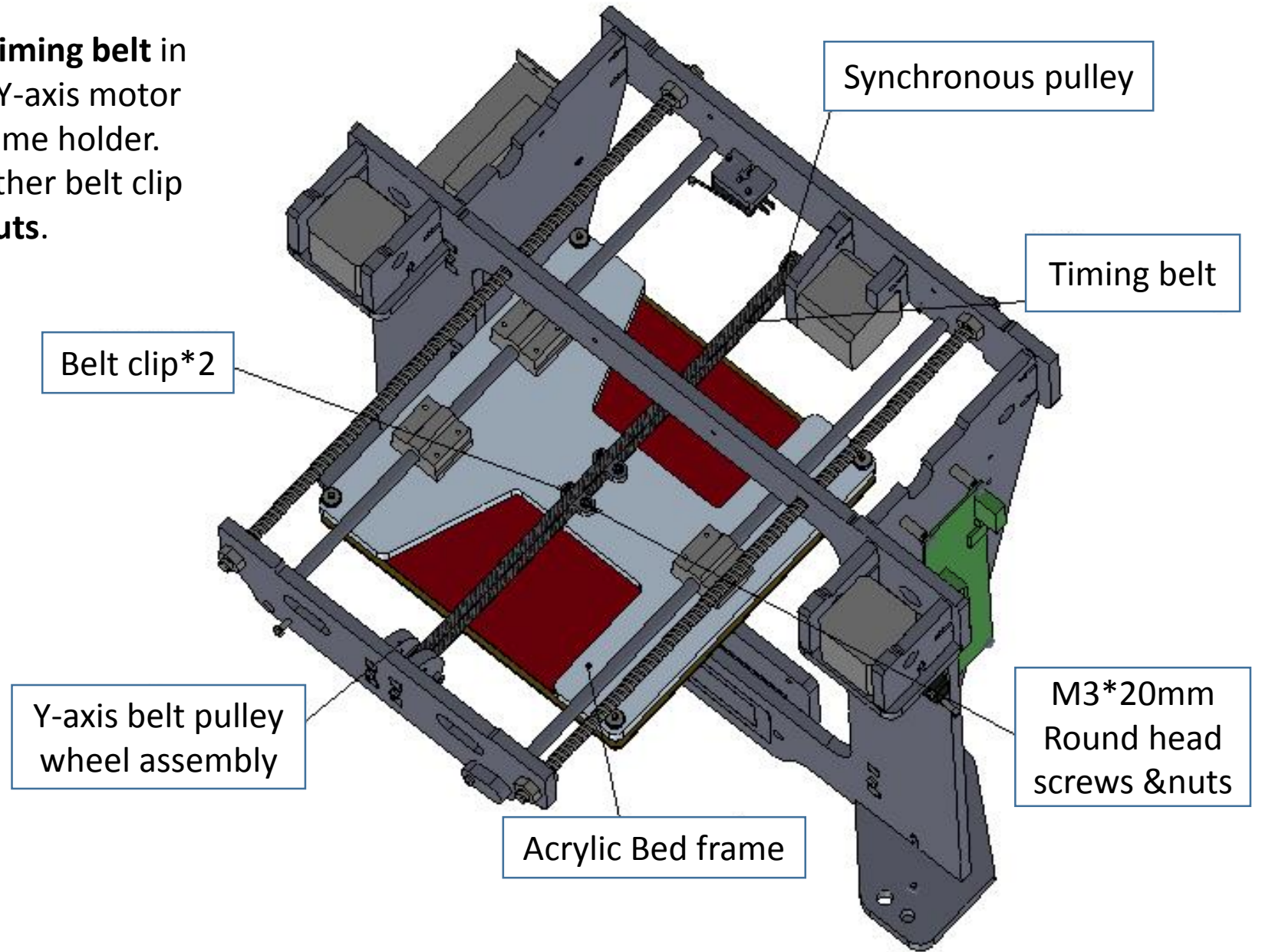
Step 12 Instal Platform Assembly

◆ As the picture , through the platform on the base by two of **M8*380mm Sliding rod**. Fix both end by Sliding rod restriction

Attention: Put the 2pcs bearing one the hotbed are on the right side , and put the hotbed wires on back side .

Platform assembly

M8*380mm sliding rod*2

Sliding rod Restriction

The 2pcs bearing are on this side
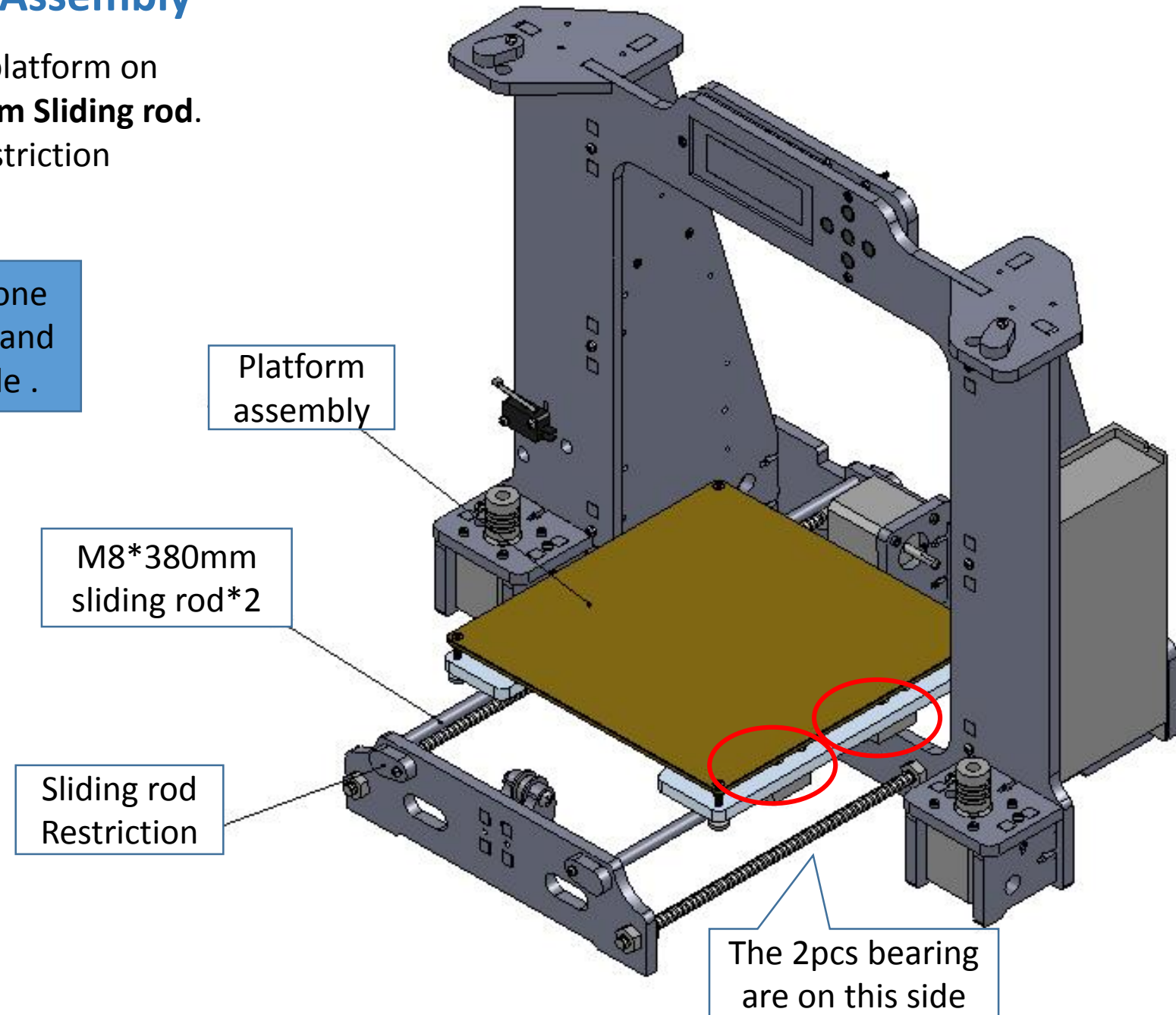
Step 13 Instal Y-axis Timing belt

◆ As the picture, Lock one end of the **timing belt** in **belt clip** , the other end through the Y-axis motor and belt pulley wheel on the base frame holder. Then tense the belt and lock in the other belt clip with **M3*20 Round head screws & nuts**.

Synchronous pulley

Timing belt

Belt clip*2

Y-axis belt pulley wheel assembly

M3*20mm Round head screws &nuts

Acrylic Bed frame

Step 14 Instal X-axis Extruder Assembly

◆ Put **X-axis motor** on **X-axis motor mount**. Locking with three **M3*10mm Inner hexagon screws.**

◆ Through the **X-axis motor mount** & **pulley mount** by **M8*330mm sliding rod** & **M8*300 screw arbor**. As picture

◆ Limit the top of **sliding rod** with **sliding rod restriction**, connect the bottom of **screw arbors** with **couplings** , locking jackscrew in coupling.

Framework holder(top)

M8*330mm Sliding rod

Sliding rod restriction

M8*300mm screw arbor

X-axis Motor mount

X-axis Pulley mount

Coupling
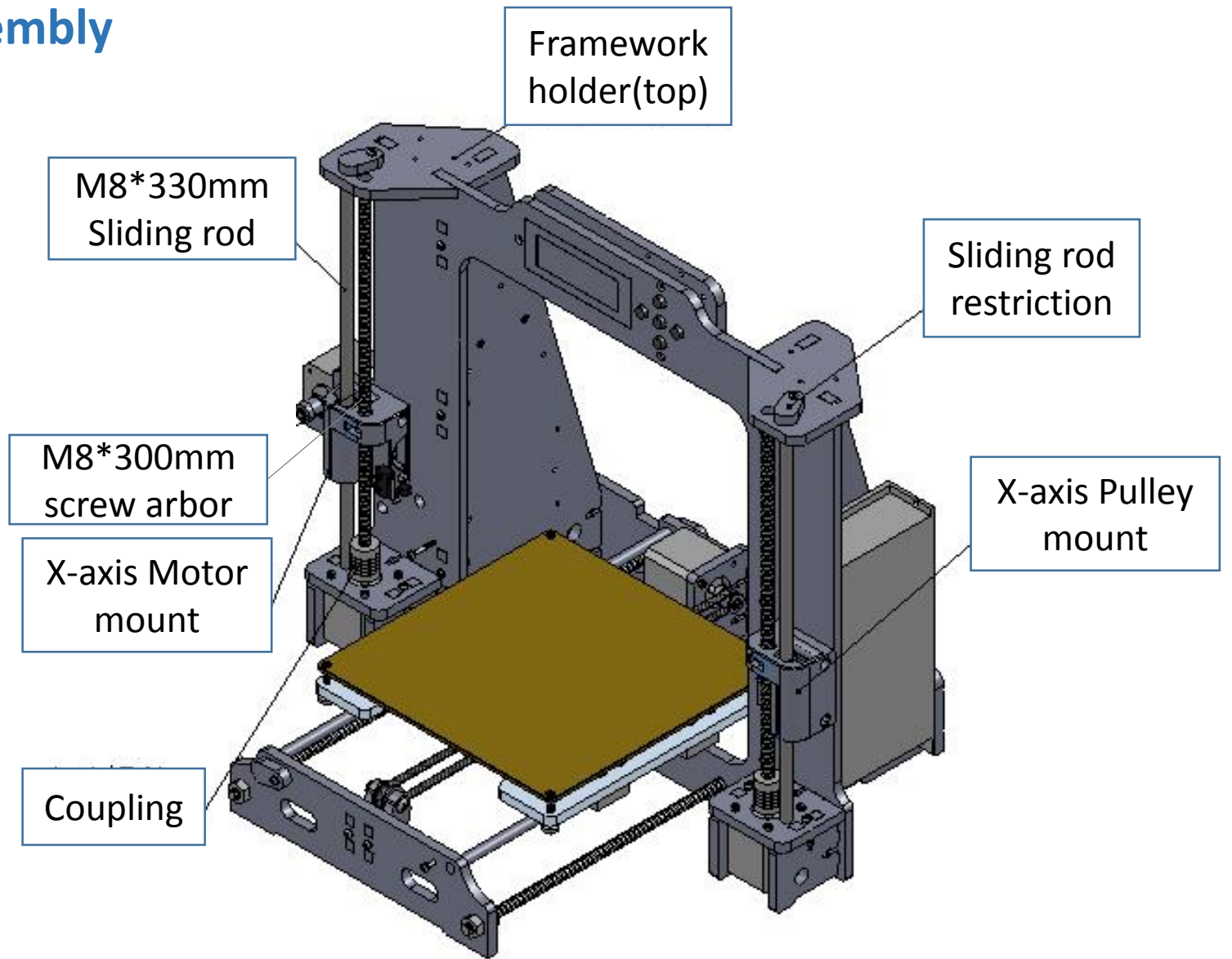
Step 15 Assemble X-axis

◆ Through the X-axis motor mount mount& pulley mount and **Extruder assembly** using two **M8*443mm sliding rods**, as the picture.

◆ Put **X-axis Motor** on **X-axis motor mount**, locking with three **M3*10mm inner hexagon screws**

◆ Put **X-axis limit switch** on the X-axis motor mount, locking with two **M2.5*10mm screws** (small black screw)

X-axis motor mount

Extruder assembly

X-axis Motor

M8*443mm sliding rod

X-axis limit switch
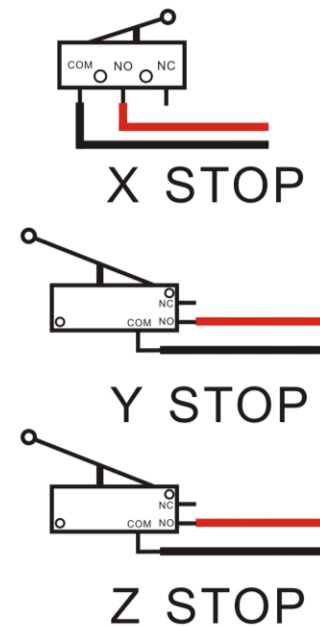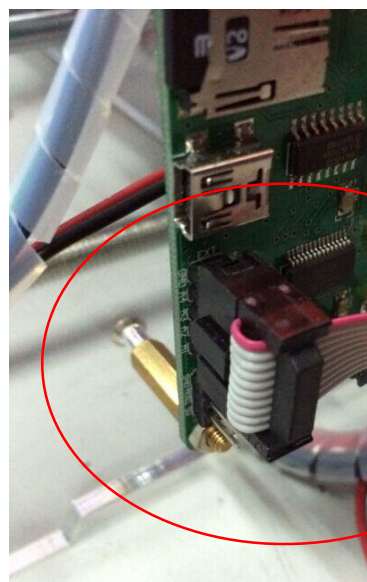
X-axis pulley mount
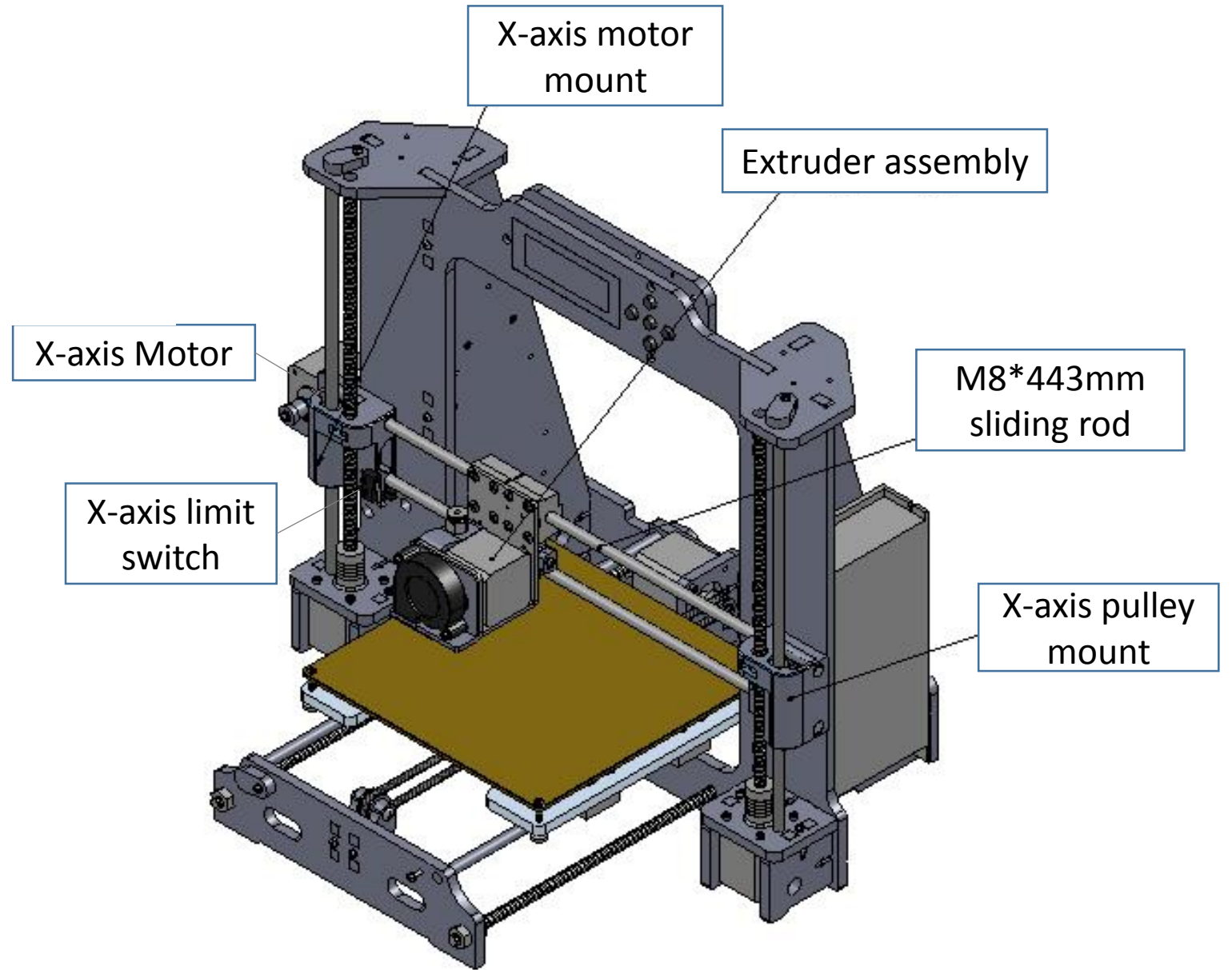
Step 16 Instal X-axis Timing Belt

◆ Install **Belt clip 1** as picture , locking with **M3*14mm Flat head screws**

◆ Put X-axis timing belt between Belt clip 1 and Belt clip 2, locking with **M3*16mm Round head screws**

M3*14mm Flat_head screws

Belt clip 1

X-axis timing belt

M3*16mm Round head screws

Belt clip 2

M3 nut
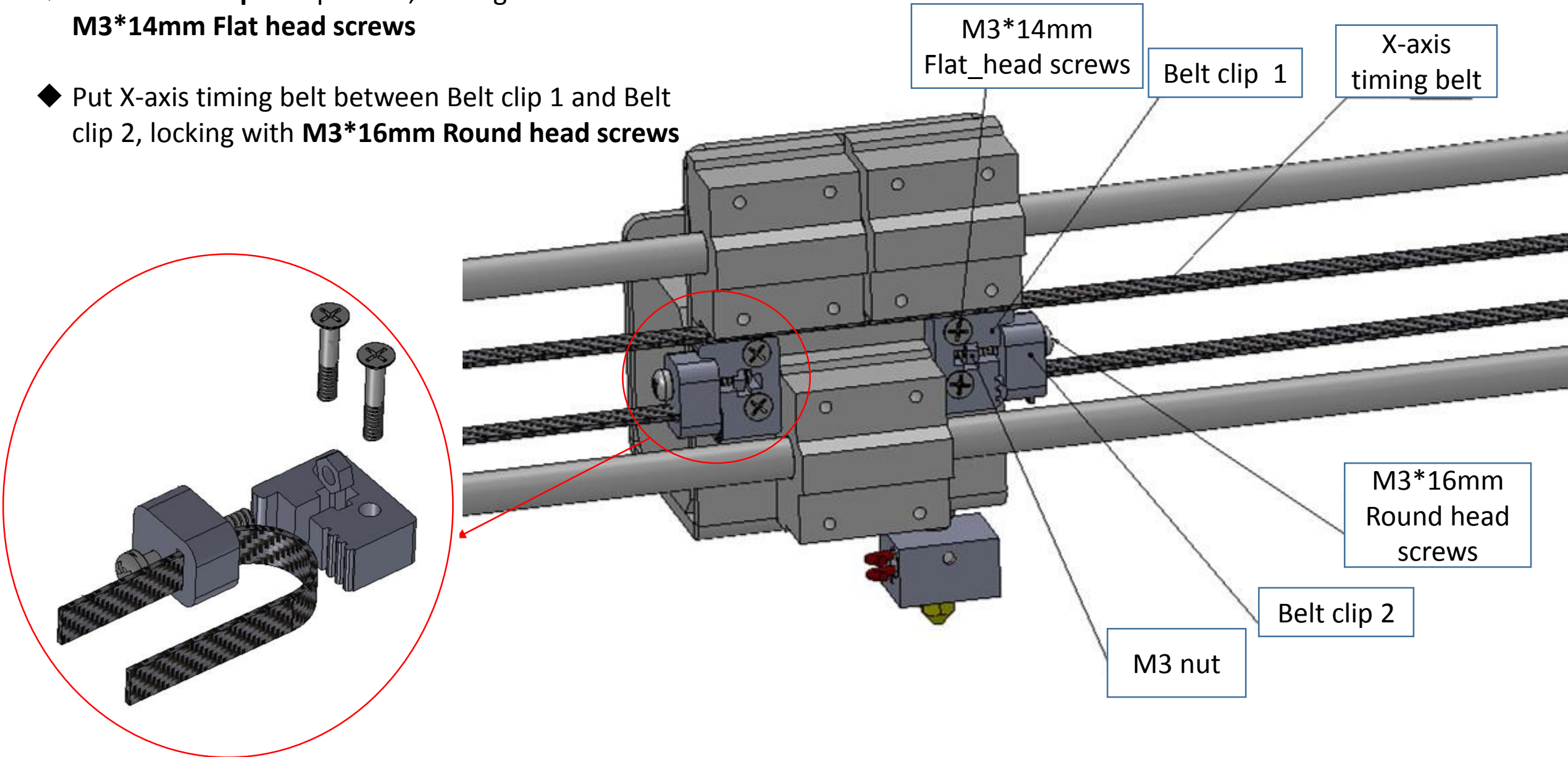
Step 17 Control Board Wiring Diagram

◆ The method of connecting wire is as picture

!NOTE!: The wires connected to POWER SUPPLY and HETBED must be AWG14 or thicker one.
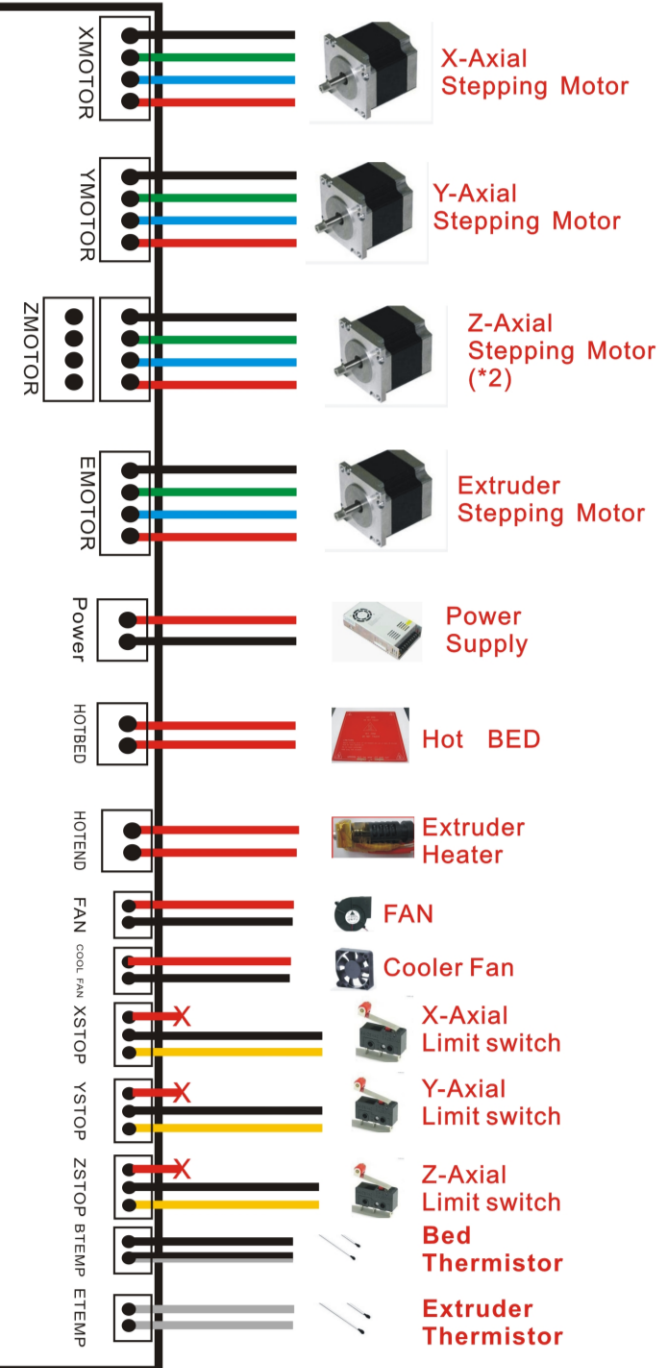

X STOP

Y STOP

Z STOP

Micro SD Card

USB Cable

LCD 2004+Keypad

XMOTOR — X-Axial Stepping Motor

YMOTOR — Y-Axial Stepping Motor

ZMOTOR — Z-Axial Stepping Motor (*2)

EMOTOR — Extruder Stepping Motor

Power — Power Supply

HOTBED — Hot BED

HOTEND — Extruder Heater

FAN — FAN

COOL FAN — Cooler Fan

XSTOP — X-Axial Limit switch

YSTOP — Y-Axial Limit switch

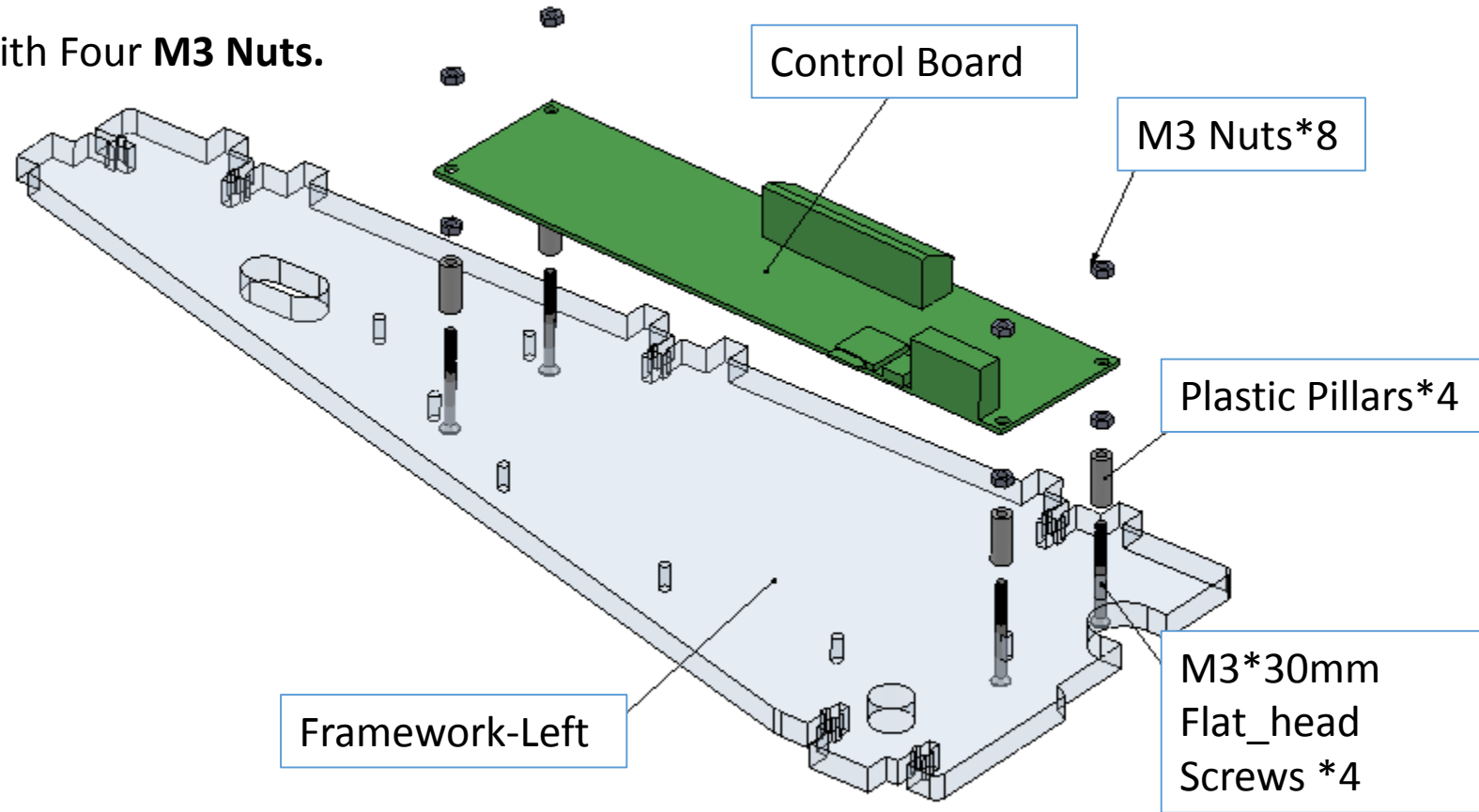ZSTOP — Z-Axial Limit switch

BTEMP — Bed Thermistor

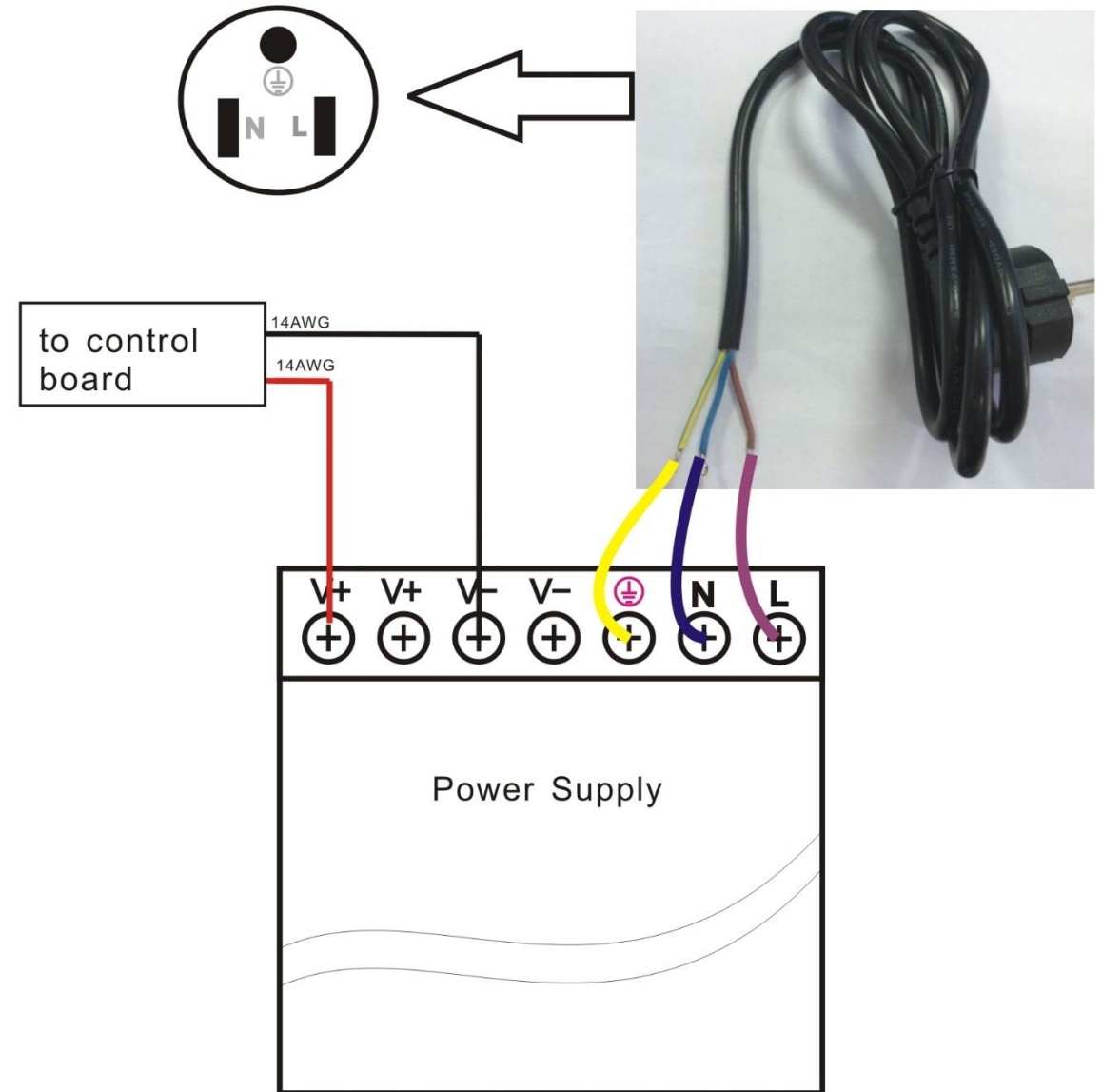ETEMP — Extruder Thermistor

Step 18 Install PCBA Control Board

◆ Put the four **Plastic Pillars** on the left of **Framework-left**,
   locking with four **M3*30mm screws** and four **M3 Nuts**

◆ Install **Control Board** as picture **,** locking with Four **M3 Nuts.**

Control Board

M3 Nuts*8

Plastic Pillars*4

M3*30mm
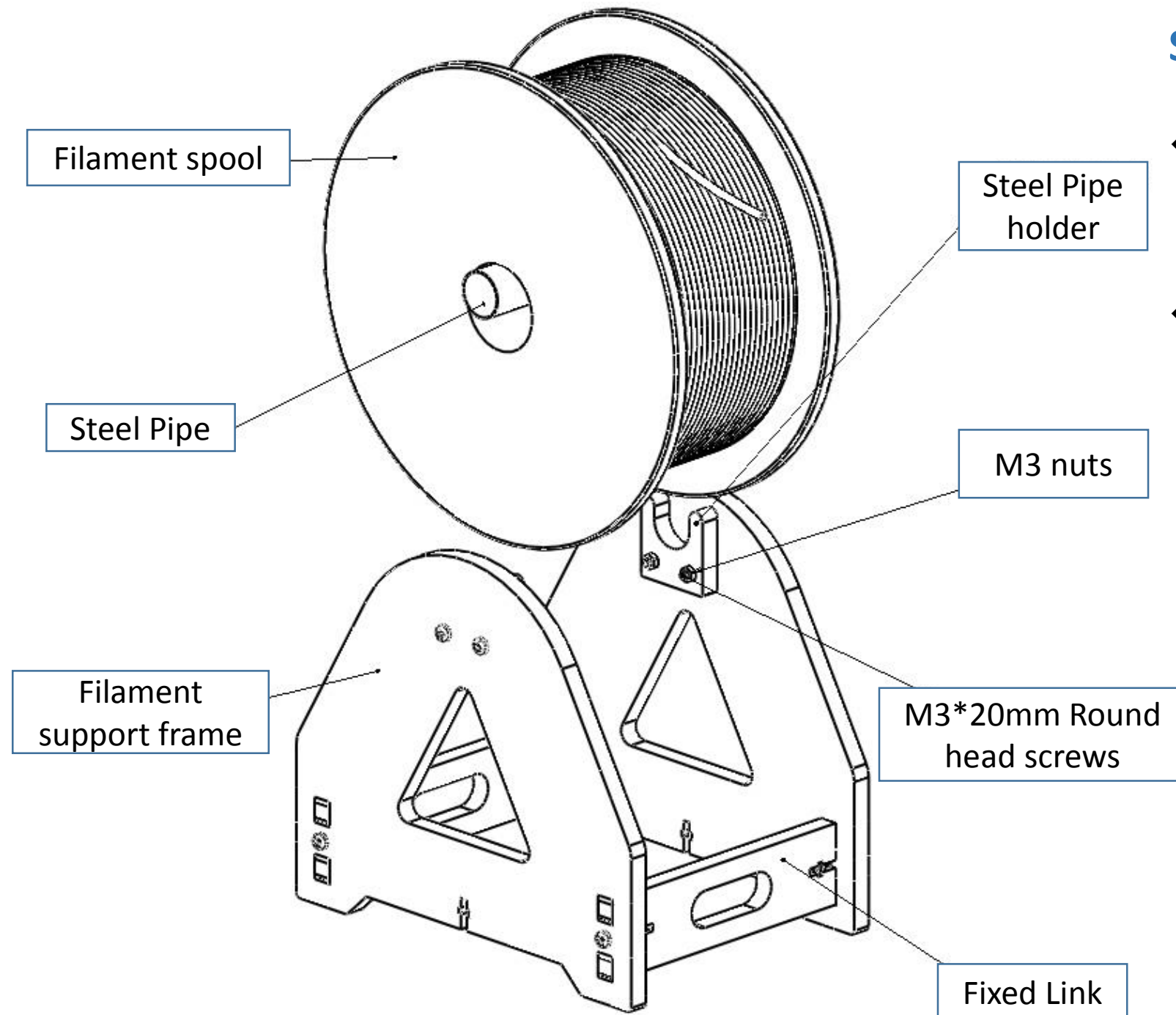Flat_head
Screws *4

Framework-Left

Step 19 AC Power Connector Wiring Diagram

◆ Connect Power cable as the picture (Right)

Note: There are different voltages in different country. Please select the appropriate voltage by switch before power on. As the picture below.


110/220V is selected by switch. Before power on please check input voltage avoiding damage.

110V → ← 220V

CAUTION !

to control board

14AWG
14AWG

V+ V+ V− V− ⏚ N L

Power Supply

Step 20 Assemble Filament Feeder

Filament spool

Steel Pipe

Steel Pipe holder

M3 nuts

M3*20mm Round head screws

Filament support frame

Fixed Link

◆   Separately put two **Steel Pipe holder** on two **Filament support frame**, locking with four **M3*20mm Round head screws.**

◆   Connect the two **Filament support frames** with two **Fixed links** , locking with four **M3*20mm Round head screws & nuts**

Installation Finished

Front View
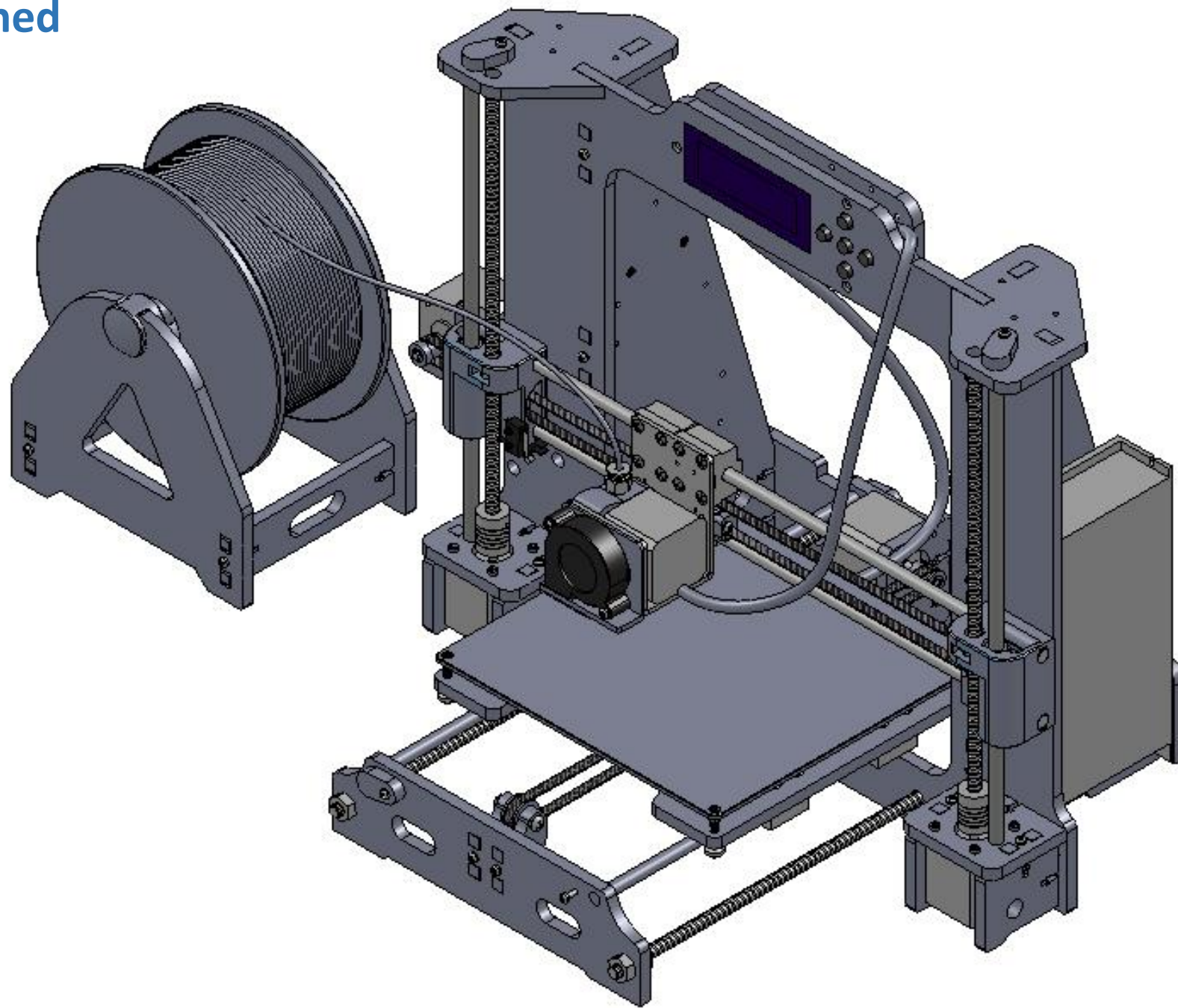
Installation Finished

Back View