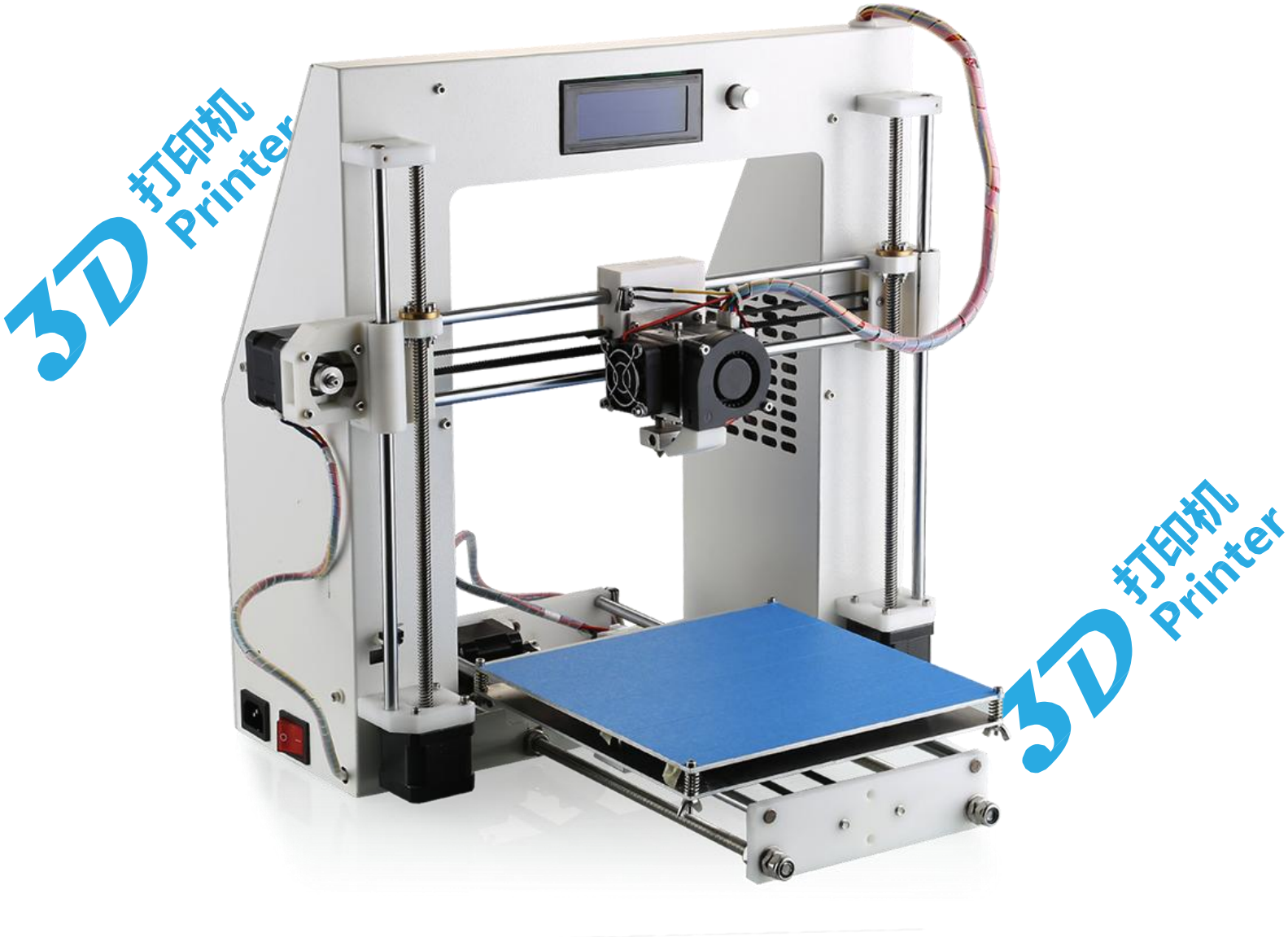
A-3 Assembly Diagram



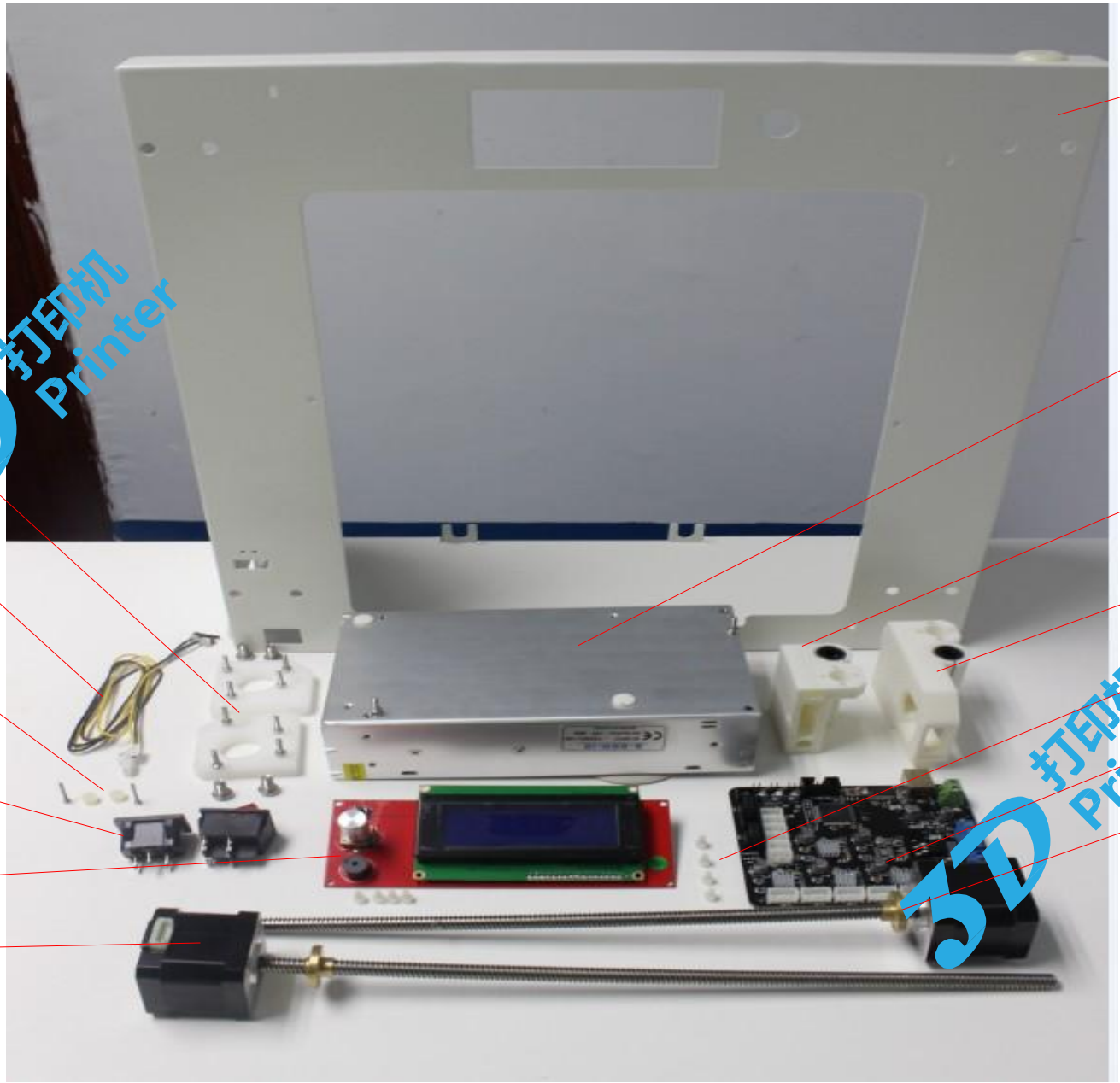
Contents

Chapter 3 Transmission mechanism on X-axis

Chapter 4 Extrusion mechanism

Chapter 5 Control circuit and frame installation

Chapter 1 Control system and transmission mechanism on Z-axis



Main body

Power supply，
2*M3*8 screw

X-axis passive base

X-axis motor base

8*M3*10 plastic screw

Mainboard

2*T-shaped nuts
(should be screwed
out when installing)

2*Z-axis motor fixing plate， 8*
M3*12 screw, 4*M6*10 cup
head screw

Z axis Limit switch

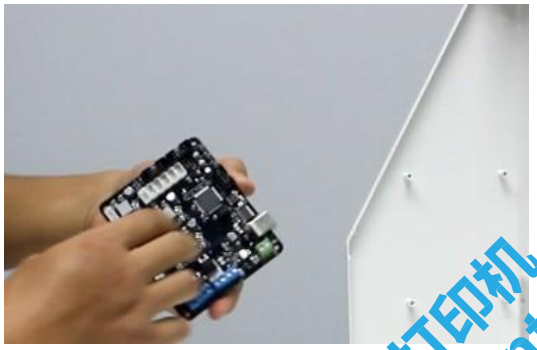
2*5mm abs pillar，
2*M2*16 screw

Socket and power switch
(installed before delivery)

Display screen

2*Lead screw
motor

Installation of Mainboard



Get the mainboard and main body ready

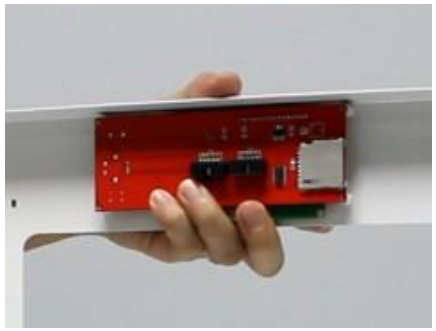
Align the holes

Screw the mainboard with the plastic screws by allen wrench(4* M3*10 screw)

Complete

Installation of LCD Display

Get the lcd display ready



Align the holes and rubber mat

Screw the lcd display with the plastic screws by allen wrench(4* M3*10 screw)

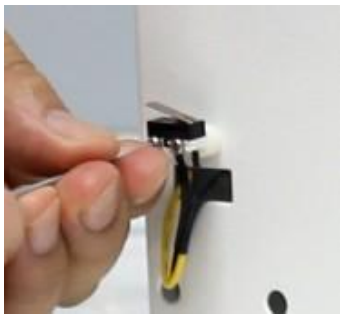
Complete

Installation of Z-axis limit switch

Get the limit switch ready

Put the cord through the main body

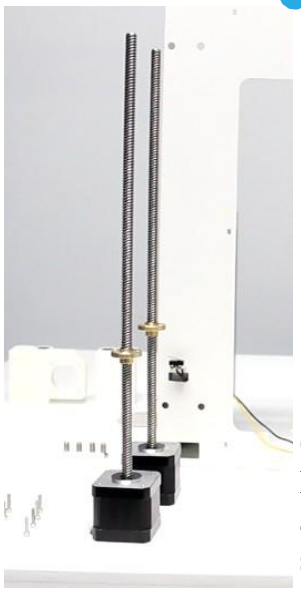
Put the screw M2*16-2pcs through the limit switch and sheathe the 5mm shoot-through column



Use a socket head wrench to tighten the screws

Complete

Installation of Z-axis electric motor



Get the Z-axis lead screw motor and motor fixing seat ready

Use a socket head wrench to tighten the screws: M3*12-8 pcs

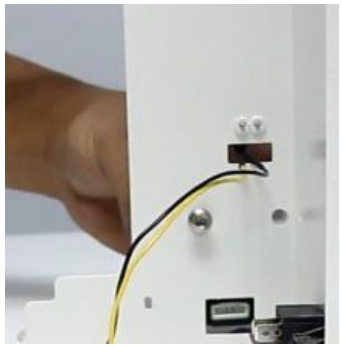
The threaded hole of M6 should align with the wiring duct of the lead screw motor

Complete

Z-axis Installation

Get two lead screw motors ready

Align the hole site (same handling for left side)

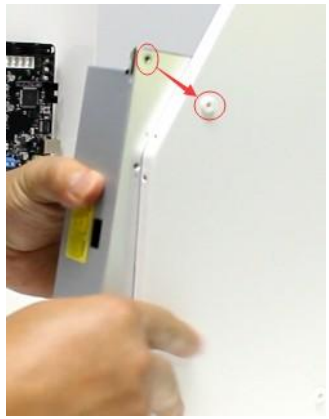


Use a socket head wrench to tighten the screws: M6*10-4 pcs(same handling for left side)

Complete

Power Supply Installation

Get the power supply ready



Align the hole site

Use a socket head wrench to tighten the screws: M3*8-2pcs

Complete

Installation of T-shaped Nuts to the X-axis motor fixing base


Get the T-shaped nuts and X-axis motor fixing seat ready

Align the holes


Use a socket head wrench to tighten the screws 3*M3*16 and 1*M3*10 screw

Complete

Installation of T-shaped nuts to X-axis motor passive base

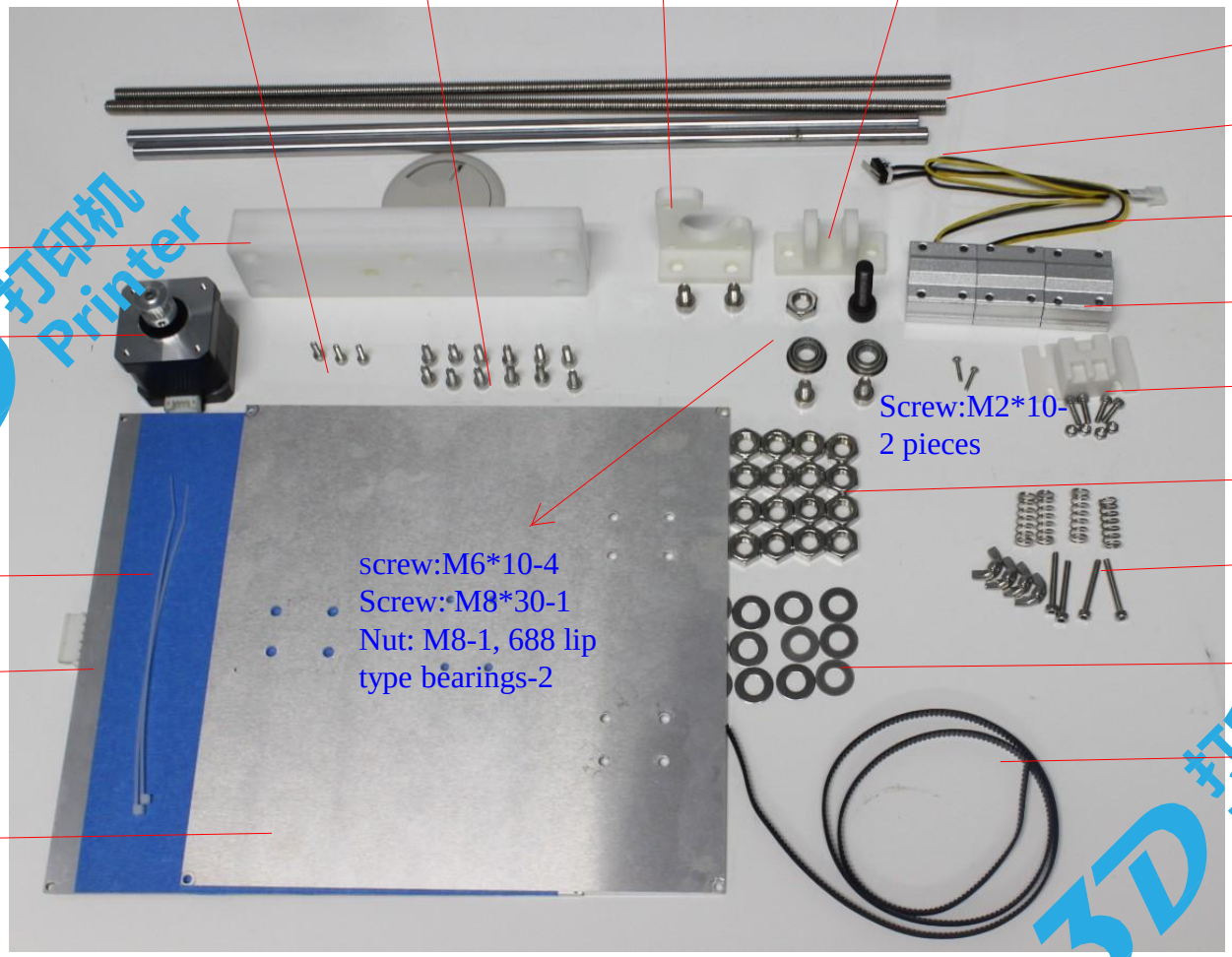

Get the T-shaped nuts and X-axis motor driven seat ready

Align the hole


Use a socket head wrench to tighten the screws 3*M3*16 and 1* M3*10.

Complete

Chapter 2 Transmission Mechanism on Y-axis


Screw: M3*12-3pcs
Screw: M4*8-12pcs
Y-axis motor fixing seat
688 lip type bearings fixing seat
Screw: M8*410-2 pcs
Φ8*380-2 pieces
Y-axis limit switch
Box-type bearings: 3pcs
Y-axis belt clip， screw: M3*10-4 pieces, nut: M3-4 pieces
Nut:M8-16 pieces
Spring-4 pieces， butterfly nuts-4 pieces
Screw: M3*25-4 pieces
Spacer: M8-12 pieces
Synchronous belt
Y-axis supporting block-2 pieces
Y-axis electric motor
Ribbon-2 pieces
Aluminum substrate (posted with blue-strap colored paper, which cannot be torn off in assembly)
Aluminum sheet
Screw:M2*10-2 pieces
screw:M6*10-4
Screw:M8*30-1
Nut: M8-1, 688 lip type bearings-2

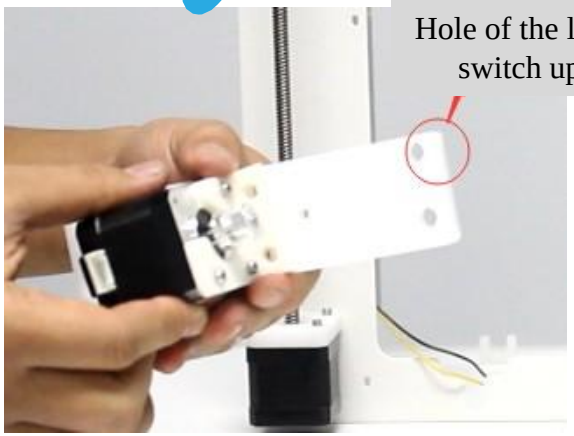
Installation of Y-axis motor and back supporting block

Get the Y-axis motor, motor seat and supporting block

Align the hole

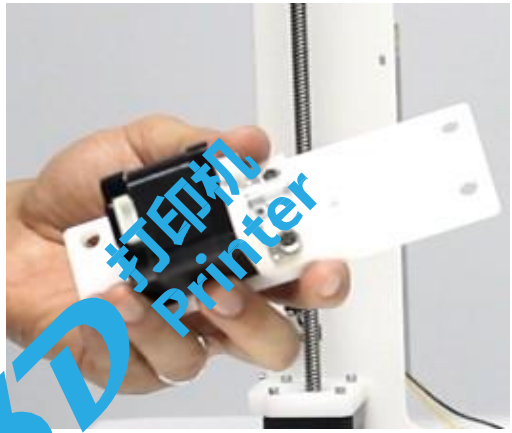
Use a socket head wrench to tighten the screws M3*12-3 pcs

Complete



Align the Y-axis motor with the hole of the supporting block

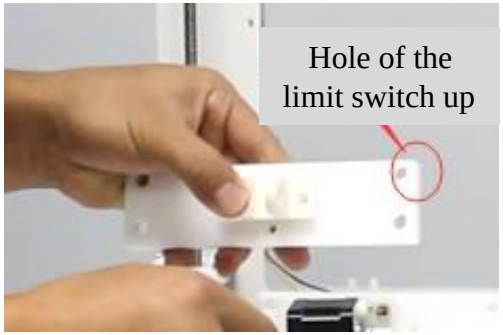
Use a socket head wrench to tighten the screws: M6*10-2pcs



Complete

Installation of 688 bearings with edge and front supporting block

Get the Y-axis supporting block, bearing fixing seat and 688 lip type bearings ready



Align the hole

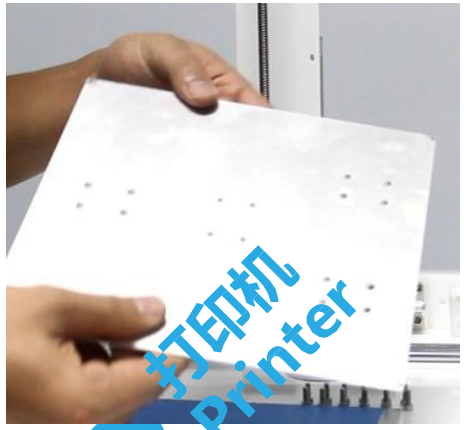
Use a socket head wrench to tighten the screws M6*10-2 pcs

Put the screw M8 through the bearing fixing seat

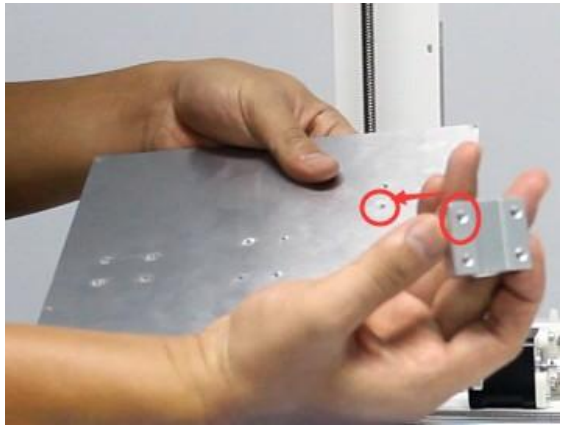
Put the 688 lip type bearing into the U-shaped slot (The lip side should be next to the side of the bearing fixing base.)

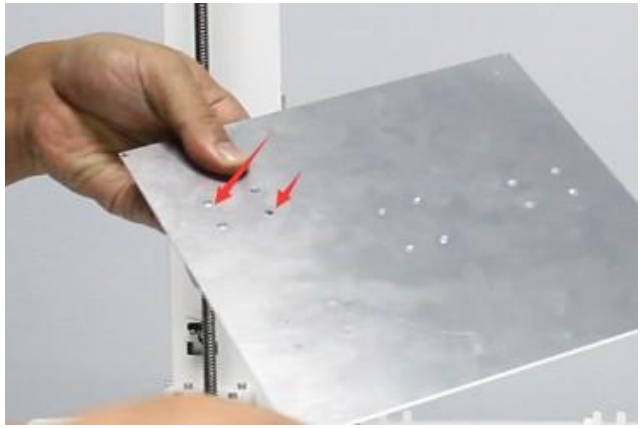
Tighten the cap, then complete .

Installation of box-type bearings

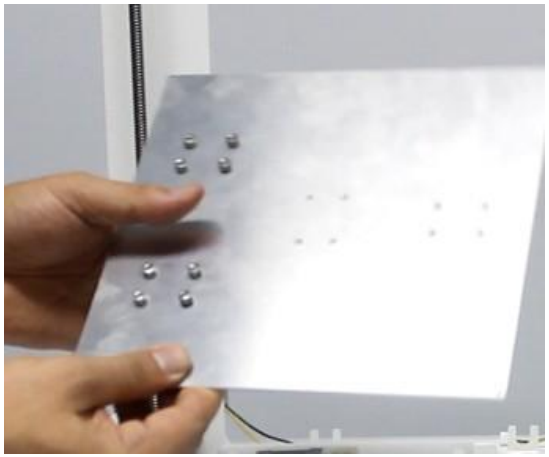


Get ready 3 box-type bearings
and 1 piece of aluminum sheet

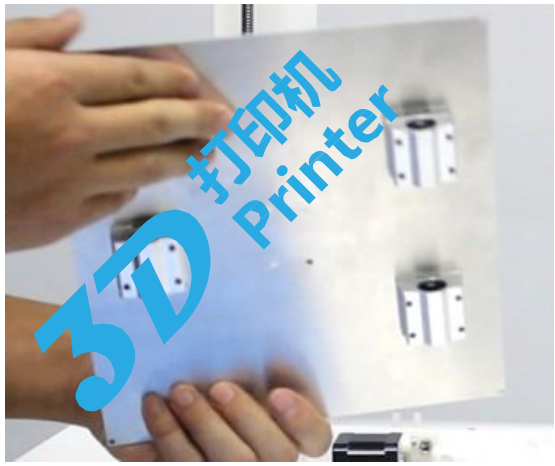




Align the front
and back holes



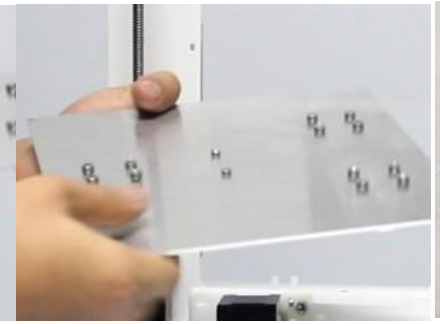
The other two are the same. Use a socket head wrench to tighten the screwsM4*8-12pcs(not too tight)



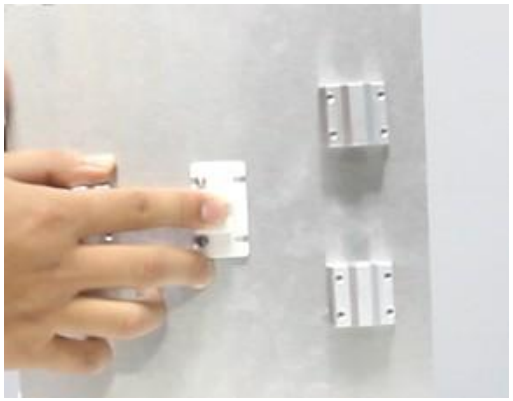
Complete

Installation of Y-axis Belt Clip

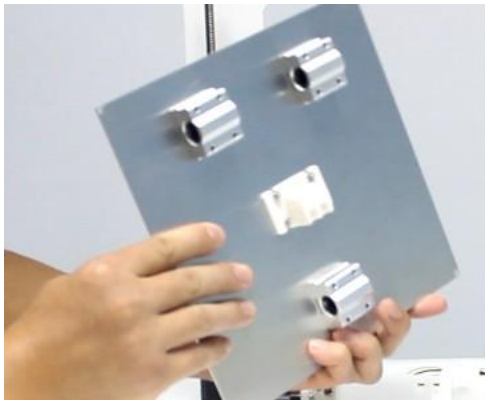
Y-axis belt clip, install the aluminum sheet of the box-type bearing well



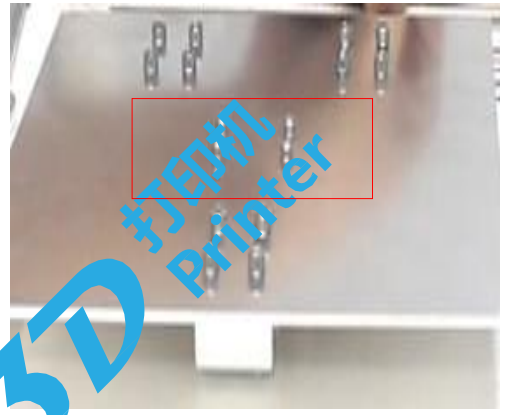
First put 2pcs of screws M3*10 through the aluminum sheet and put on the caps (don not tighten)



Put the U-shaped slot on one end of the Y-axis belt clip through the downside of the screw hole. The other side is the same.



Use the tools to clamp the screw cap and tighten it.



Complete

Installation of M8 Screw Rod

Get ready 2 screws of M8*410 and 16 screw caps of M8 (Only use 12 caps, the rest 4 will be tightened on the screw rod
Spacer: M8-12 pieces

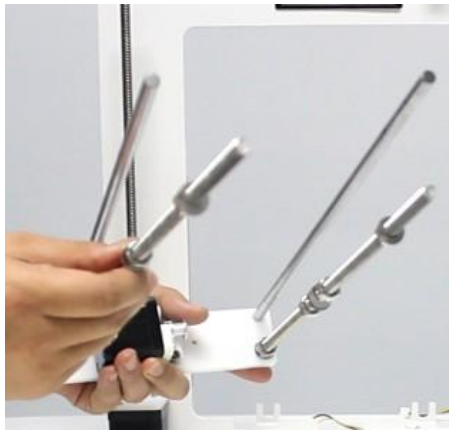
Install following the order: screw cap--spacer*2pcs—screw cap—screw cap--spacer*1pc；Reverse the screw rod, screw cap--spacer*1pc

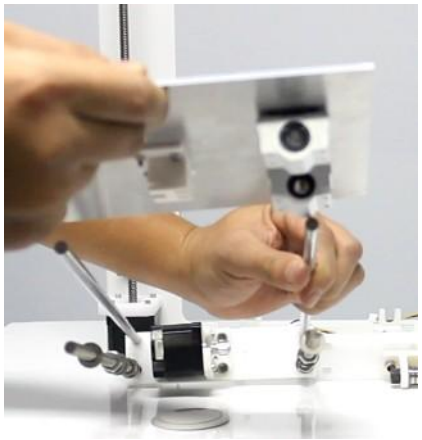
The other one screw rod is the same, These screw caps cannot be tightened.
Complete

Installation of aluminum sheets

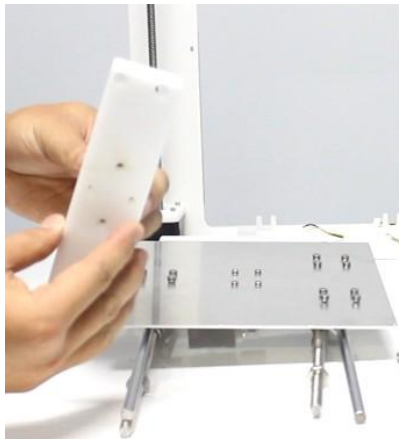
Get ready 2 slick rods Ø8*380-2pcs and the modules on pages 7, 8 10 and 11.

Install the slick rod into the Y-axis motor supporting block and the protruded part should align with the Y-axis motor supporting block.



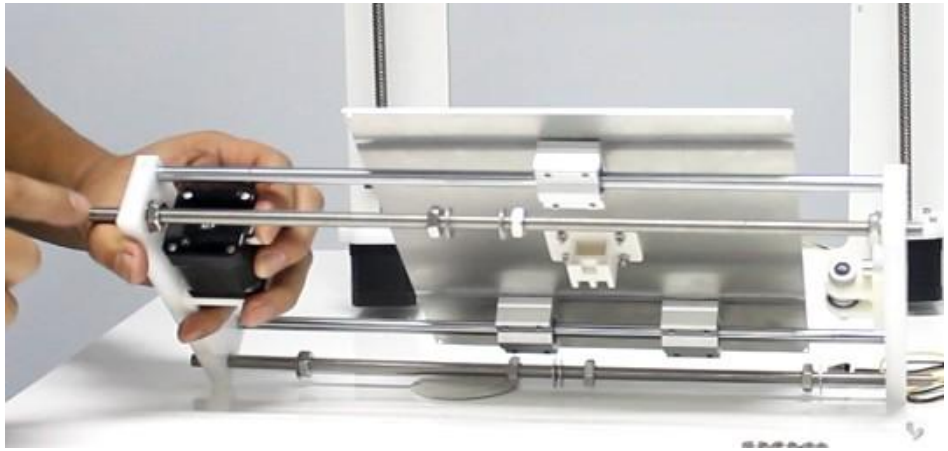


Install the screw rod from the downside of the slick rod and put the box-type bearings on the aluminum sheet through the slick rod.

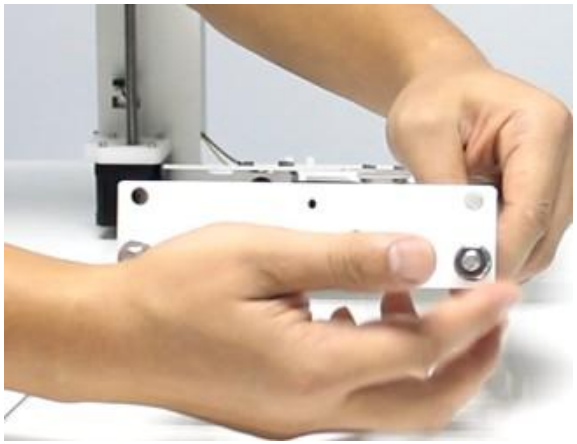


Install one end of the slick rod into the supporting block of the 688 lip type bearings and the slick rod should align with the surface of the supporting block.

Screw the cap outside to the supporting block. The other one is the same.



The protruded two ends should be equal in length. The other one is the same.



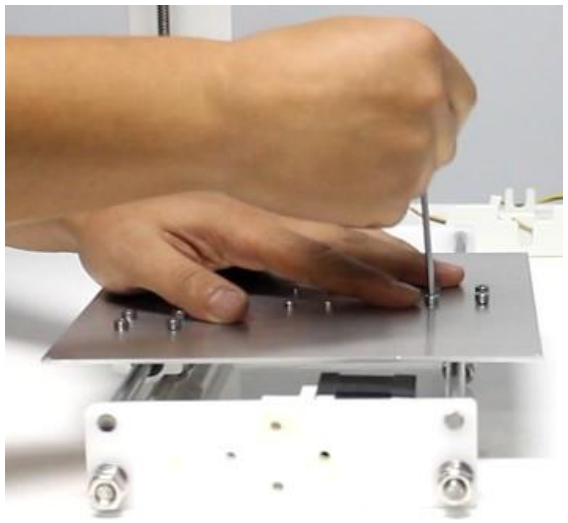
Fill up the cap on the protruded screw.

Use a solid wrench to tighten

After tightening the screw rod, screw one cap.

Use a solid wrench to tighten.

Slide the aluminum sheet with hand to see whether it moves smoothly.



Adjust the upper screws according to the tightness, but not too tight.

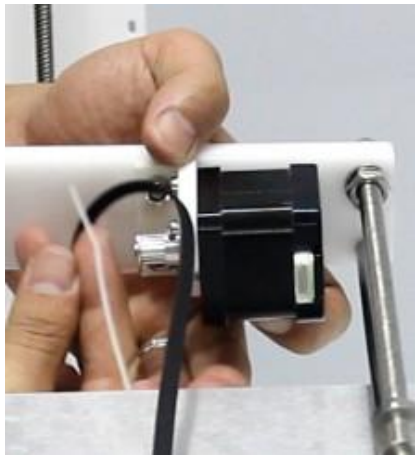
Complete

Installation of synchronous belt

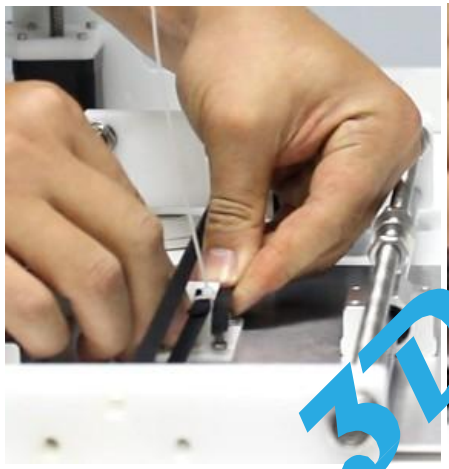
Get ready the synchronous belt

Turn over the aluminum sheet

Imbed the synchronous belt into the belt clip and turn back the synchronous belt and tighten it with a ribbon.



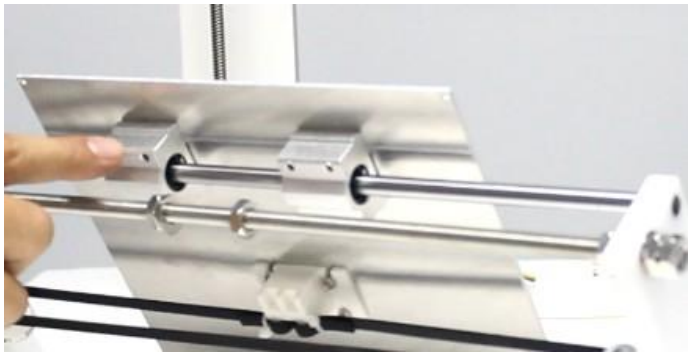
The side with synchronous teeth round passing the bearing and synchronous wheel



Imbed the other end into the belt clip and turn it back. Use the ribbon to tighten and tools to cut the redundant ribbon head. Complete

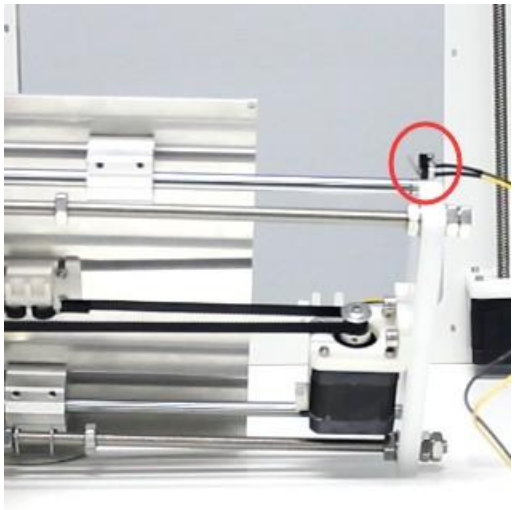
Installation of Y-axis limit switch

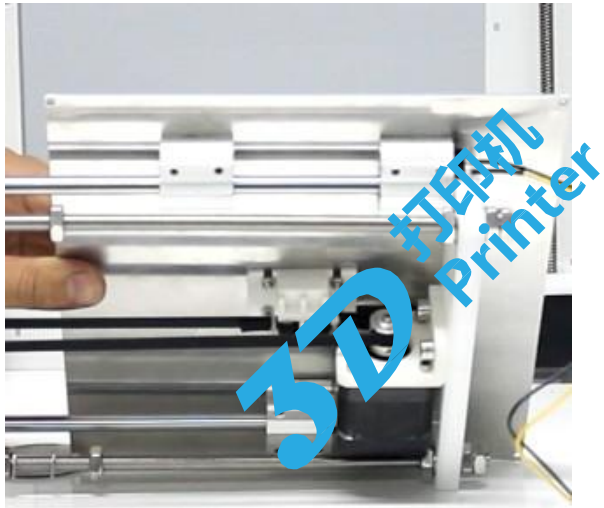
Get ready the Y-axis limit switch



Install the switch on the supporting block with two box-type bearings and next to the Y-axis motor

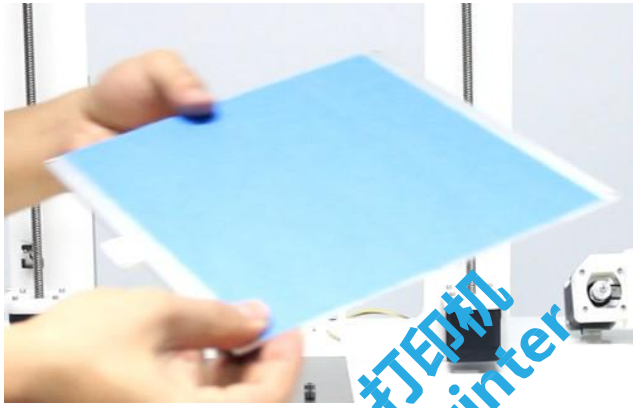
The shrapnel of the limit switch is toward the box-type bearings. Use the socket head wrench to tighten the screws M2*10-2pcs



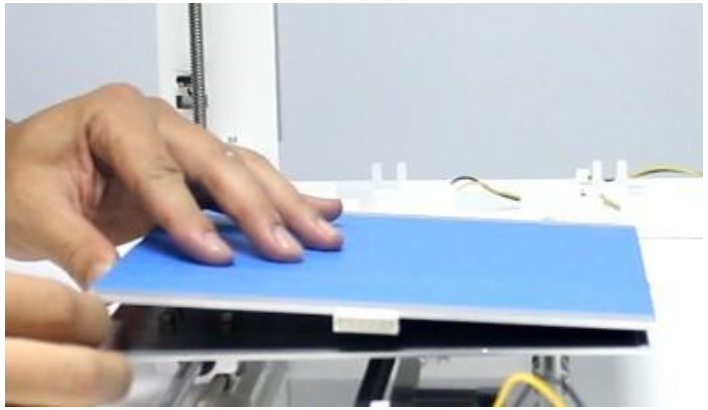


Box-type bearings should thoroughly bear the shrapnel of the lower limit switch. Complete

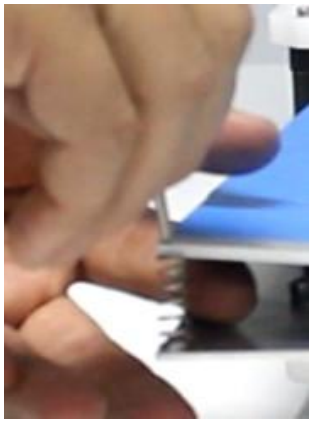
Installation of hot bed



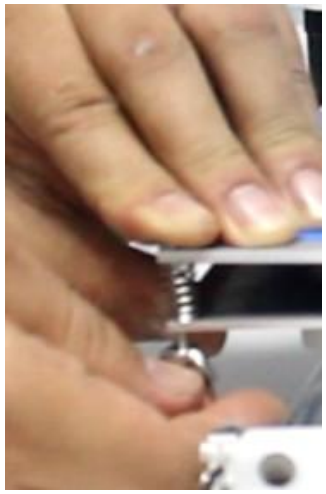
Get ready the aluminum substrate (Do not tear the blue-strap colored paper off.)

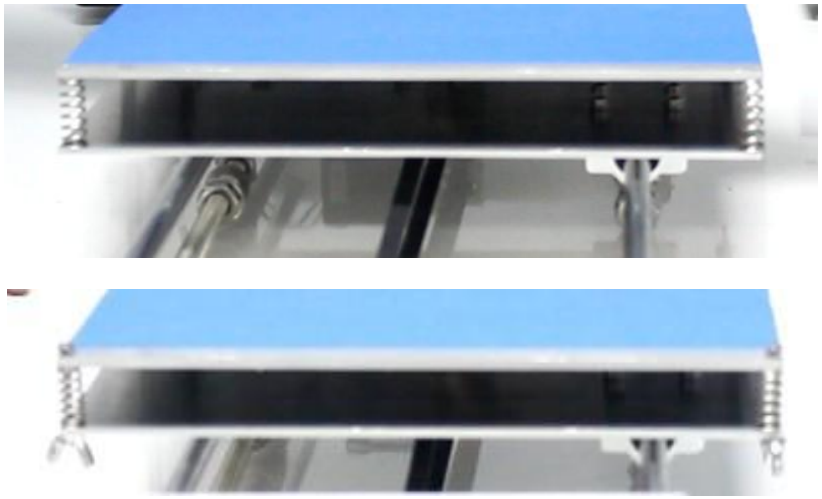


Put the aluminum substrate on the aluminum sheet and the wiring duct should be toward the Y-axis motor

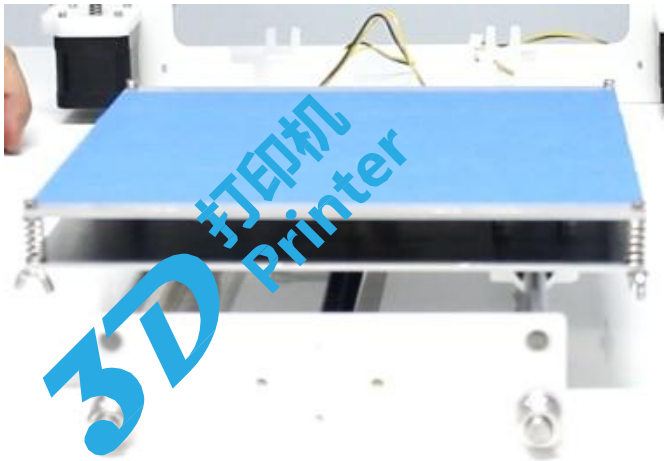


Tighten the 4 screws M3*25 and 4 springs and 4 butterfly caps



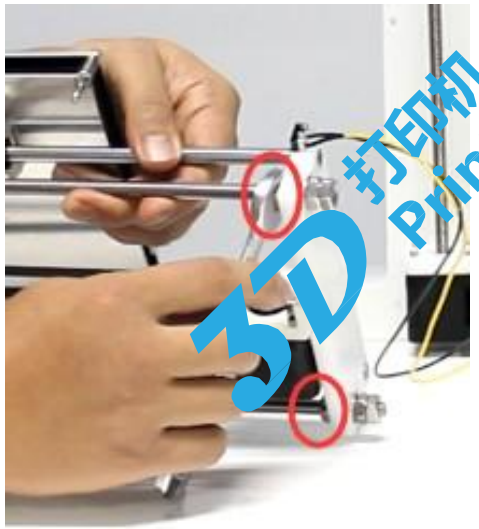


Install the spring between the aluminum substrate and aluminum sheet, and install the screw M3 through the aluminum substrate and sheet. Then tighten the butterfly cap.

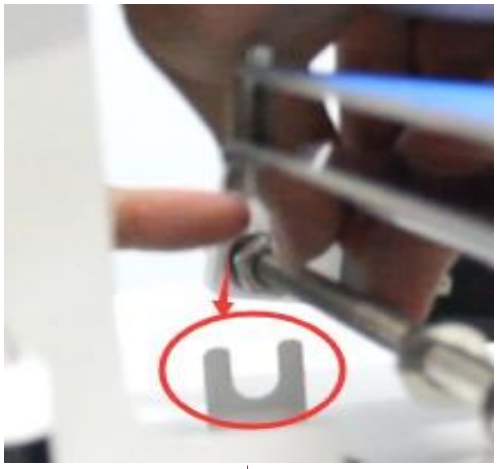


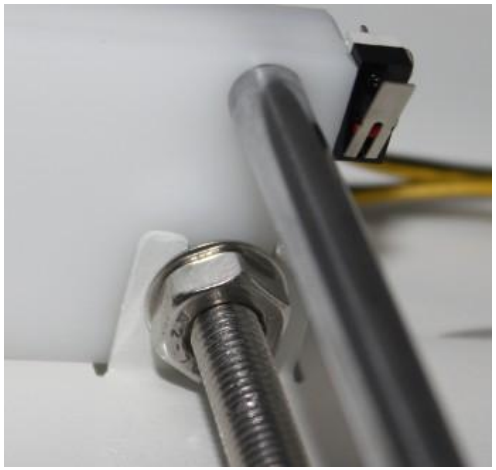
Complete

Whole Y-axis installed to main body

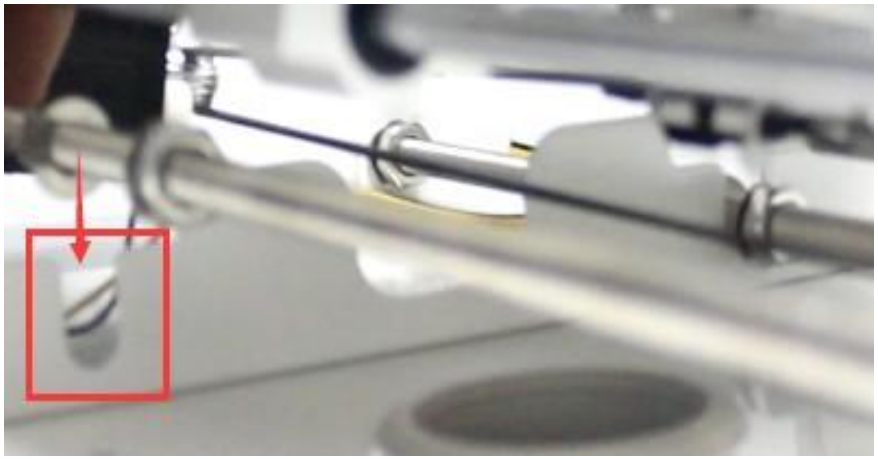


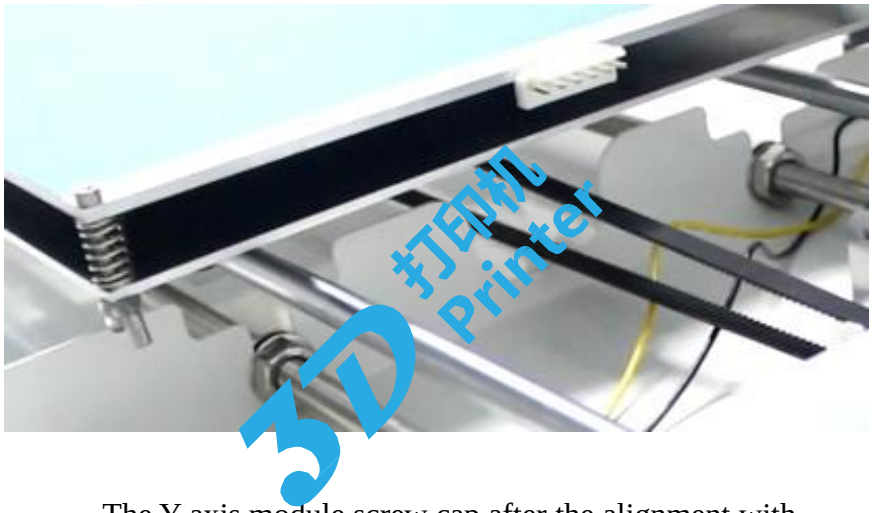
Put the components of Y-axis next to the cap of the motor (a bit loose)



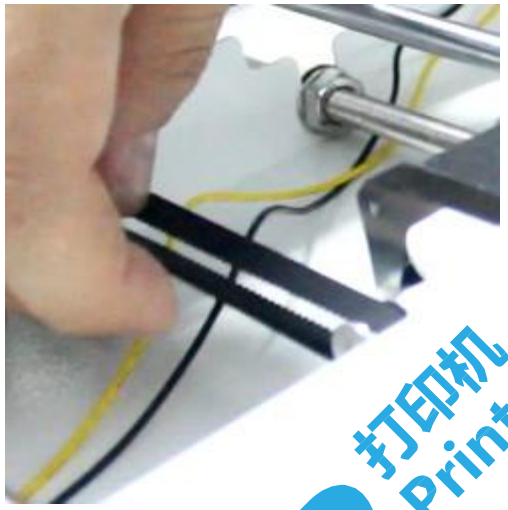


The Y-axis module screw cap after the alignment with the U-shaped slot fixed with the back end of the batter board





The Y-axis module screw cap after the alignment with the U-shaped slot fixed with the middle end of the batter board



After aligning the hole, check the tightness of the synchronous belt.

If it is a bit loose, then screw outside the left cap to a certain distance; if it is a bit tightened, then screw inside the left cap to a certain distance (The supporting block also moves inside or outside).Until the synchronous belt is properly tight, then tighten the screw cap.

The back screw cap should be tight to the surface. Then tighten it.

Use hands to test whether the platform moves smoothly.
Complete

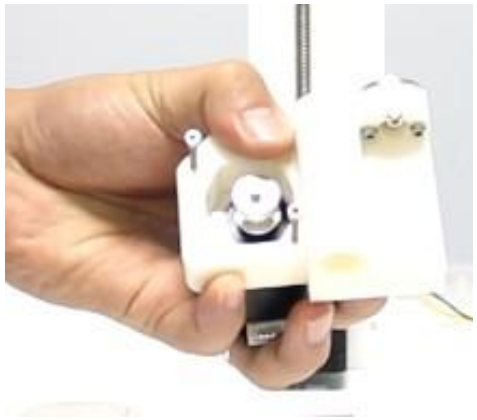
Chapter 3 Transmission mechanism on X-axis


Synchronous belt
Long linear bearing-1 pc
Short linear bearing-1pc
Slick rod:Φ8*380-2pcs
Sprayer fixing seat
Rear cover
Self tapping screw
M3*8-8pcs
X-axis motor
X-axis driven seat
Ribbon
Screw: M3*20-4pcs
X-axis motor seat
Screw cap: M3-1 pc Screw:
M3*16-1pc
693 lip type bearings-2pcs

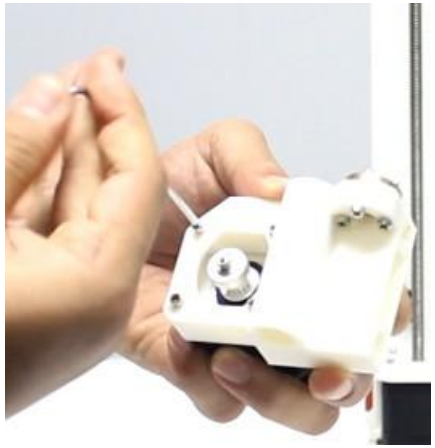
Installation of X-axis motor

Get ready the X-axis motor and motor seat

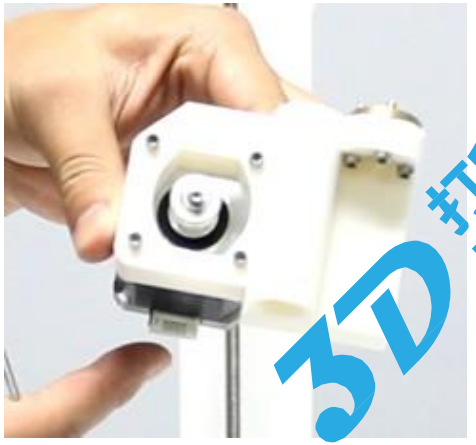
Align the hole site



Install 4 screws M3*20-4 pcs



Use the socket head wrench to tighten

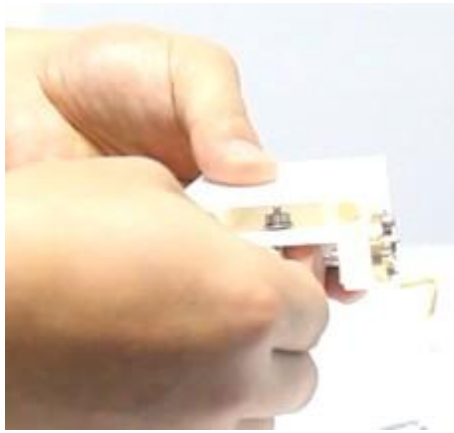


The wiring duct of the motor should be downward. complete.

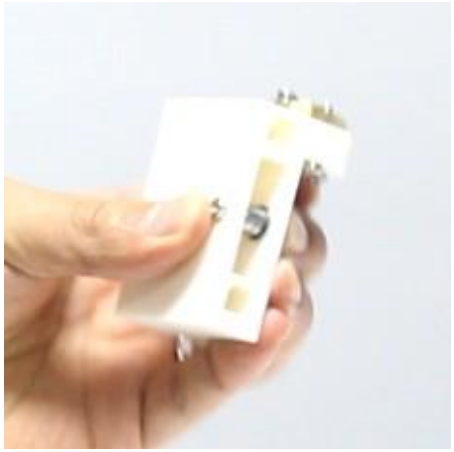
Installation of 693 bearings with edge

Get ready the X-axis driven seat and two 693 lip type bearings

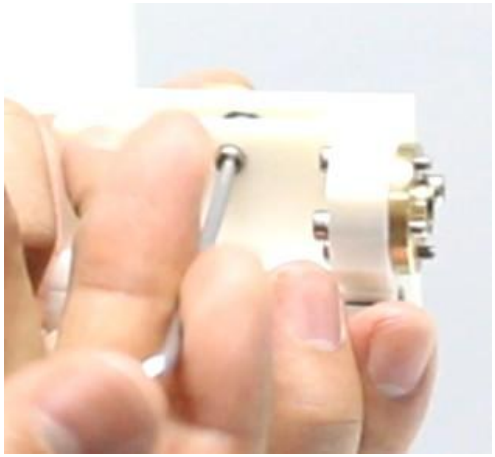
Put the screw M3*16 through one side of the X-axis driven seat.



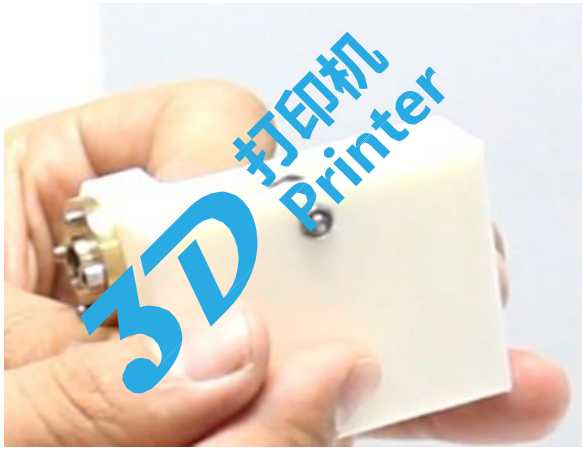
Install the 693 lip type bearings and its side should align with the side fo the X-axis driven seat.



Similarly, install another lip type bearing and the screw cap.



Use the socket head wrench to tighten the screws.



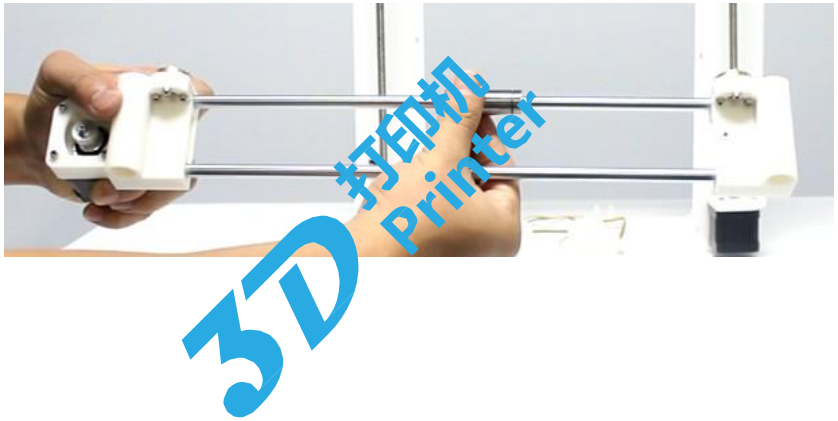
Complete

Installation of polished rod and linear bearings

Get ready two slick rods of ∮ 8*380, one long and short linear bearing each, and assembled modules.

Insert the slick rod to the mounting hole.

Install the linear bearing and X-axis driven seat. The slick rod should be flat and smooth.

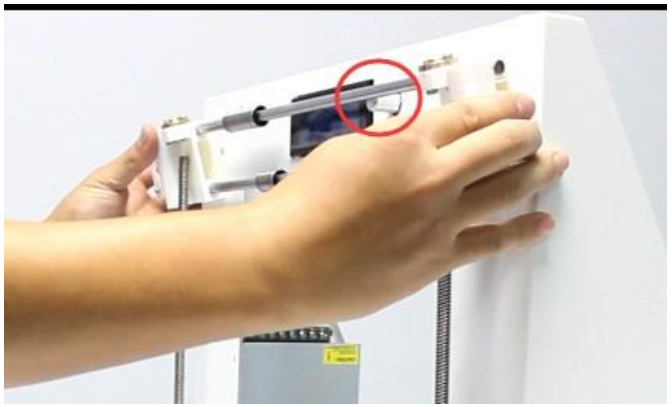


Install one short and long moving bearings and insert them into the mounting holes. Complete

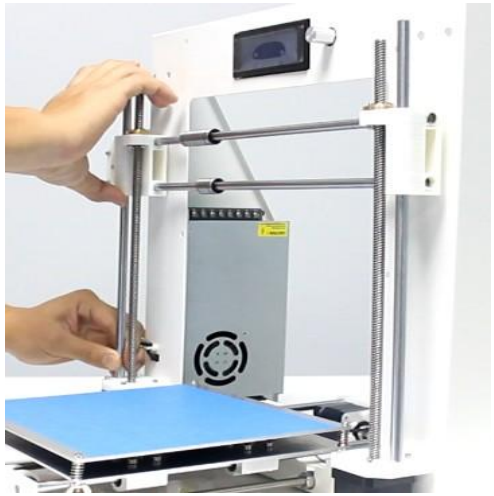
.

Whole X-axis installed to Z axis lead screw

Get ready the X-axis and batter board



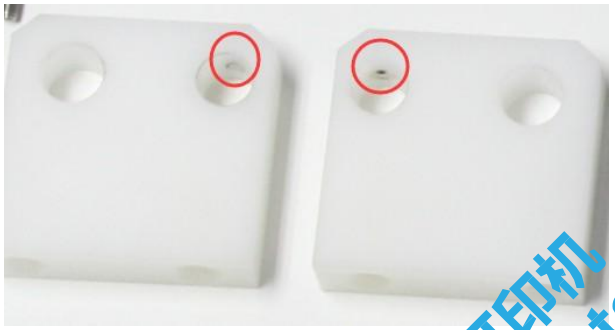
While installing, avoid the knob of the display screen and align the whole of the T-shaped nut.



Screw the slick rod with both hands to see whether it moves smoothly. If it doesn't move smoothly, it is required to move the X-axis motor seat or driven seat inwardly a certain distance until the slick rod can be smoothly screwed. Then install the ∮ 8*321-2 to the Z-axis motor mounting holes.

Revolve the slick rod to see whether it will be stuck or not. Complete

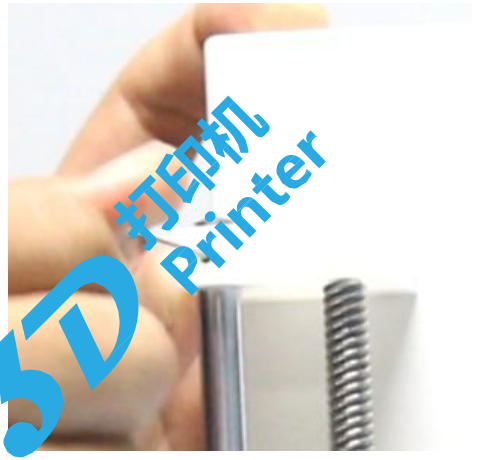
Installation of fixing base



Get ready the fixing seat, and install the screws M3*5-2pcs

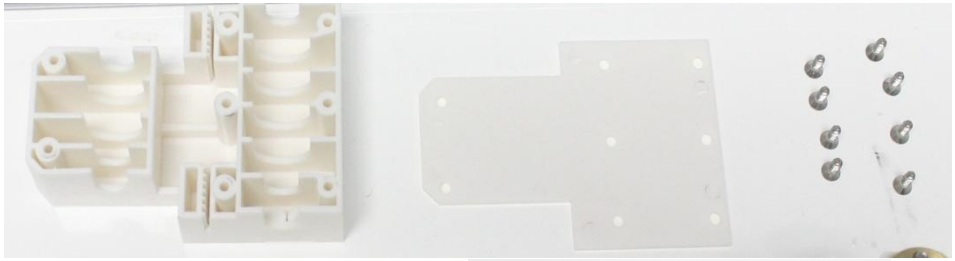
Align the screws hole to the light but do not tighten them.

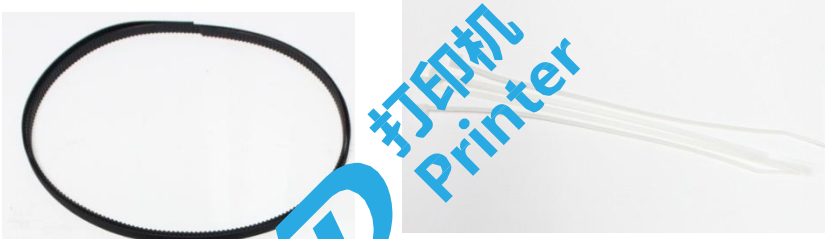
Align the two holes and tighten the screws M6*10-2pcs. The other side is the same. And use the socket head wrench to tighten them.



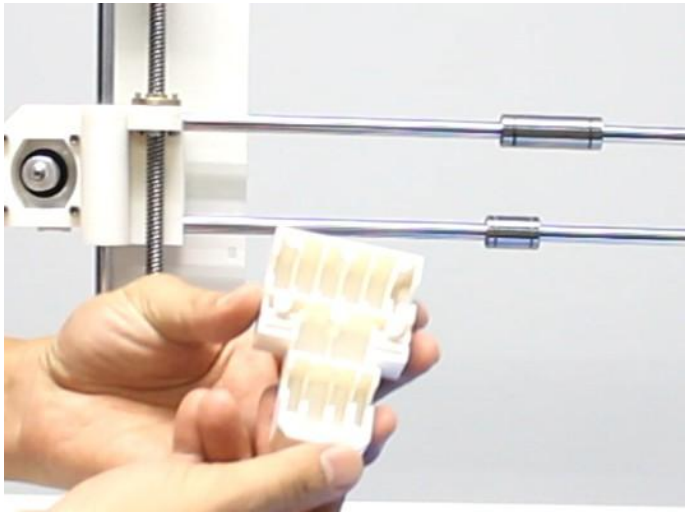
Finally tighten the screw and Complete.

Installation of X-axis synchronous belt

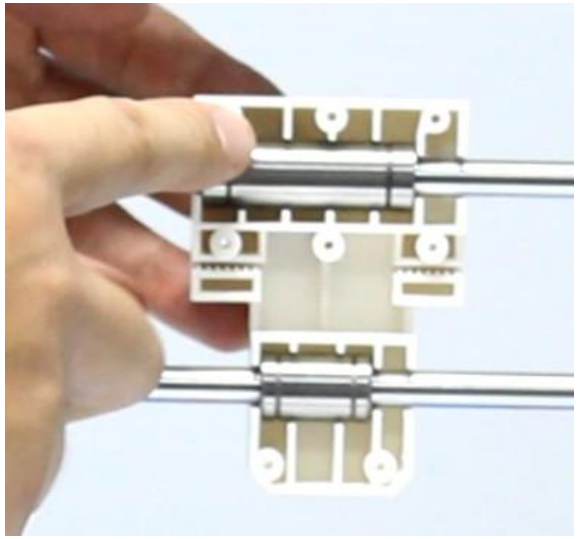




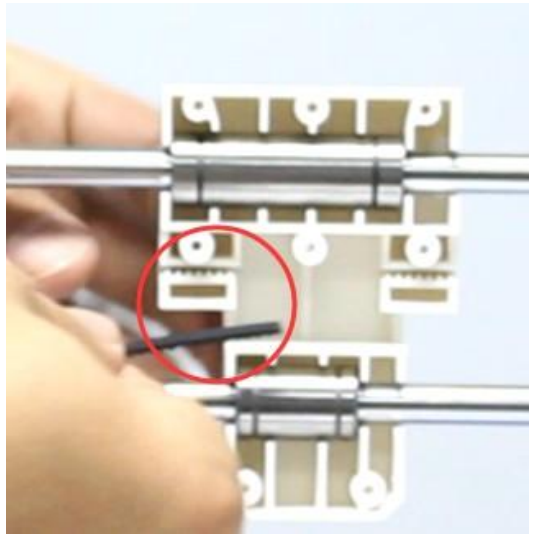
Get ready the sprayer mounting seat, cover plate, synchronous belt, ribbon and countersunk head screws M3*10 and 8 self tapping screw caps.

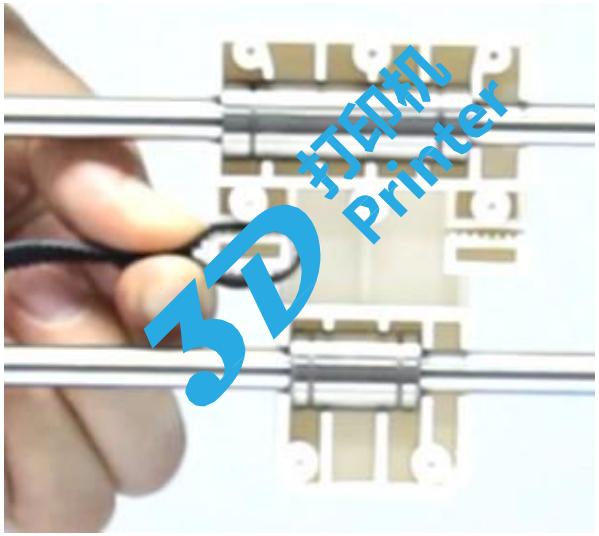


Check the hole .

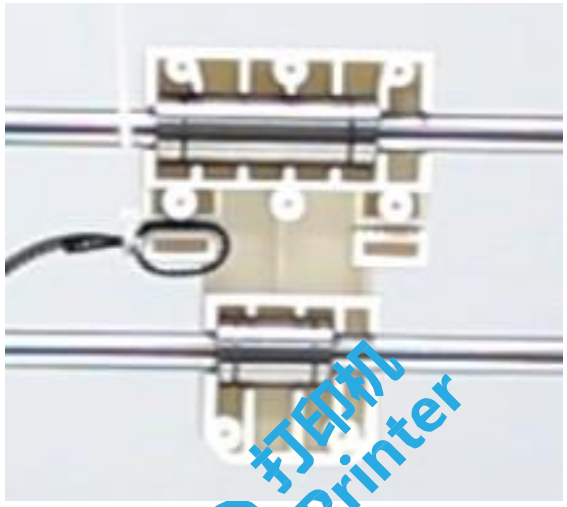


Align the hole site.



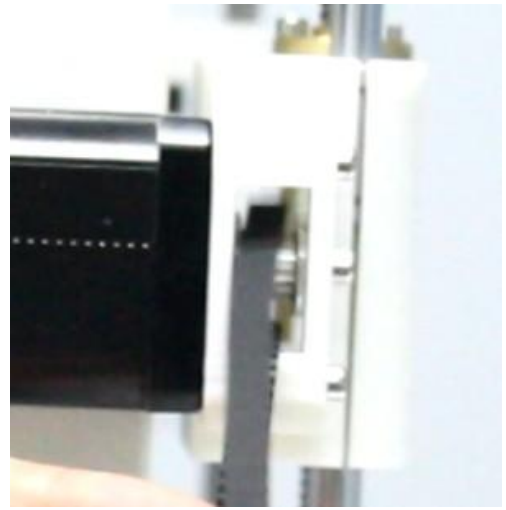


Take one synchronous belt and align one end of teeth and round it back.

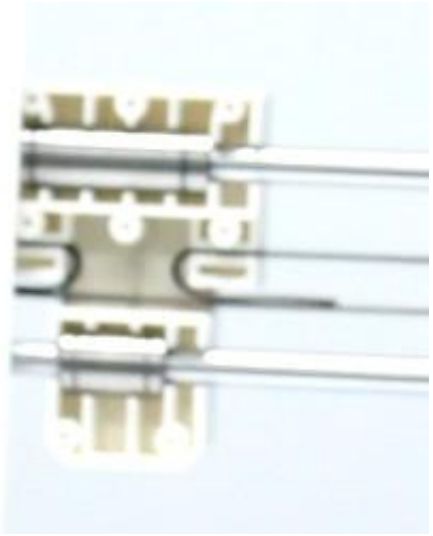


Bind it up with the ribbon.

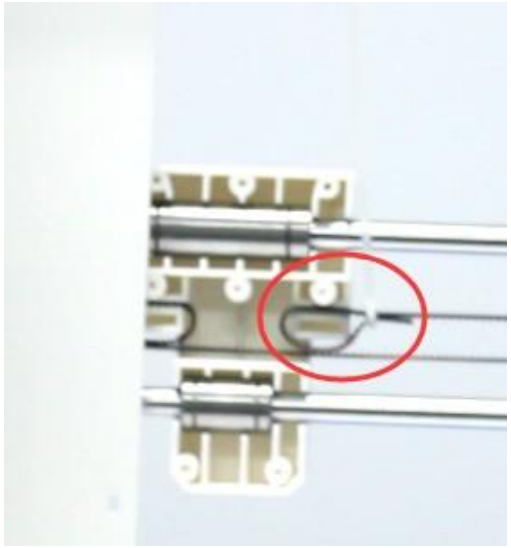
The other end of the belt rounds through the lip type bearing in the driven seat.



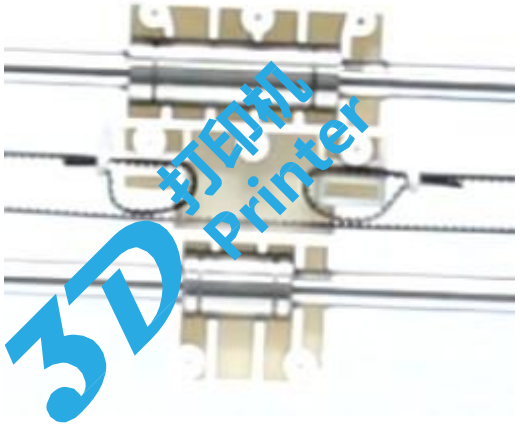
Continue to round it through the synchronous teeth in the X-axis motor seat. The rounding order will vary with the installation order.



Align the teeth.

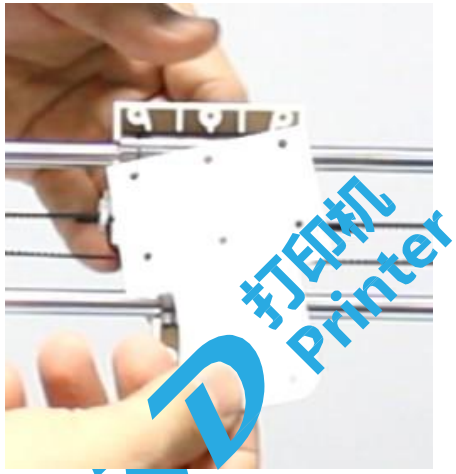


Fasten with the ribbon.

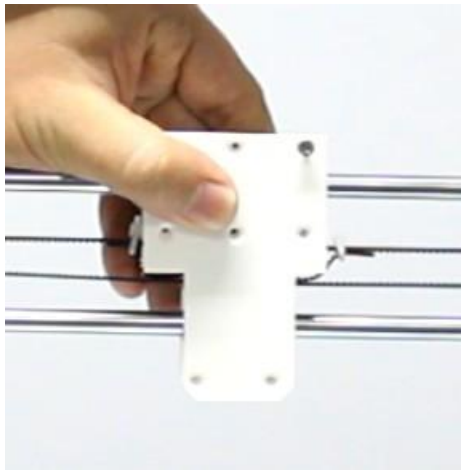


Complete

Installation of the cover plate

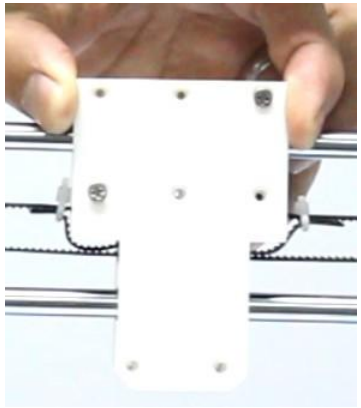


Put the side with the countersink outward, and align the hole site.

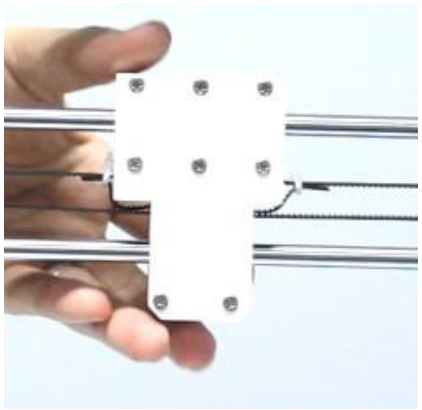


Install one countersink self tapping cross screw M3*10

Tighten it with a cross screwdriver



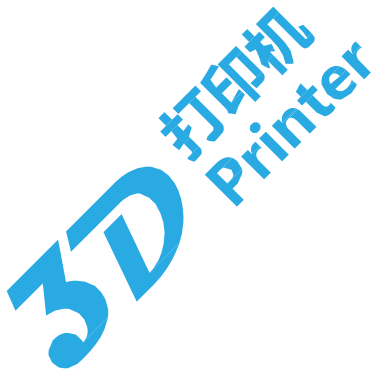
Install the other end symmetrically

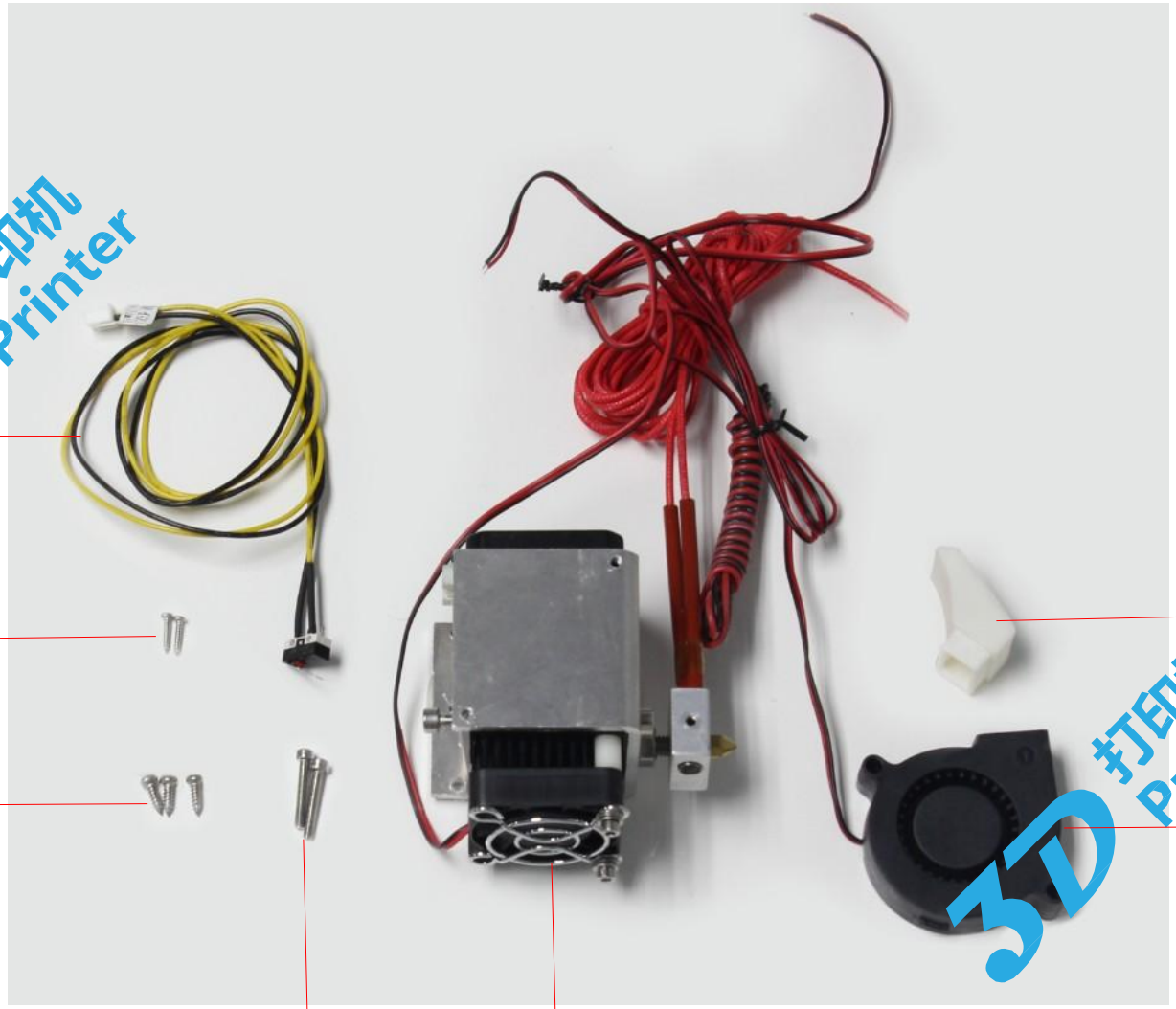


Install the rest 6 screws, Complete

Note: after installation, use hands to move backward and forward to feel the tightness of the synchronous belt. If it is hard to move, it is required to loosen the belt a bit; if it moves unevenly, it should be bit tightened.

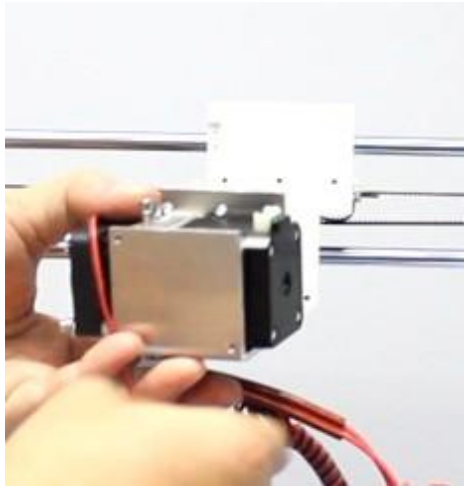
Chapter 4 Extrusion Mechanism



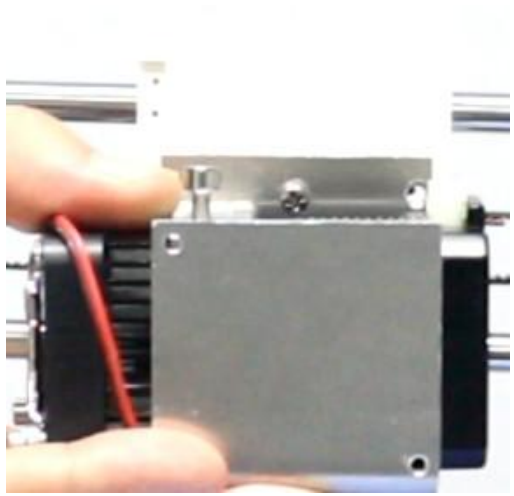

X-axis limit switch
2pcs self tapping screws: M2*10
3pcs self tapping screws: M3*10
2pcs screws:M3*20
Sparyer suites (which have been assembled before delivery)
Tuyere
Turbofan

Installation of MK8 Extruder

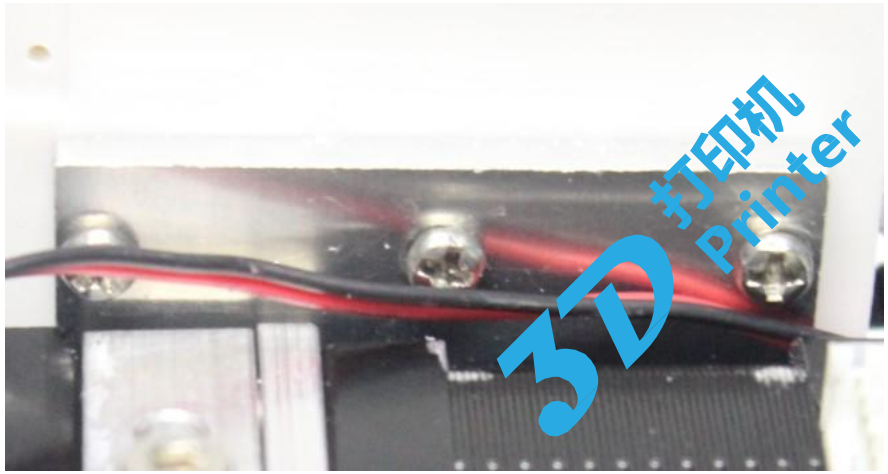
Get ready the sprayer suites



Align the hole site



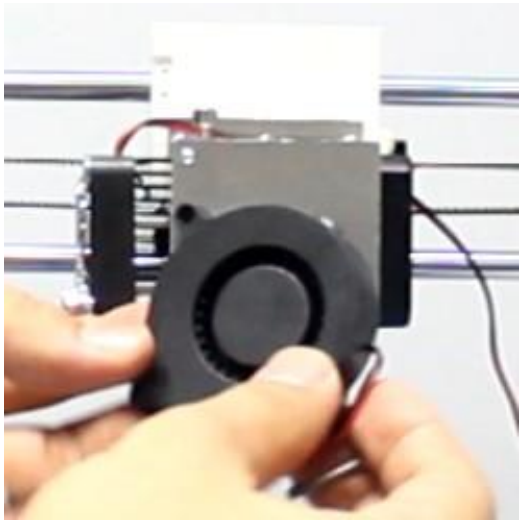
Fix with one cross self tapping screw M3*10



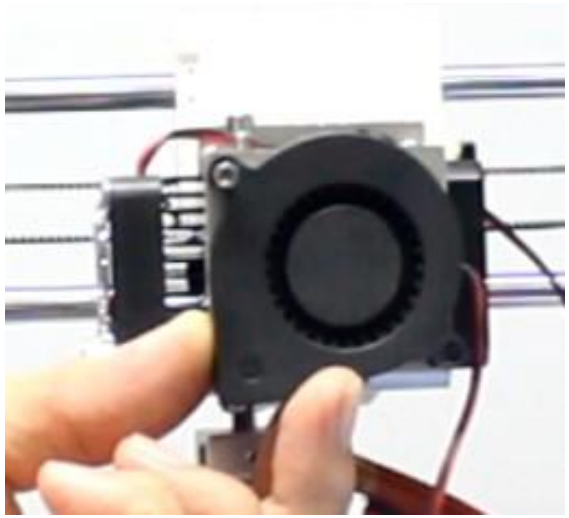
Use a cross screwdriver to tighten and install another two by turn. Complete

Installation of turbofan and tuyere

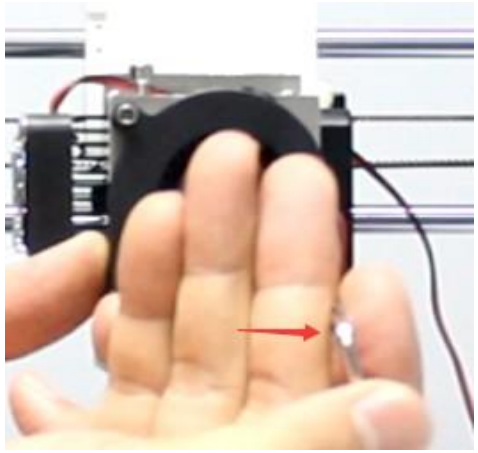
Get ready t[illegible] turbofan and tuyere.



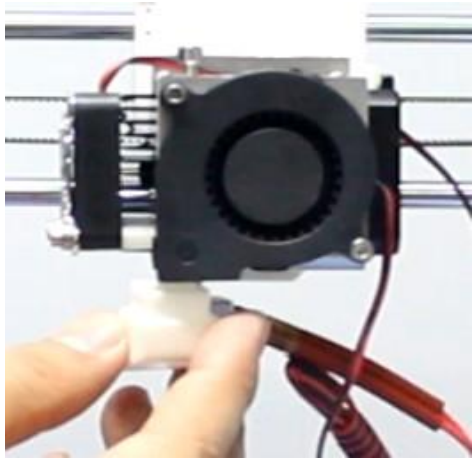
The side with the nameplate of turbofan faces inside and aligns the hole.



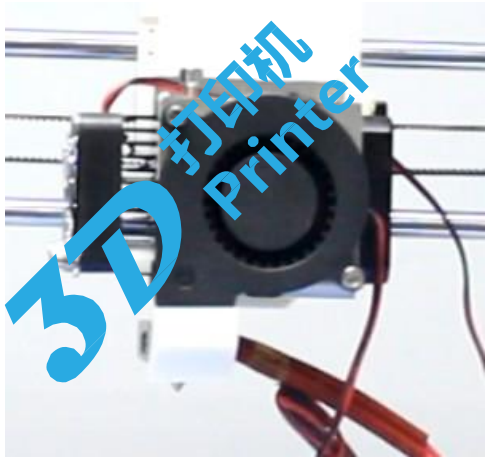
Install 2pcs of screws.



Use the socket head wrench to tighten.



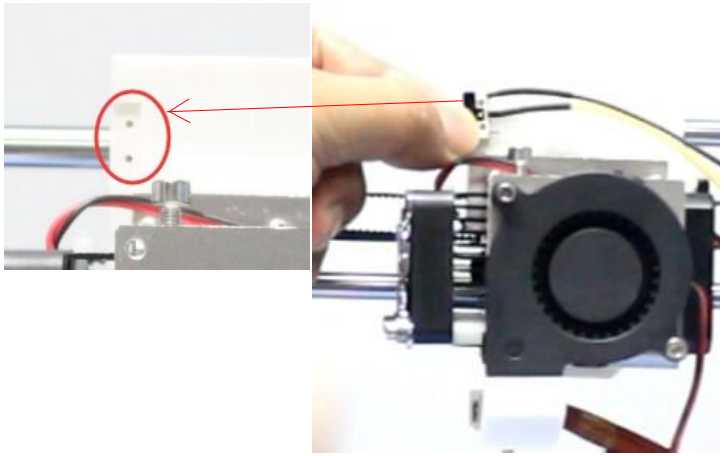
Align the tuyere with the air outlet of the turbofan and install.



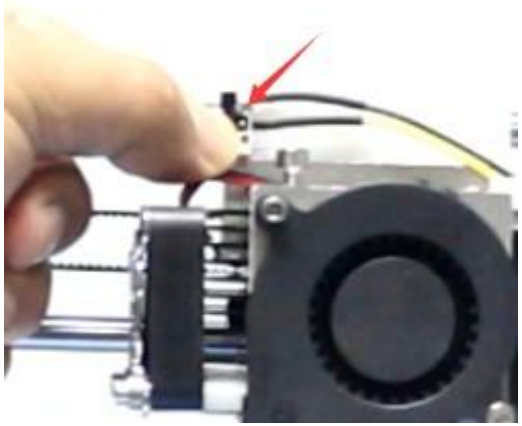
Complete

Installation of X-axis limit switch

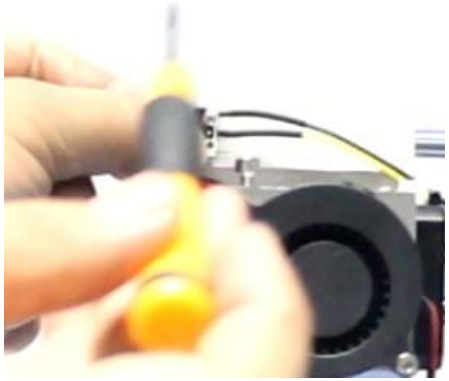
Get ready the X-axis limit switch and two self tapping screws M2*10.



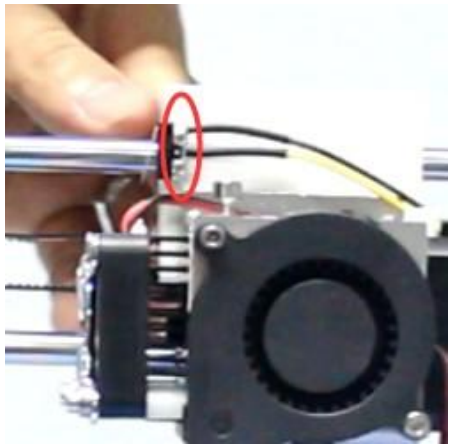
Align the hole of the limit switch with the hole of the sprayer seat.



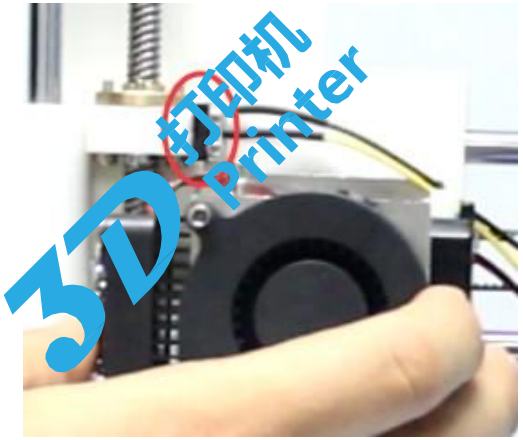
Install the self tapping screw M2*10.



Use the small cross screwdriver to tighten the screws.

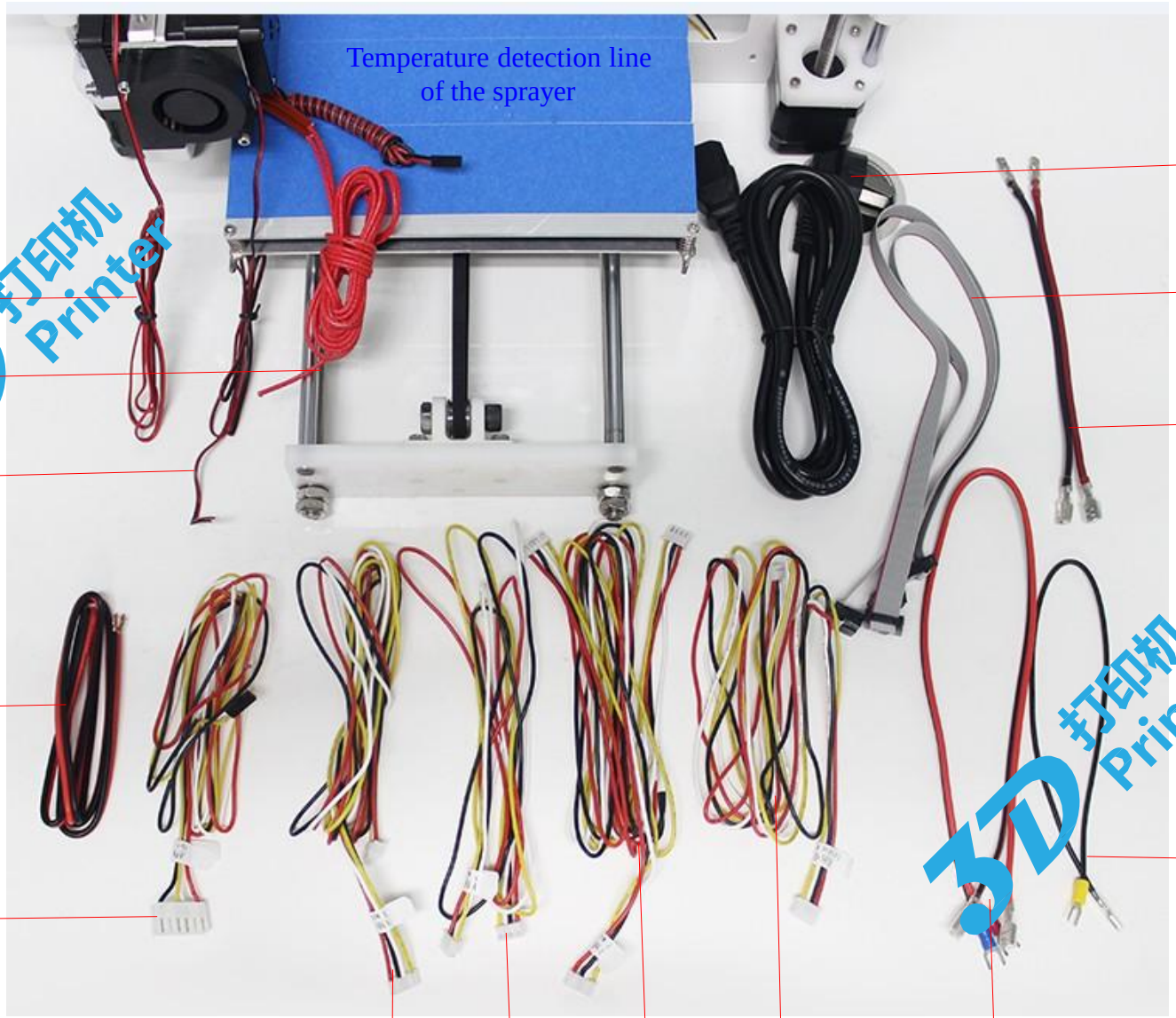


Complete



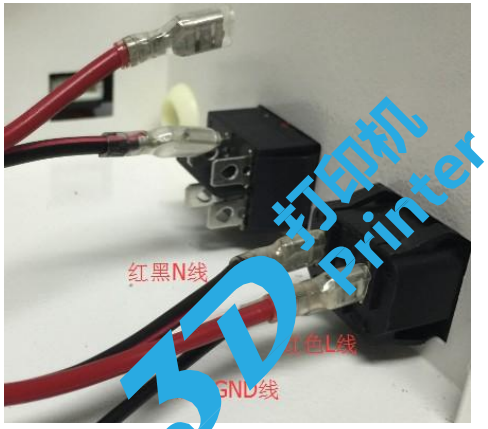
Move the whole sprayer limit switch to see whether it can touch the X-axis motor seat.

Chapter 5 Installation of Control Circuit and Frame

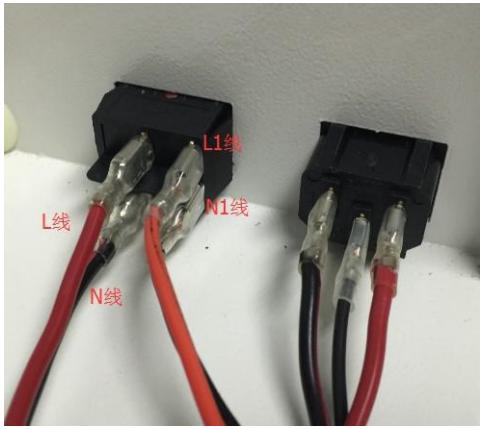

Temperature detection line of the sprayer
Square fan above the sparyer
Heating tube above the ssprayer
Turbonfan above the sprayer
12V power supply - mainboard
Hot bed line including the temperature detection line
Power line
Display screen line
AC socket-AC switch line
AC socket GND-power supply GND
X-axis motor line
Y-axis motor line
Z-axis motor line
Extrusion motor line
AC switch-power supply

Installation of power switch line

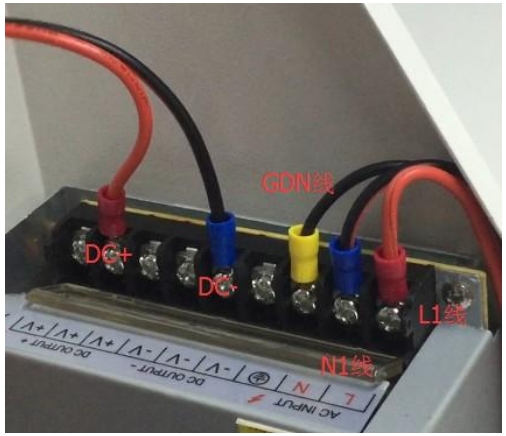
Note: In order to let the customers more directly understand the structure of the equipment, here several pictures are specially explained as follows.



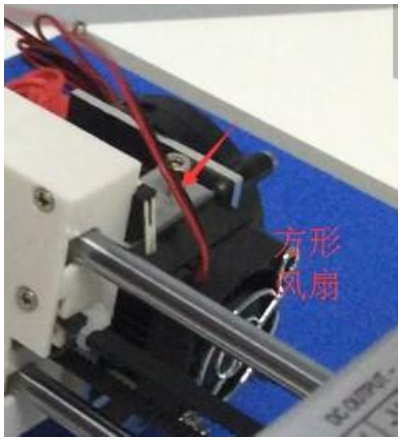
Connect the AC socket line to the AC switch.

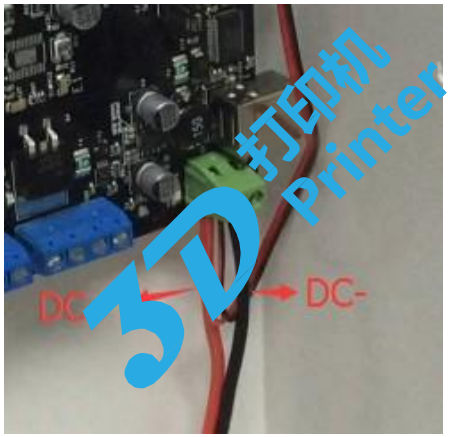


Connect the AC switch line to the power supply.



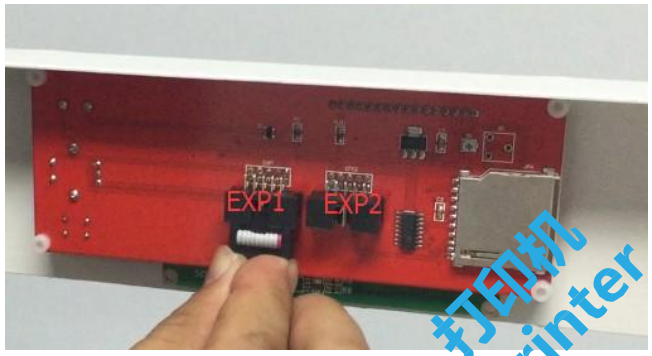
Connect the 12V power supply to the mainboard.





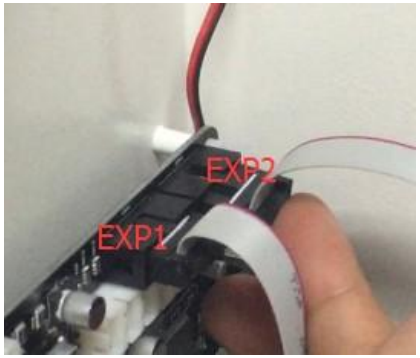
Put the red and black lines of the square fan through the hole of the batter board, and connect them to the terminal together with the 12V power supply line. Complete

Installation of LD display line



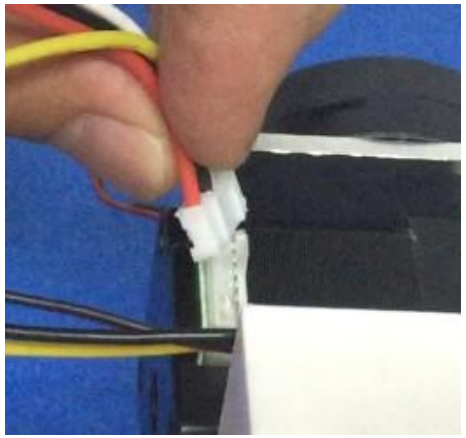
Connect the sockets to the display screen.

Connect another socket.

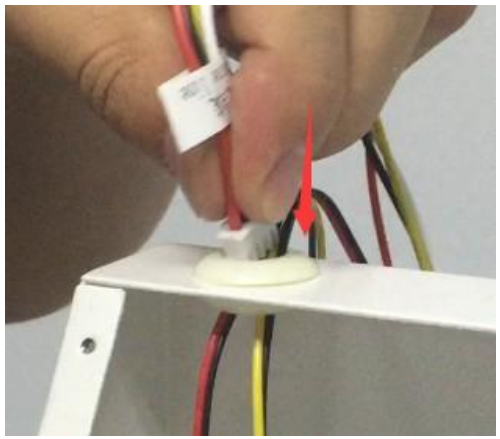


Connect the other end to the control hole of the mainboard.

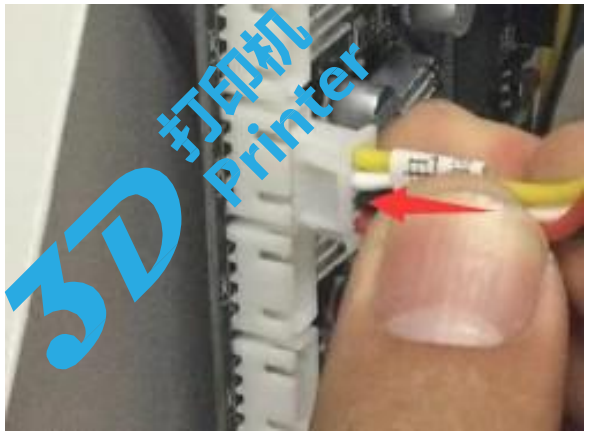
Installation of extrusion motor line



Connect the extrusion motor line to the motor.



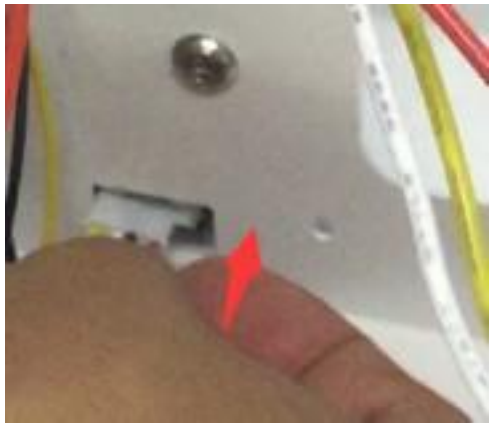
The other end puts through the hole of the batter board.



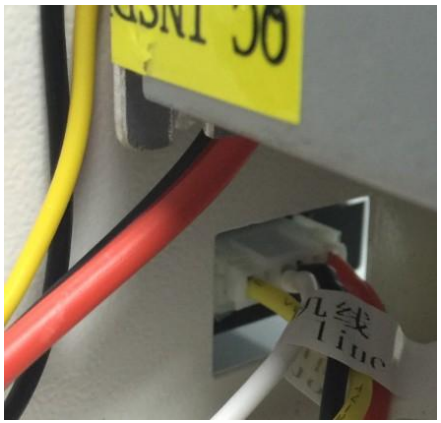
Then other end is connected to the control hole of the mainboard.

Installation of Z-axis motor

Connect the Z-axis motor line to the control hole of the mainboard.

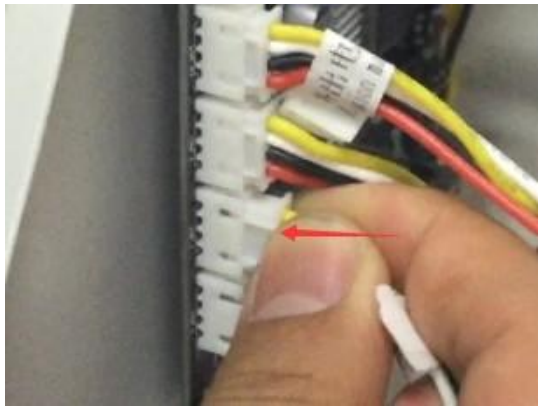


The end with shorter lien is connected to the left motor.

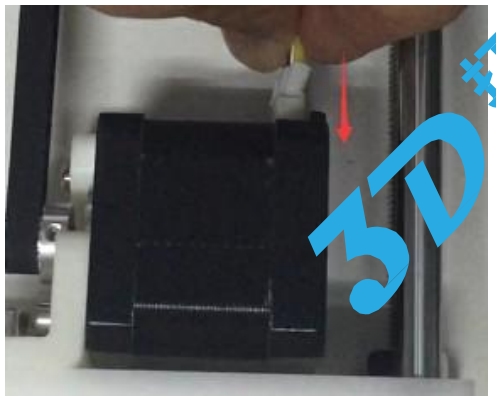


The end with longer line is connected to the right motor.

Installation of Y-axis motor



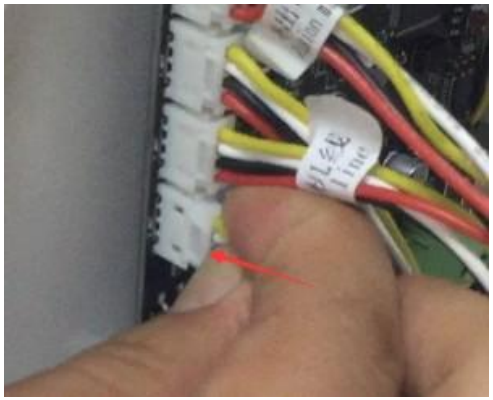
Connect the Y-axis motor line to the control hole of the mainboard.



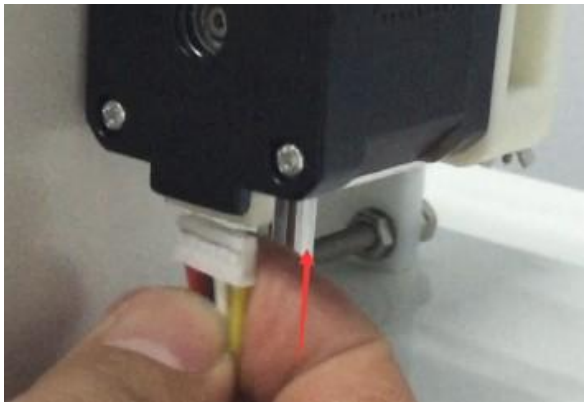
The other end is connected to the Y-axis motor.

Installation of X-axis motor

First put one end of the X-axis motor line through the downside hole of the batter board.

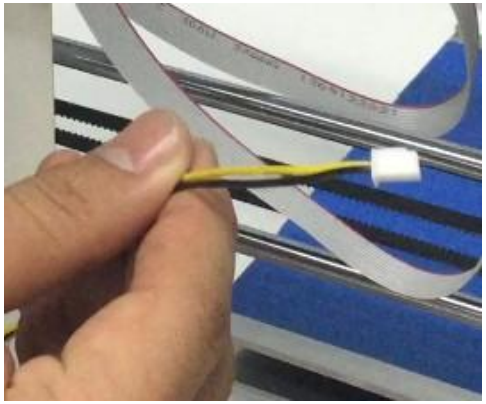


And connect it to the control hole of the mainboard.

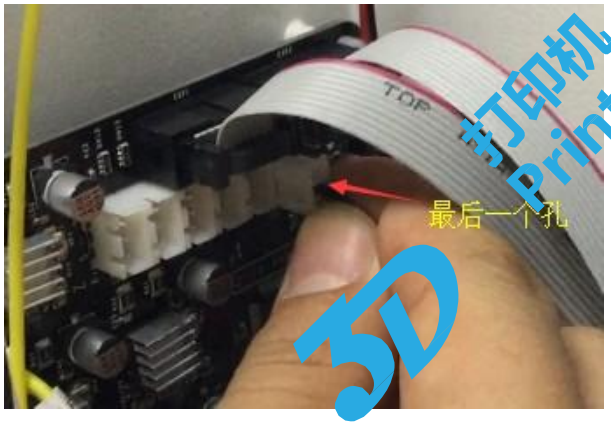


The other end is connected to the X-axis motor.

Installation of Z-axis limit switch line

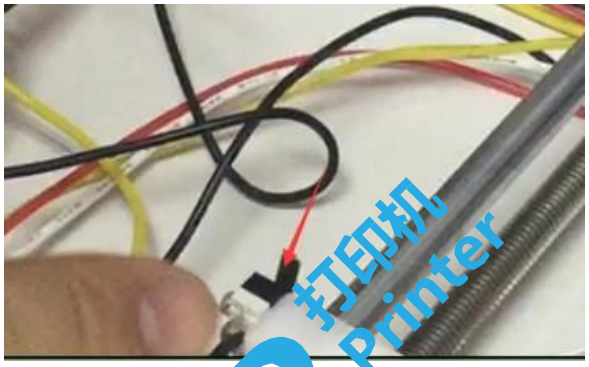


One line of the Z-axis limit switch

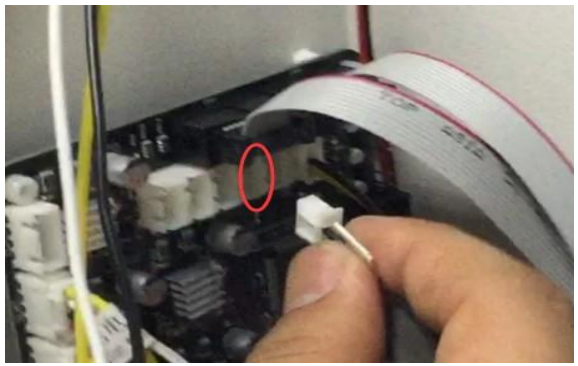


It is connected to the jack of the mainboard.

Installation of Y-axis limit switch line

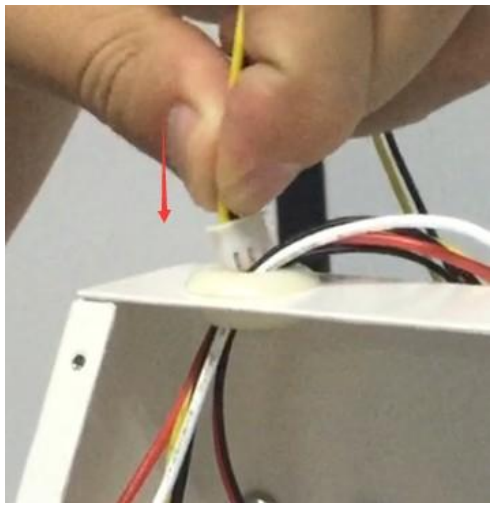


One line of the Y-axis limit switch

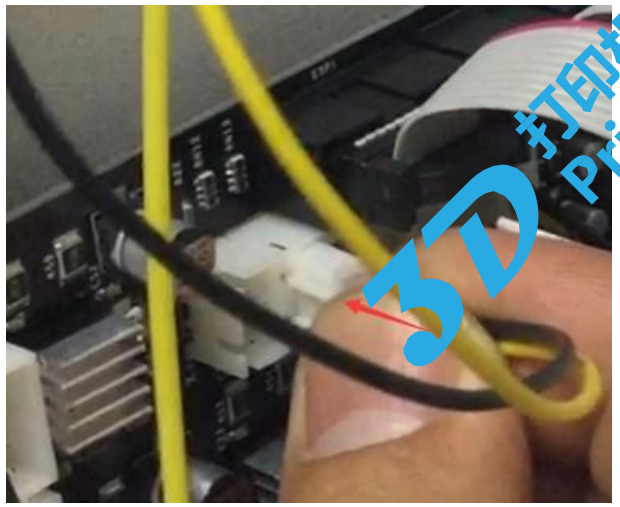


It is connected to the jack of the mainboard.

Installation of X-axis limit switch line



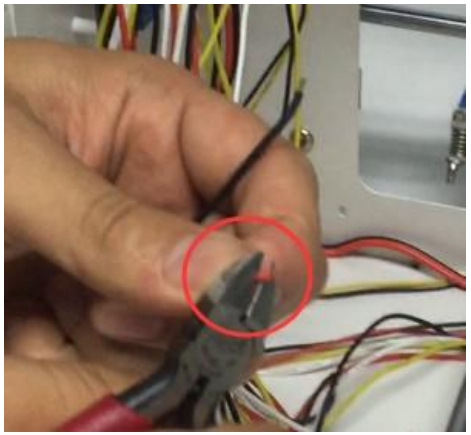
One line of the X-axis limit switch



It is connected to the hole of the mainboard.

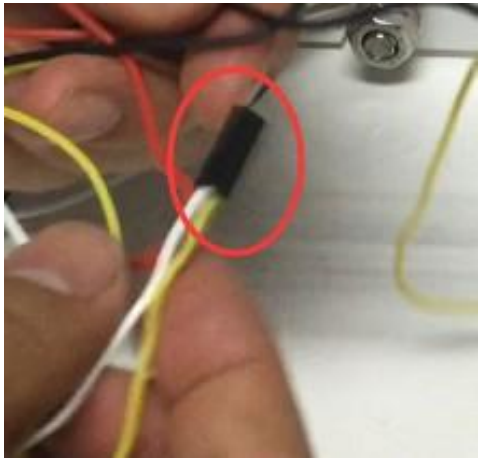
Installation of hot bed line and temperature sensor line

Connect the hot bed line.

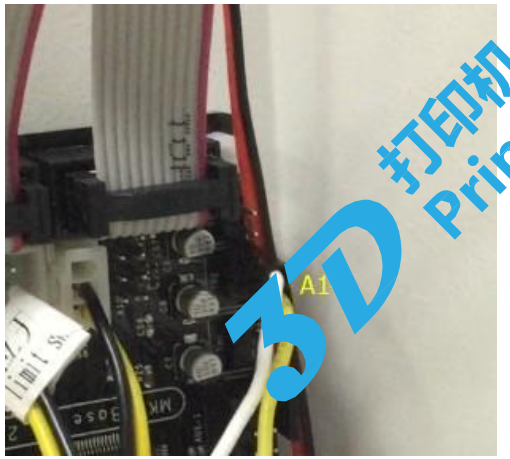


Strip off the red and black wire head of the other end to show the wire cores.

Press tightly on the mainboard terminal.

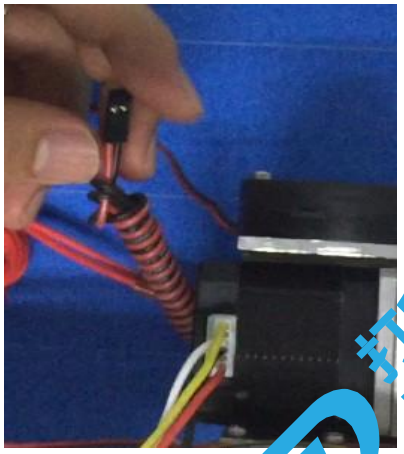


One line of the temperature detection line

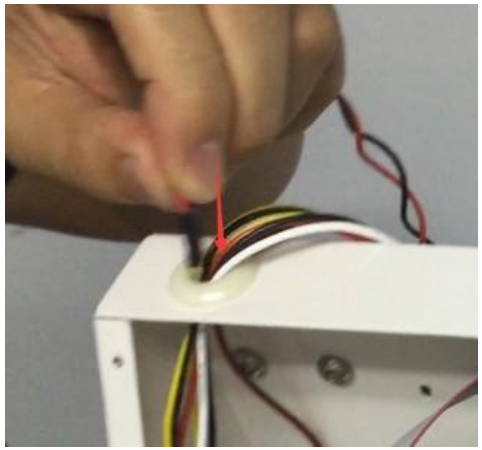


It is connected ot the A14 pin of the mainboard.

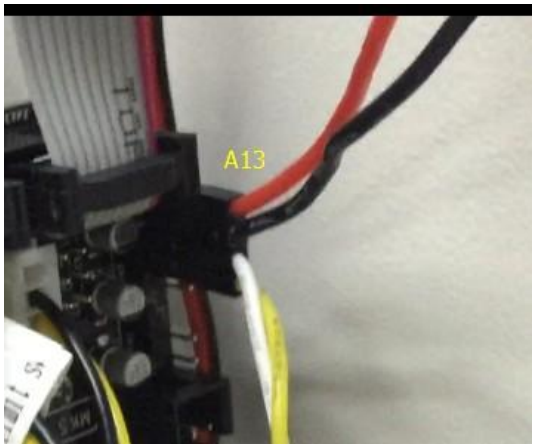
Installation of sprayer temperature sensor line



Unfasten the sprayer temperature detection line

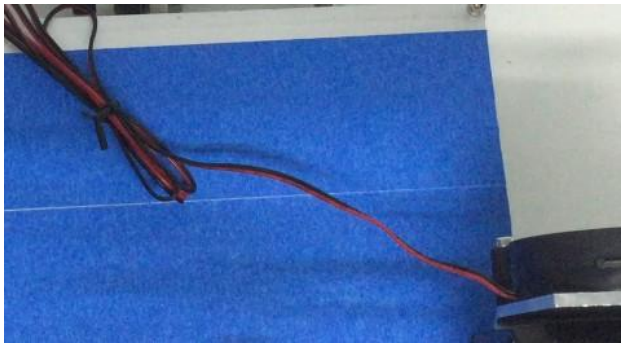


Put it through the hole of the batter board.

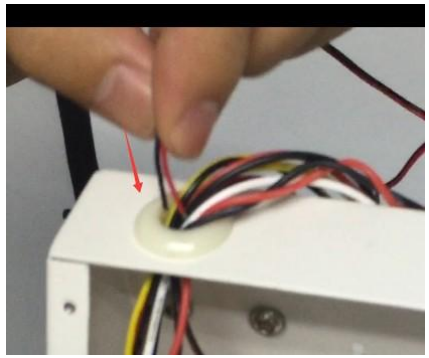


It is connected to the A13 pin of the mainboard.

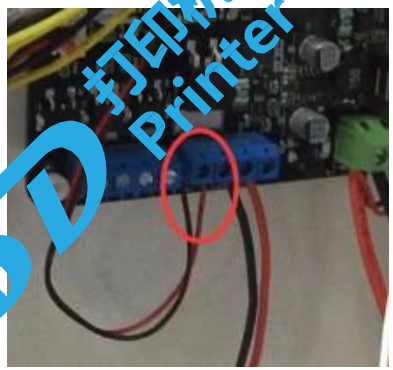
Installation of turbofan line



Unfasten the turbofan line



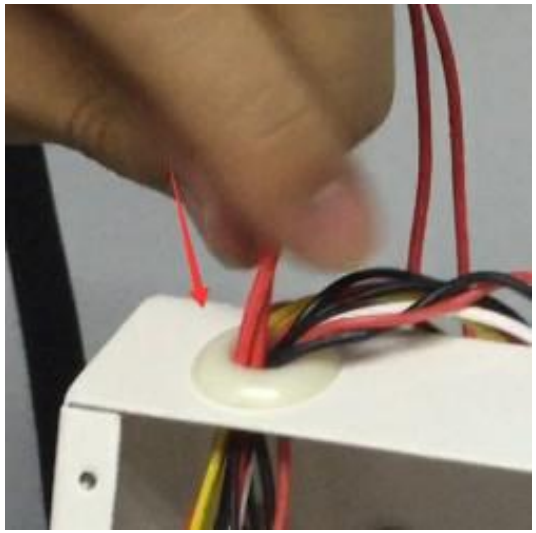
Put it through the hole of the batter board.



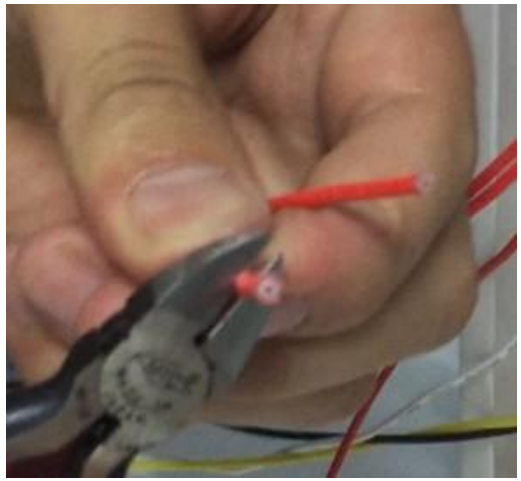
Press it tightly on the mainbaord terminal.

Installation of extruder heating cable

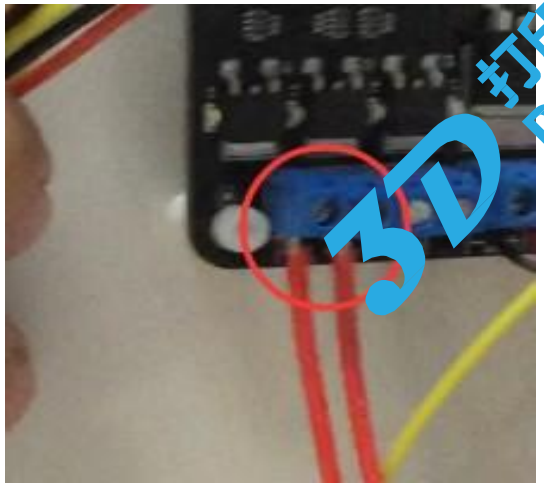
Unfasten the sprayer heating lines.



Put the line through the hole of the batter board.



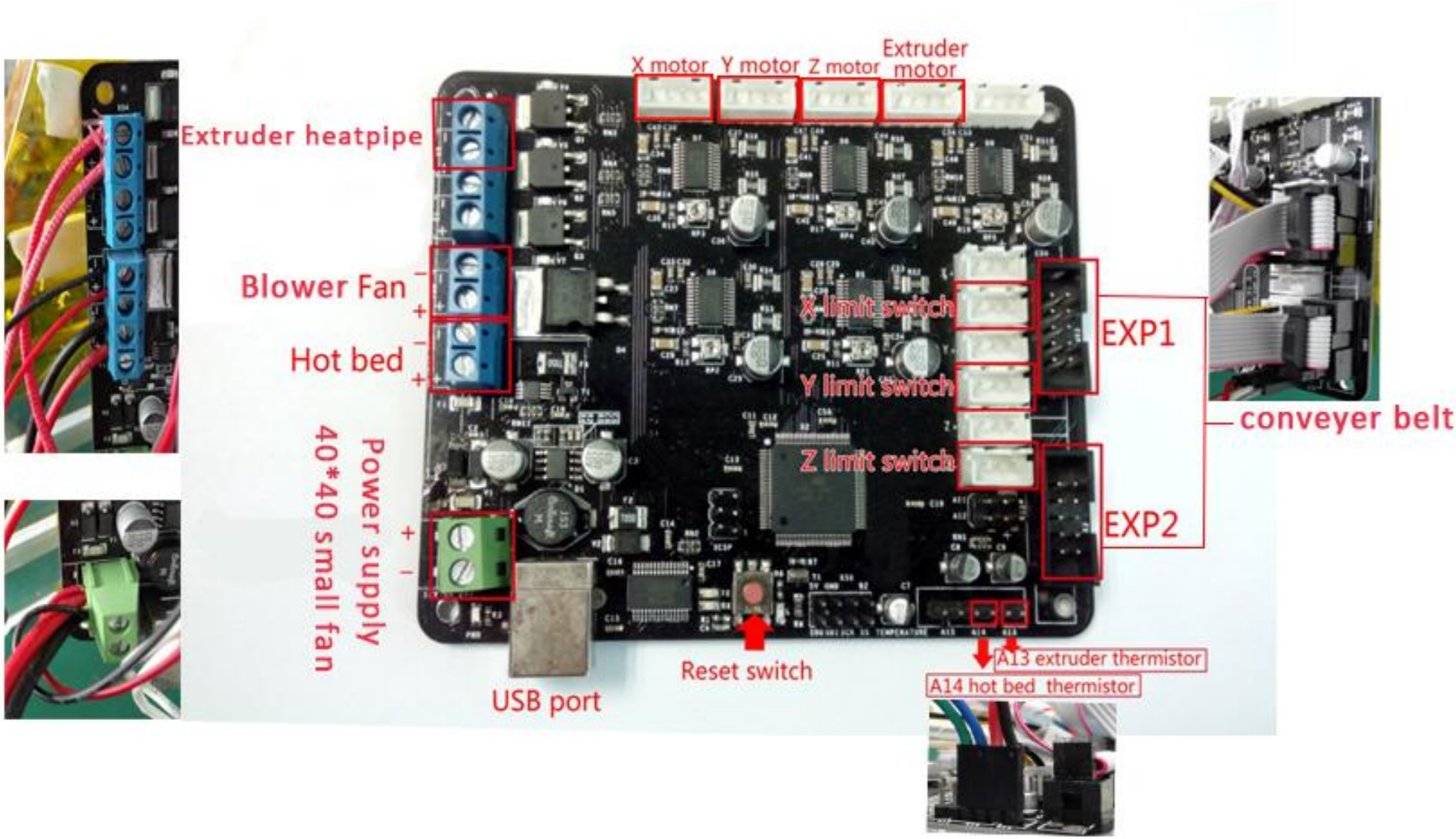
Use the tool to strip off the cord.



Press it tightly on the terminal.

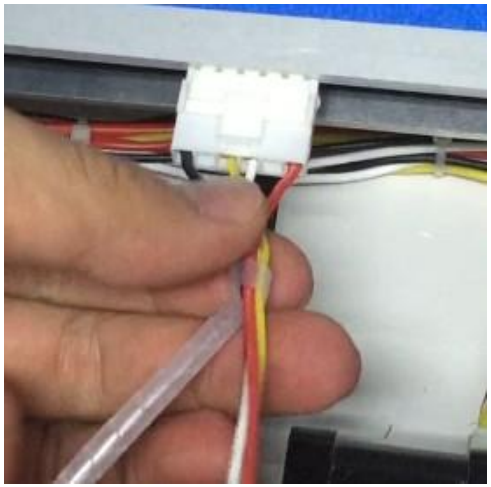
Cable diagram of the mainboard

Note: After finished the cables connection, please check according to the diagram again.



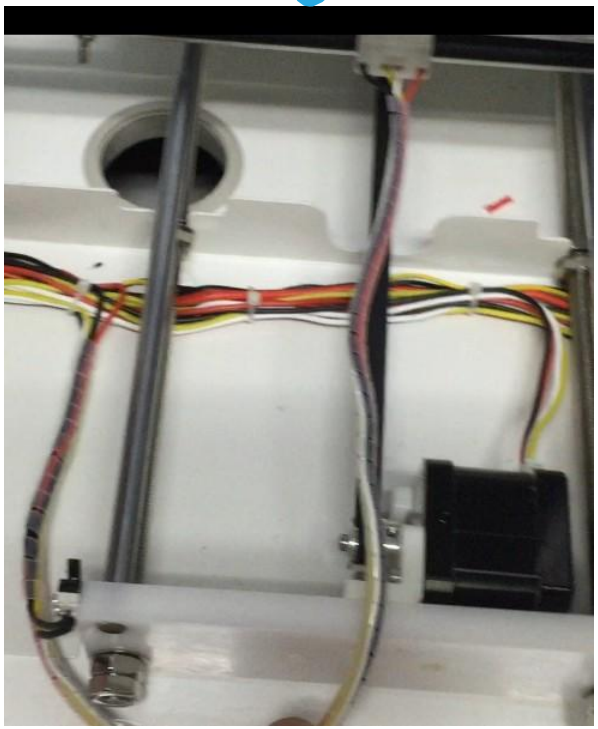
Installation of Y-axis winding tube

Align one end of the winding tube with one end of the hot bed line.



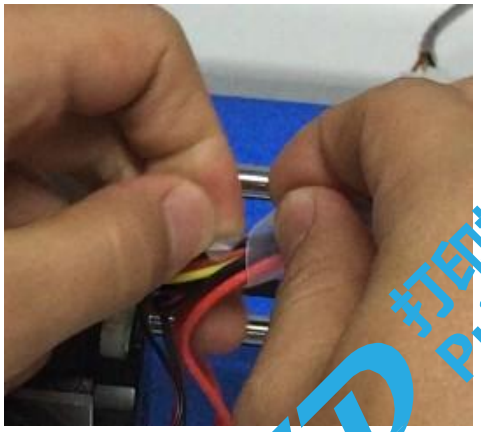
The winding tube is wound up the hot bed line.

The winding tube after winding

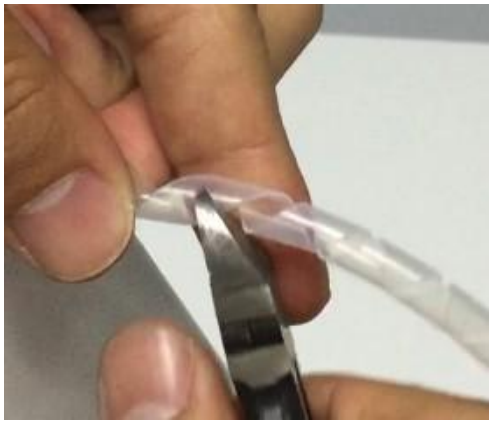


The whole Y-axis winding tubes after winding

Installation of the extrusion winding tubes

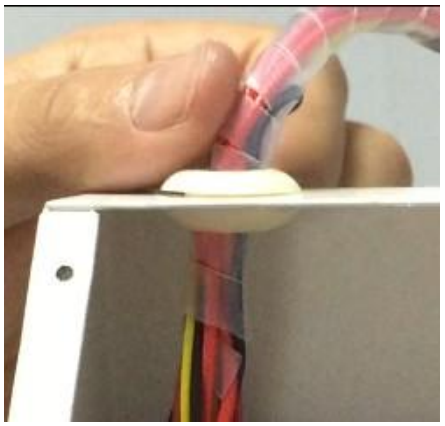


Align one end of the winding tube with all the lines on the sprayer (and leave certain margin; do not pull too tight.)



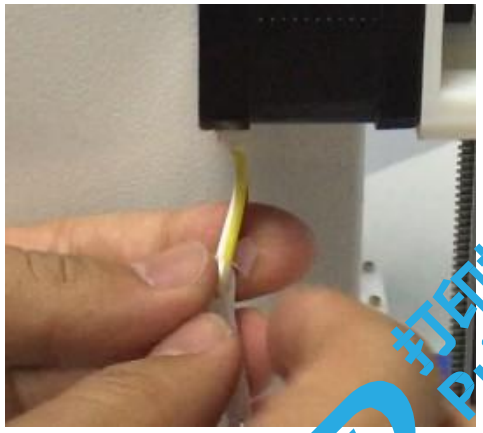
When the winding tube wraps the hole of the batter board, it is required to cut a certain length.

Put the shortened winding tube through the hole of the batter board.

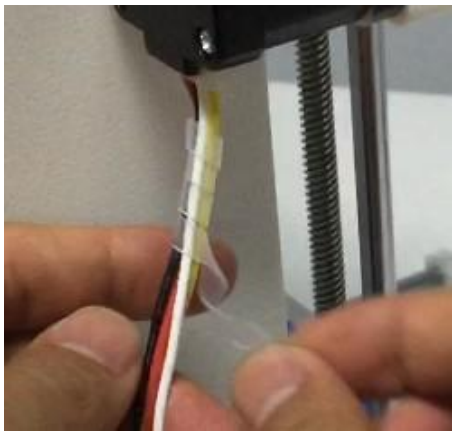


There should be a certain length when passing through the hole.

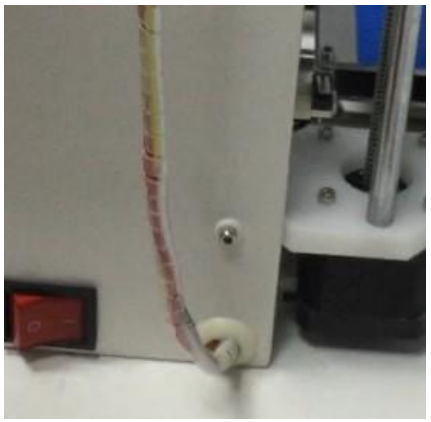
Installation of the X-axis winding tubes



Align one end of the winding tube to the X-axis motor line

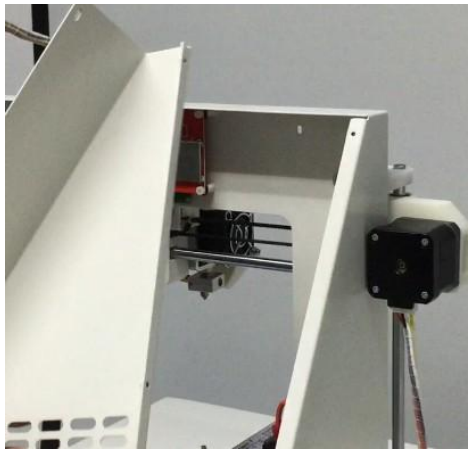


Wrap the winding tube.

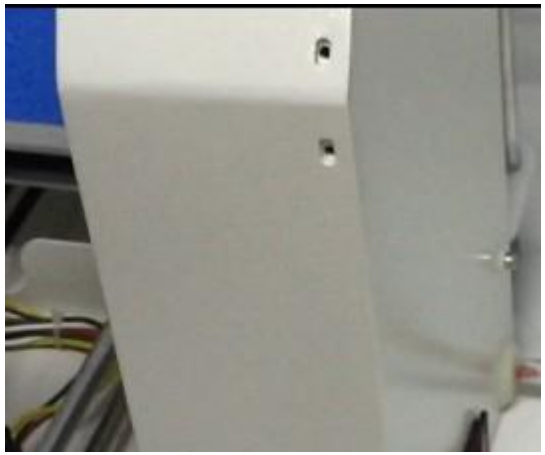


Complete

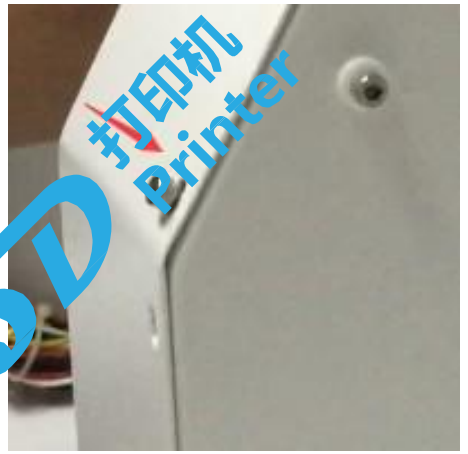
Installation of the right cover



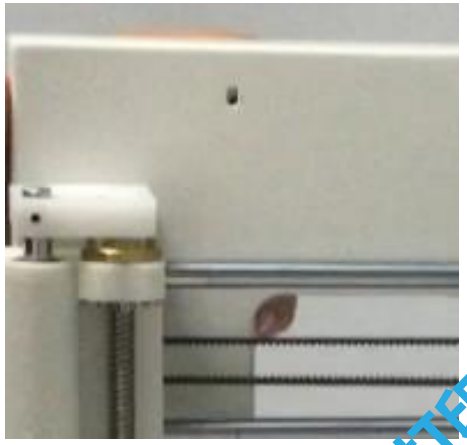
Get ready the right plate.



Align the back side hole site.

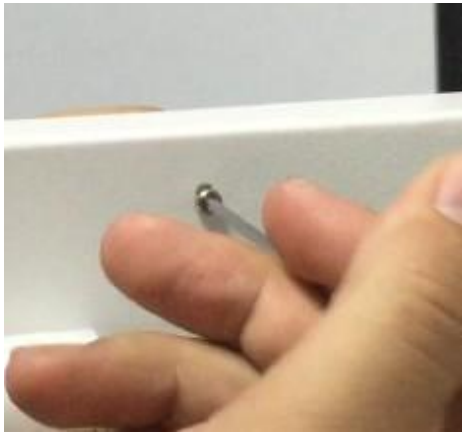


Install the screws M3*6-4pcs.



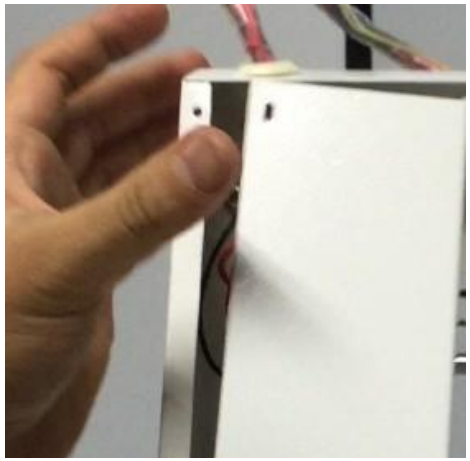
Align the front side ho

Install the three screws M3*6.

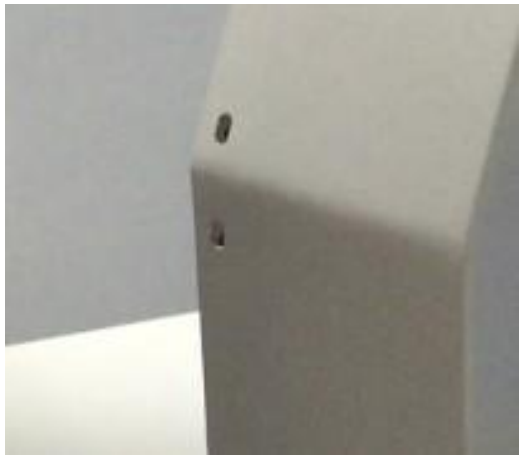


Use the socket head wrench to tighten all the screws ,complete

Installation of the left cover



Get ready the left cover plate.

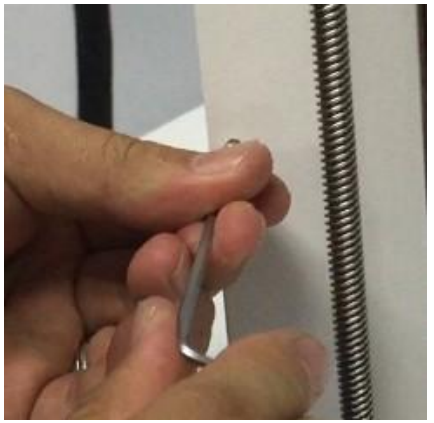


Align the back side hole.

Install the four screws M3*6.

Align the front side circle.

Install the three screws M3*6.



Use the socket head wrench to tighten all the screws ,complete.

Pls assembly the printer follow this above assembly diagrams and printing videos together.