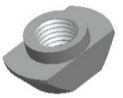
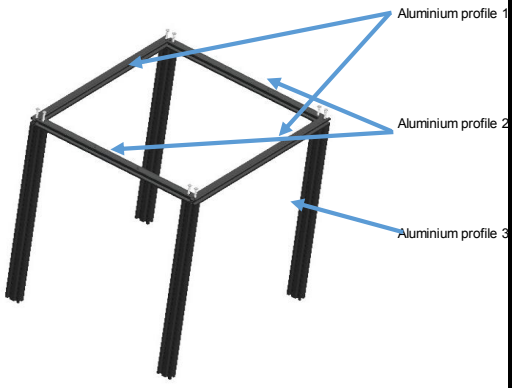
Step 1. Assemble base frame

Assemble parts specifications and quantity：

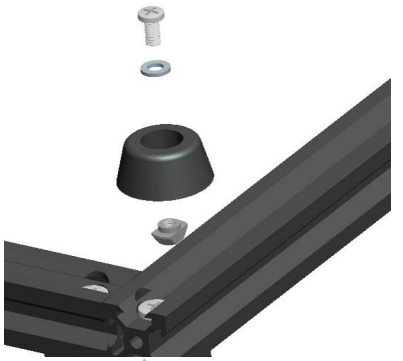
						
Aluminium profile 1 20*20*530mm 4pcs	Aluminium profile 2 20*20*460mm 2pcs	Aluminium profile 3 20*40*530mm 4pcs	Pad 4pcs	Screw PM5*25 12pcs	screw PM4*8 4pcs	Spacer M4 4pcs
						
T nut M4 4pcs						

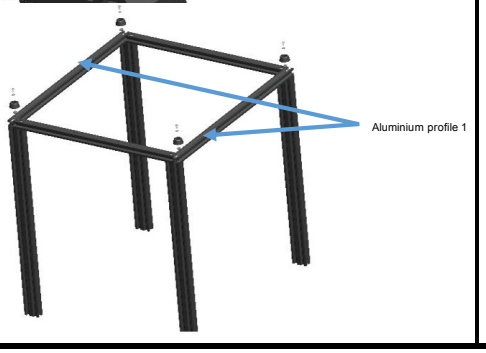
1.Lock the aluminium profile 1 2pcs, Aluminium profile 2 2pcs, aluminium 3 4pcs together by 8pcs screw PM5*25, same as the illustration.

Note: Before locking the screws, make sure the aluminum profile are aligned and vertical



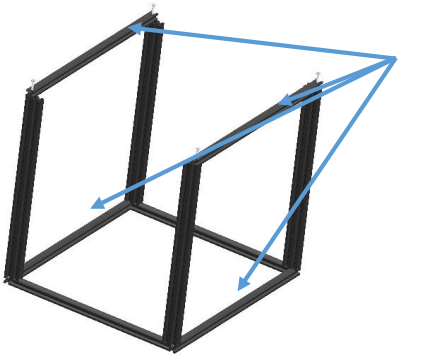
2.Assemble the pad, spacer, screw PM4*8, T nut M4 with the aluminium profile 1 together,distance from the end around 20mm, same as the illustration





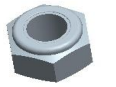
3.Lock the aluminium profile 1 2pc with 4pcs screw PM5*25

Note: Do not tighten too much, enable they can be adjusted in further step.



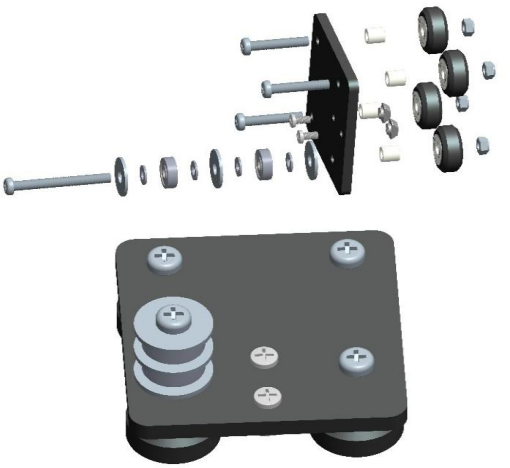
Step 2：Assemble slide plate

Assemble parts specifications and quantity：

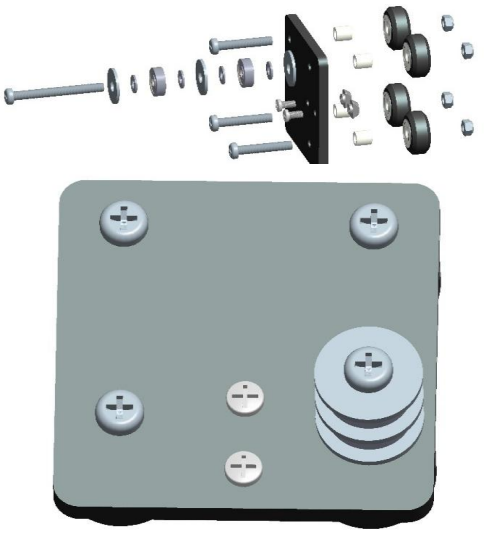
									
Base frame 1pcs	Bearing 625ZZ 4pcs	Slide plate 2pcs	Pulley 8pcs	Plastic pillar 8pcs	SpacerM5 8pcs	ScrewPM4*8 4pcs	T nut M4 4pcs	Spacer M6 6pcs	Locking nut M5 8pcs
									
Aluminium profile 2 20*20*460mm 2pcs	Screw PM5*30 6pcs	Screw PM5*50 2pcs	Screw PM5*25 4pcs						

1.Assemble 4pcs pulley with 3pcs PM5*30,1PC PM5*50,4pcs plastic pillar,2pcs bearing 625ZZ,3pcs M6 spacer,3pcs M5 spacer,2pcs screw PM4*8,2pcs T nut M4 4pcs, locking nut M5 together as same as the illustration, then, the left slide plate component is finished

Note: During assembling, make sure the position and the turn for all parts same as the illustration. The washer smooth surface need to connect with the bearing surface

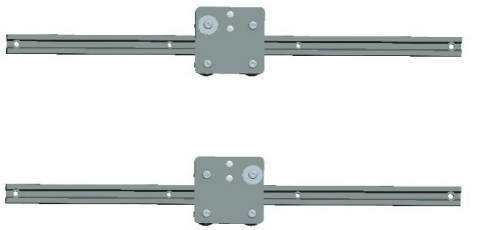


2.Assemble 4pcs pulley with 3pcs PM5*30mm,1PC PM5*50mm,4pcs Plastic pillar,2pcs bearing625ZZ,3pcs M6 spacer,3pcs M5 spacer,2pcs screw PM4*8mm,2pcs T nut M4, 4pcs locking nut M5 together as same as the illustration, then the right slide plate component is finished

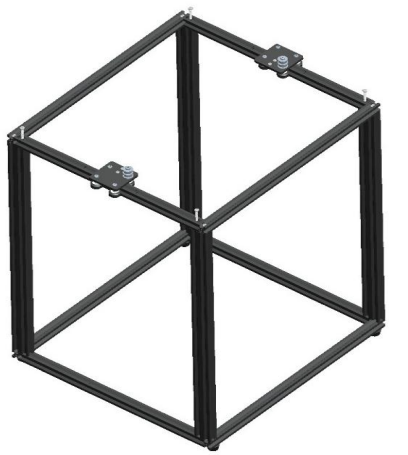


3.Put aluminum 2,2 pcs, through Left slide plate component and right slide plate component respective, as same as the illustration

Note: The pulley is on the side without hole, the slide plate is on the side with the four holes.



4.Put above aluminum 2 components into the end of the aluminum frame 3 of the bottom frame, then secured by 4pcs screw PM5*25, as same as the illustration.

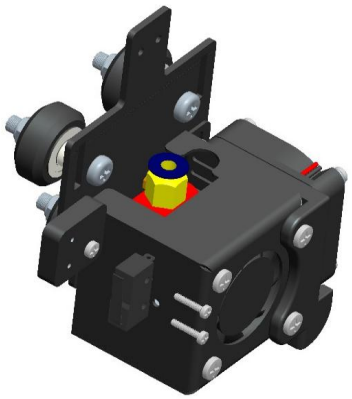


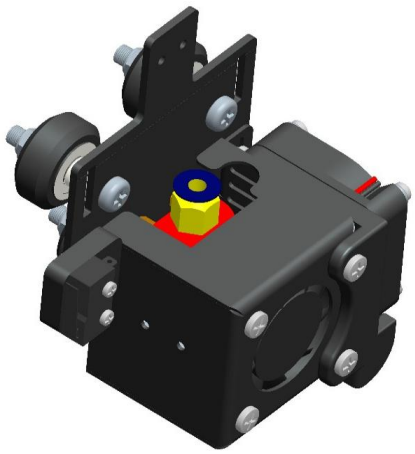
Step 3：Assemble printing head

Assemble parts specifications and quantity：

					
Bottom frame 1pc	Aluminium profile4 20*20*484mm 1pc	Printing head component 1pc	Switch 1pc	Screw PB2*10 2pcs	

1.Assemble the printing head component with switch, 2pcs screw PM2*15, nut M2 together,same as the illustration



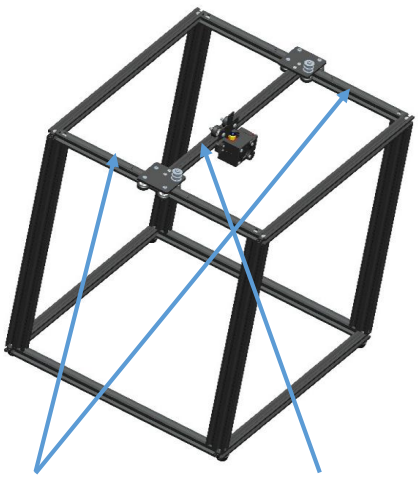


2.Insert the aluminum profile 4 into the printing head component,same as the illustration

3.Put the aluminum 4 component into the T nut of the left and right slide plate component,screw the screw PM4*8 of the slide plate,same as the illustration. Move the aluminum profile 4 front and back,make sure it can move freely,then lock the screw PM4*8, remove the aluminum 4,ensure it can move freely, lock the screw PM5*25 of the aluminum 2, move the aluminum 4 again to make sure the movement is flexible. Lock the screws PM5 * 25 of aluminum profile 2,move the aluminum 4 again to make sure the movement is flexible, otherwise, please adjust it again, make sure tthe sliding table is flexible and without gap shaking after locking the screws

Note:The distance between the aluminum 4 and aluminum 2 is 3mm

M4 T nut assembly techniques: First, let M4 nut and aluminum groove aligned, put into the aluminum slot, reverse loosen by a screwdriver, release M4 T Nut over the aluminum profile slot, and then positive tightening



Aluminum 2 Aluminum 4

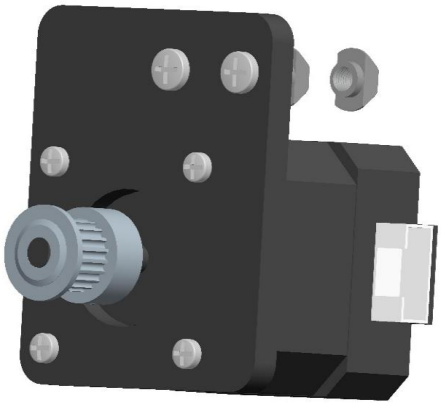
Step 4：Assemble XY axis motor and wheel

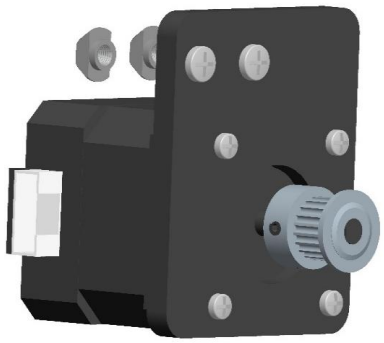
Assemble parts specifications and quantity：

								
Spacer M6 6pcs	Spacer M5 8pcs	Motor base plate 2pcs	pulley base plate 2pcs	Bearing 625ZZ 4pcs	Screw PM5*35 2pcs	Screw PM3*10 8pcs	Screw PM4*8 10pcs	Nut M5 2pcs
								
Motor 2pcs	Base frame compponent 1pc	T nut M4 10pcs						

1.Lock 2pcs motor and 2pcs motor base plate with the screw PM3*8. Put 2pcs T nut M4 and 2pcs screw PM4*8 through to the motor base plate, then the left motor component and right motor component is finished.

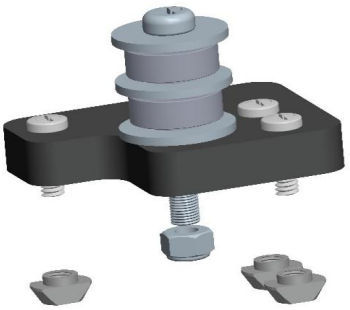
Note: The motor outlet is consistent with the illustration

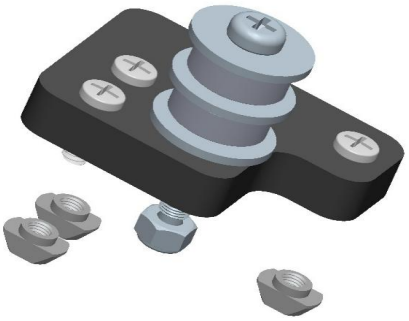




2.Take 1pc pulley base plate, through spacer M6,M5,bearing 625ZZ, screw PM5*35,then lock the nut M5. Take 3pcs T4 nut,3pcs screw Pm4*12mm, through pulley base plate,then the left pulley component and right pulley component is finished

Note: Attention the screws position and trun when assembling，make sure the smooth surface of the spacer connect with the bearing surface.





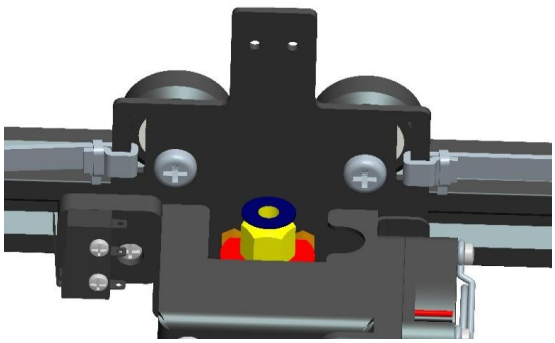
3.Fix the left motor component,right motor component,left pulley component,right pulley component and aluminum by T nut M4,as smae as the illustration

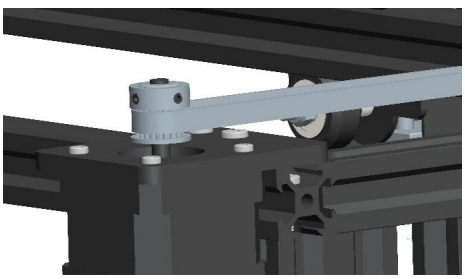
Step 5：Assemble belt

Assemble parts specifications and quantity：

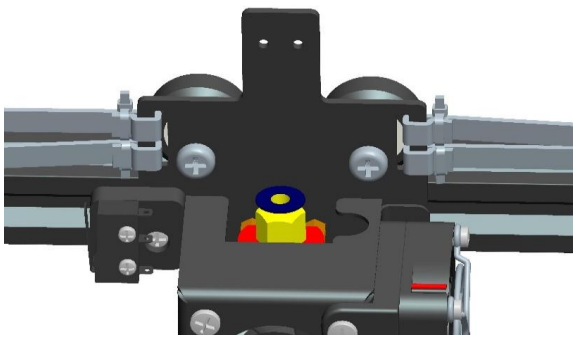
							
Main frame 1pc	Belt 2pcs	Tie 4pcs					

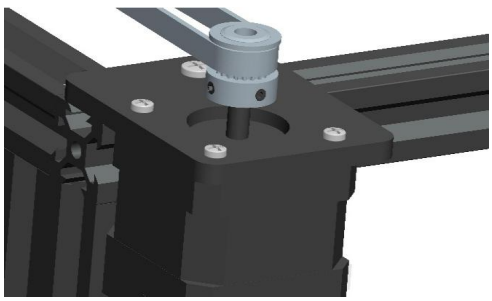
1.Pass through the belt as same as the illustration ,let the rack is wrapped with a motor gear, determine direction of the belt,tighten the bottom of the metal slot of the printing head component with a tie. Adjust the distance between the motor gear and the belt，lock 2pcs meter screw of the gear.





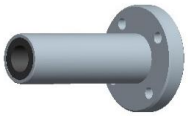
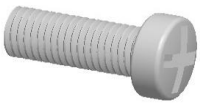
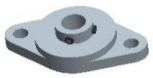
2.Pass through the belt as same as the illustration,let the rack is wrapped with a motor gear, determine direction of the belt, tighten the top of the metal slot of the print head component with a tie. Adjust the distance between the motor gear and the belt, lock 2pcs meter screw of the gear



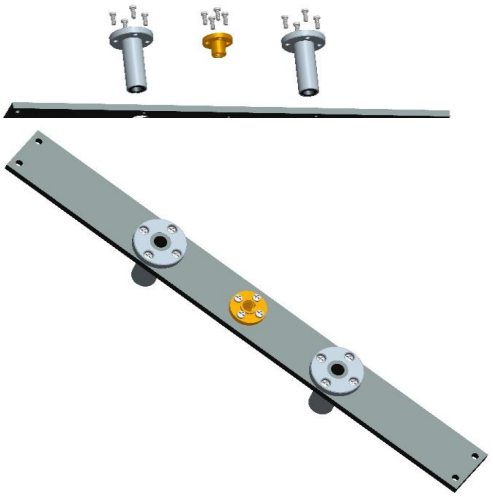


Step 6：Assemble Linear bearings and Z-axis motor

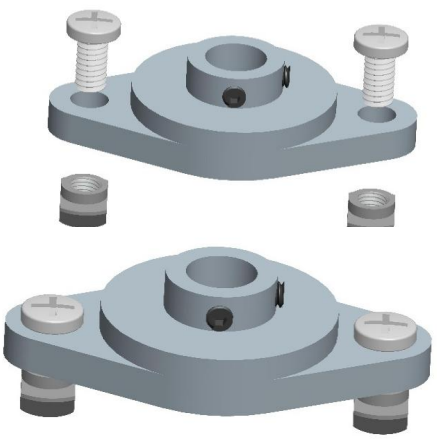
Assemble parts specifications and quantity：

				
footlock 2pcs	Linear bearing 4pcs	Screw nut 2pcs	Screw PM3*8 24pcs	Z-axis motor component 2pcs
				
Screw PM4*8 8pcs	T nut 8pcs	Bearing seat 2pcs		

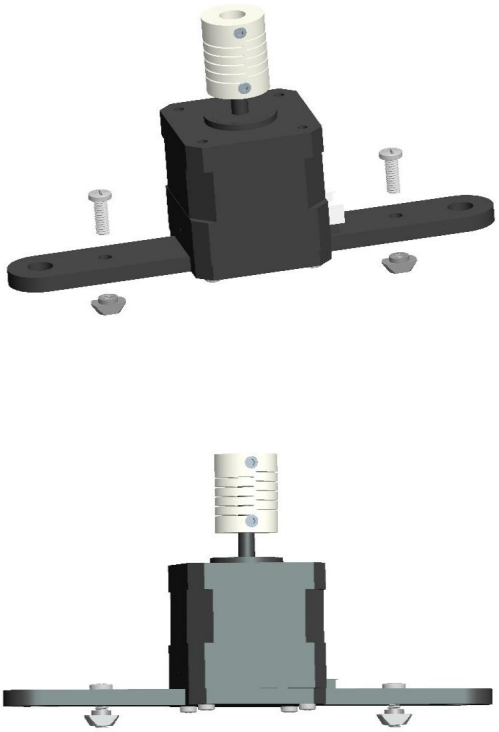
1.Assemble 1pc footlock , 2pcs bearing seat, 1pc screw nut,12pcs screw PM3*8 together, same as the illustration, total need to assemble 2 set.



2.Assemble 1pc bearing,2pcs screw PM4*8, 2pcs T nut M4 together,same as the illustration, total need assemble 2set.



3.Assemble 1pc Z axis motor component,2pcs screw PM4*8mm,2pcs T nut M4 together, total need to assemble 2 set



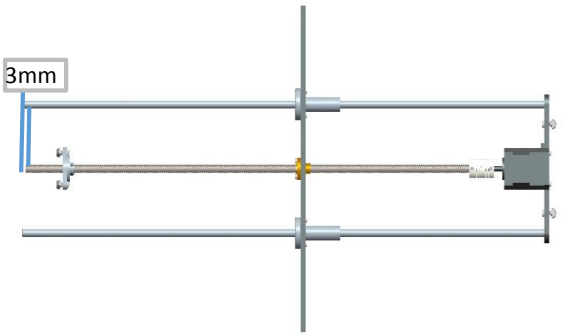
Step 7：Assemble Z axis motor component

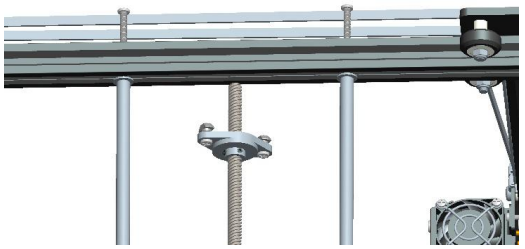
Assemble parts specifications and quantity：

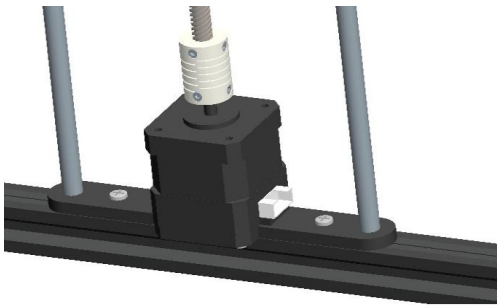
							
Base frame component 1pc	Z axis motor holder 2pcs	footlock component 2pcs	Bearing seat component 2pcs	Pole Φ8*528 4pcs	Pole T8*453 2pcs	Screw PM4*20 4pcs	spacer M4 4pcs

1.Insert the solid end of the pole to the hole on acrylic board of Z axis motor holder, insert the barrel of the motor holder into the hole，do not let the pole stand out,same as the illustration.Then, put the footlock component with the pole Φ8*528 together. Thread the the pole T8*453 through the T nut, connect with the coupling hole on the motor,put the bearing seat component on pole T8*453 same as illustration（The T nut is at the outer end),then the Z axis carriage is finished. Total need to assemble 2set

Note：When assemble the pole, keep Pole T8*453 short 3mm than the pole Φ8*528, same as the illustration





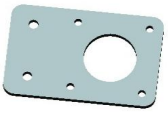


2.Adjust the T nut of the acrylic plate of the Z-axis carriage,put the Z-axis carriage in the aluminum profile 2 , the positionin same as the illustration. Align PoleΦ8*528 with the hole of the aluminum profile, let screw PM4 * 20 through the holes of the aluminum profile 2,put the spacer M4 on it, then connect with the M4 hole of the PoleΦ8*528,same as the illustration；rotate the Pole T8*453，slide the footlock component and the bearing seat to the top, lock the 2pcs screws PM4*20 in the aluminum profile 2 ,， then lock the T4 nut and meter screw of the bearing seat, rotate the Pole T8*453,drop the footlock down，make sure it can move freely. Otherwise, please lossen the meter screw,readjust it again. Finally, lock the 4pcs screw of the coupling , T nut,screw on the acrylic plate, rotate the pole T8*453 again,make footlock can slide up and down freely.

3.Repeat the number 2，assemble other Z aixs carriage,same as the illustration.

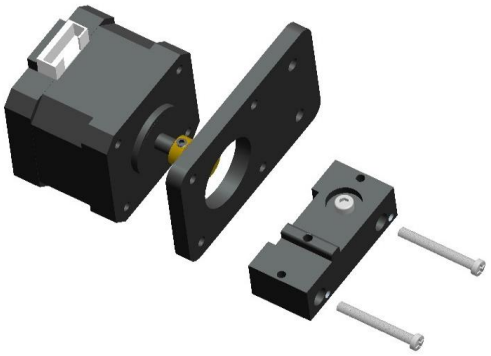
Step 8：Assemble feeding motor

Assemble parts specifications and quantity:

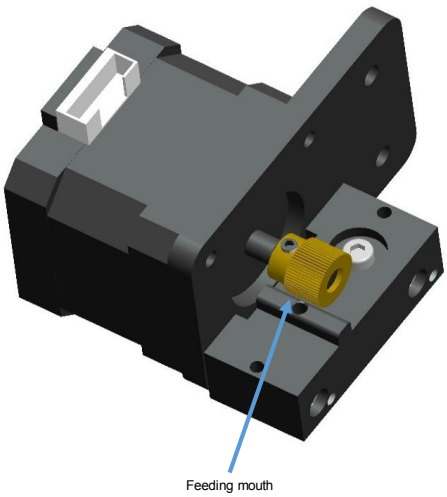
					
Feeding motor 1pc	Motor holder 1pc	Feeding seat 1pc	Feeding seat component 1pc	screw HM5*10 1pc	
					
Spring Φ8.3*22*Φ1.2 1pc	Air cock Φ4 1pc	Screw PM3*20 1pc	Screw PM3*25 2pcs	T nut M4 2pcs	Screw PM4*8 2pc

1.Secure feeding motor, motor holder, feeding seat with 2pcs screw PM3*25

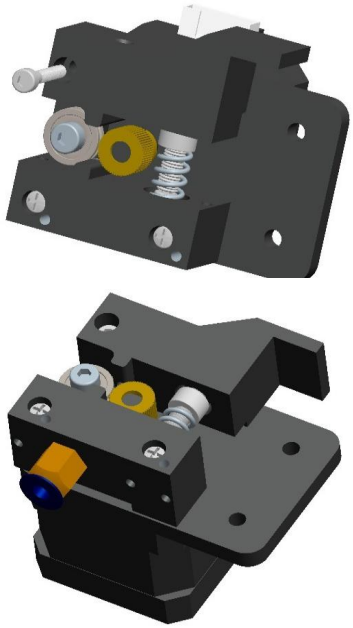
Note：The position for all parts can not be misplaced



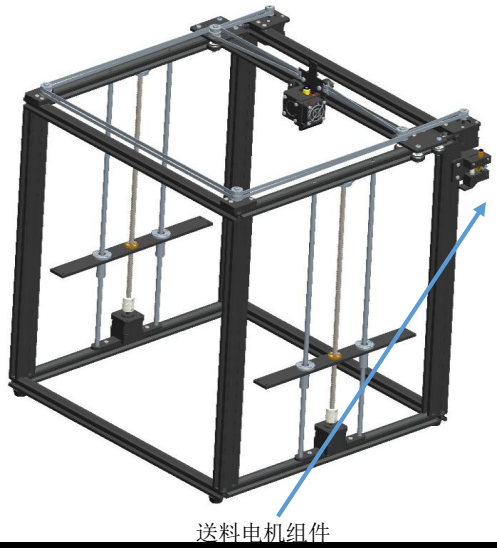
2.Loosen the meter screw on the motor gear，adjust the gear position,once it is smae as the illustration, lock the meter screw



3.Assemble the feeding component,screw HM5*10.spring,screw PM3*20 and Air cock togheter, same as the illustration



4.Lock the feeding motor component with 2pcs screw PM4*8 and T nut M4,same as the illustration

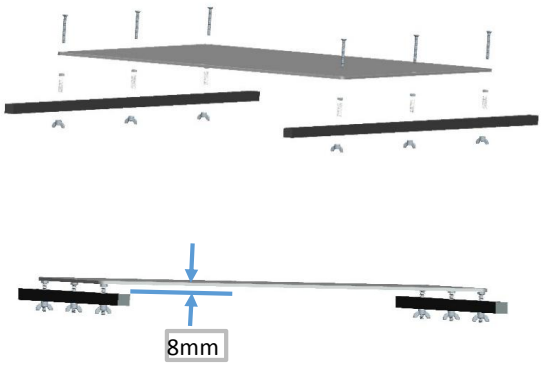


Step 9：Assemble printer plateform

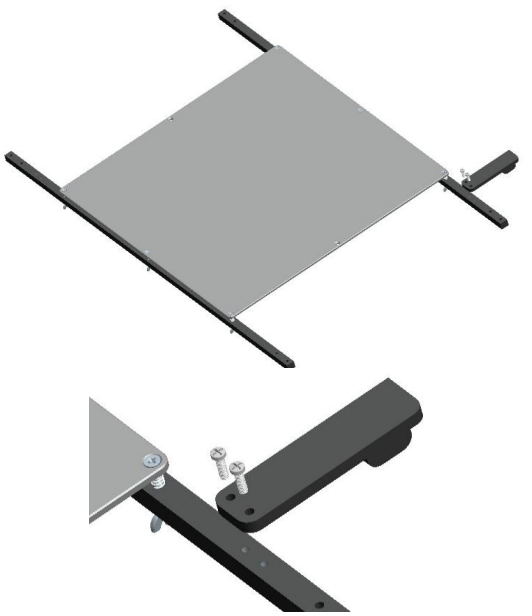
Assemble parts specifications and quantity:

								
Main frame 1pc	Heat bed 330*330*3 1pc		Beam 2pcs		Butterfly nut M3 6pcs		Spring 6pcs	
								
Nut M3 6pcs	Screw KM3*30 6pcs	Screw PM4*12 8pcs	Towline bracket 1pc	Screw PM3*10 2pcs				

1. Put 6pcs KM3 * 30 screws through the heat bed,then lock them with the nut M3, same as the illustration,put spring through the KM3 * 30 screws，then, extending from the hole of the beam,screw into M3 butterfly nuts, adjust and keep 8 mm between the heat bed and the beam



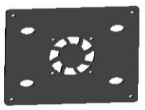
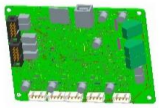
2. Assemble the towline bracket and beam together with screw PM3*110, same as the illustration



3.Rotate 2pcs Pole T8*453,keep the left and right footlock at the same plane, secure the heat bed component and footlock with 8pcs screw PM4*12. The towline bracket is close to the side of the feed motor component, rotate the screw in the same direction，let the platform move up and down, make sure it can move freely, if not freely, please lossen the screw PM4*12 to adjust it untill it can move freely

Step 10：Assemble electronic board

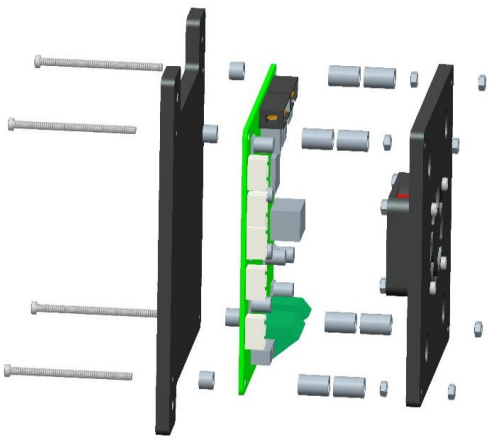
Assemble parts specifications and quantity:

					
Main frame 1pc	Cover 1pc	board holder 1pc	electronic board 1pc	Plastic pillar 1 Φ4* Φ7*5 4pcs	Plastic pillar2 Φ5*Φ 8*11 8pcs
					
Fan 4010 1pc	Screw PM3*20 4pc	Screw PM3*45 4pc	T nut M4 3pcs	Nut M3 12pcs	Screw PM4*8 3pc

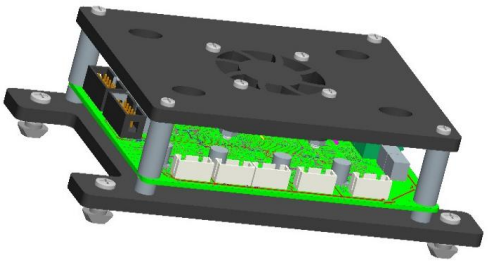
1.Secure 1pc cover and 1pc fan with 4pcs screw PM3*20 and nut M3

Note: The fan's position same as the illustration, the wind direction shuld be downward

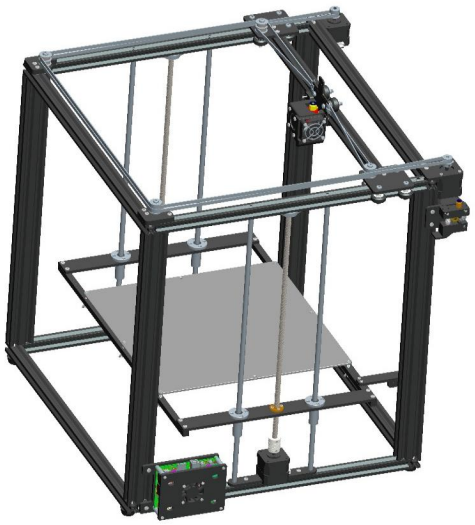
2.Put the scew PM3*45 through the cover, plastic pillar2,electronic board,Plastic pillar 1,board holder the lock them by M3 nut, same as the illustration.

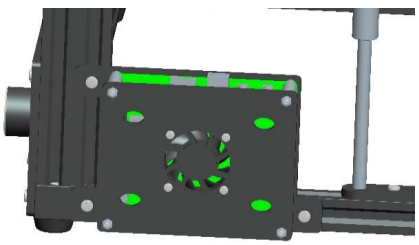


3.Put 3pcs screw PM4 * 8 through the board holder,then lock them with the T nut M4 screw on the boat nut M4



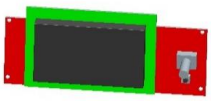
4.Fix the electronic board component in the groove of aluminum profile 2 by T nut, then lock them by screw PM4*8, same as the illustration.



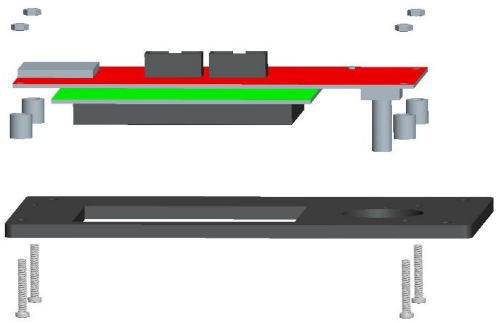


Step 11：Assemble LCD

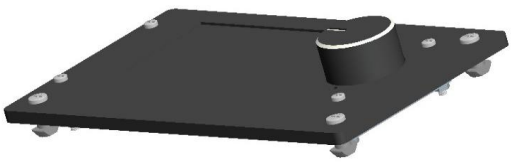
Assemble parts specifications and quantity：

						
Main frame 1pc	LCD 1pc	LCD holder 1pc	T nut M4 3pcs	Screw PM4*8 3pcs	Plastic pillar 3 Φ5* Φ8*9 4pcs	Knob 1pc

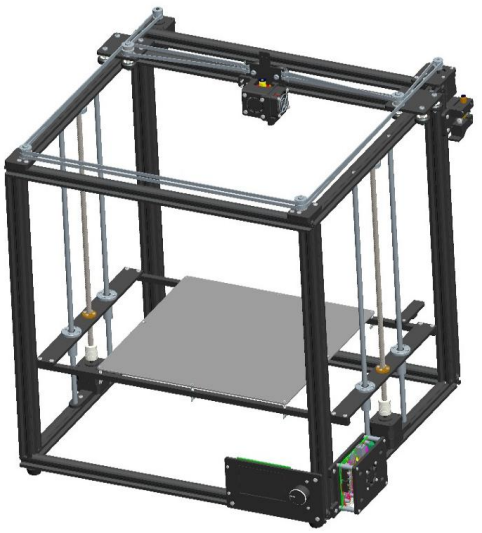
1.Put the screw PM3 * 20 through the LCD holder,Plastic pillar 3,PCB board of the display, then lock them by M3 nut

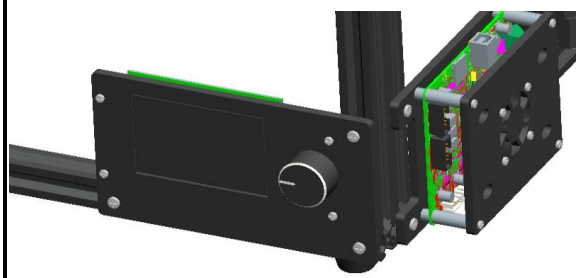


2.Put 3pcs screw PM4*8 through LCD holder, then, lock by nut M4,then insert the knob, same as the illustration



4.Fix the LCD component in the groove of the aluminum profile by T nuts,then lock the screw PM4*8,same as the illustration

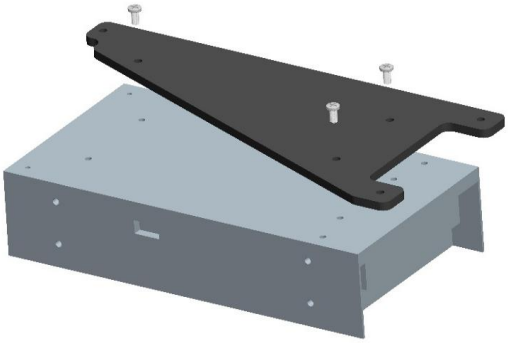




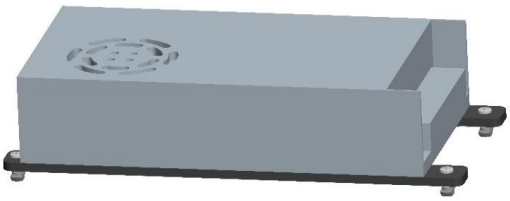
Step 12：Assemble power supply

Assemble parts specifications and quantity：

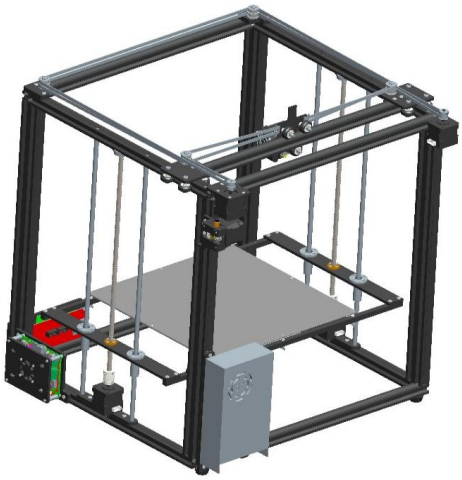
						
Main frame 1pc	Power supply 30A 1pc	Power supply holder 1pc	T nut M4 3pcs	Screw PM4*8 6pcs		



2.Put 3pcs screw PM4*8 through the power supply holder,the lock T nut M4, same as illustration

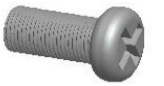


3.Fix the power supply component in the groove of aluminum profile by 3pcs screw PM4*8, same as illustration



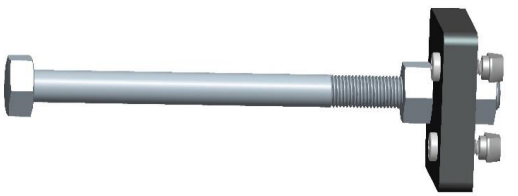
Step 13：Assemble feeding holder

Assemble parts specifications and quantity：

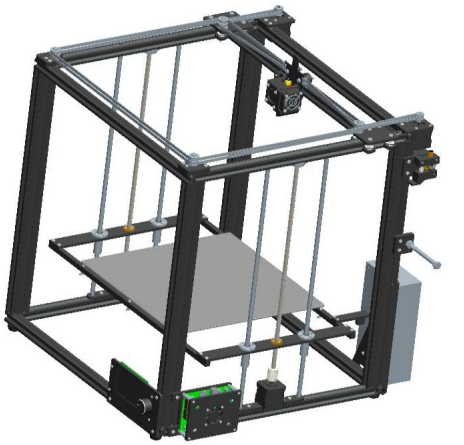
					
Main frame 1pc	Hexagon Screw M8*110 1pc	T nut M4 2pcs	Screw PM4*12 2pcs	Nut M8 2pcs	plate of feeding holder 1pcs

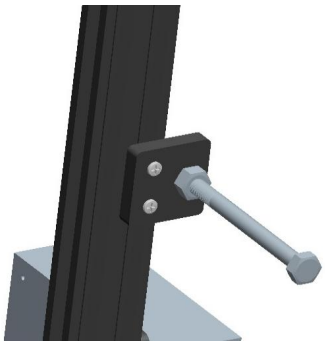
1.Assemble 1pc plate of feeding holder with 1pc Hexagon Screw,2pcs nut M8 together, same as the illustration

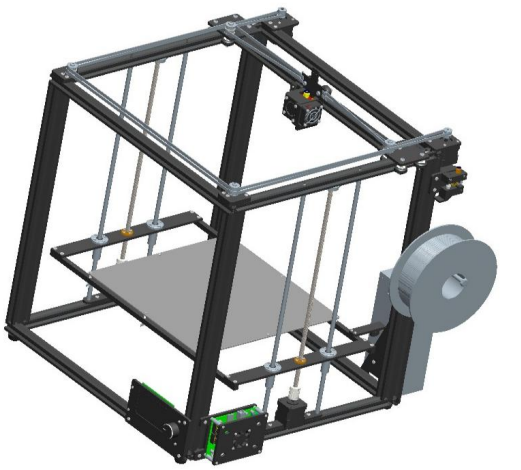
2.Put 2pcs screw PM4*8 through the plate of feeding holder ,then lock with T nut M4



3.Fix feeding holder component in the groove of aluminum profile by 2pcs screw PM4*12,same as the sillustration (Put the material tray hang onto the rod of the screw)

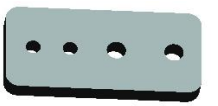






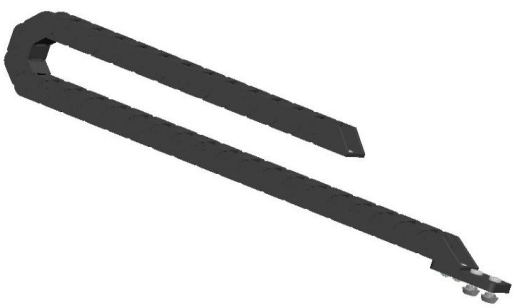
Step 14：Assemble Towline 1

Assemble parts specifications and quantity：

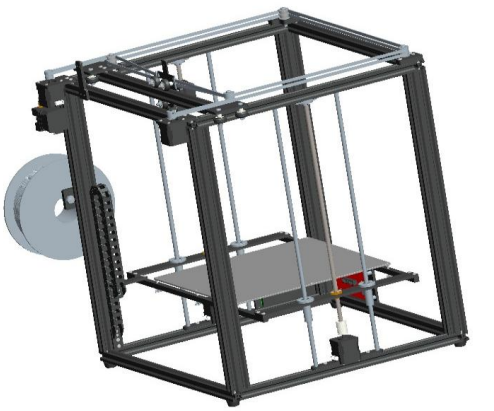
						
Assembled main body 1pc	Towline 1 1pc	Bottom plate 1pc		Screw KM3*10 2pcs	Nut M3 2pcs	T nut M4 2pcs	Screw PM4*8 2pcs
							
Screw KB3*8 2pcs							

1.Assemble 1pc towline 1 and 1pc bottom plate with 2pc screw KM3*10 and 2pcs nut M3,same as the illustration

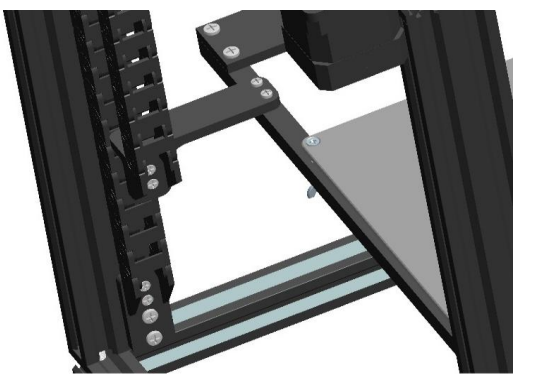
2.Put 2pcs screw PM4*8 through the bottom plate of the towline,then lock the T nut M4



3.Fix towline 1 component in the groove of aluminum profile with 2pcs screw PM4*8,same as the illustration

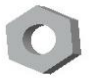


4.Align the other end of the towline 1 with the towline bracket hole on the beam,then lock with 2pcs screw KB3*8



Step 15：Assemble Towline 2

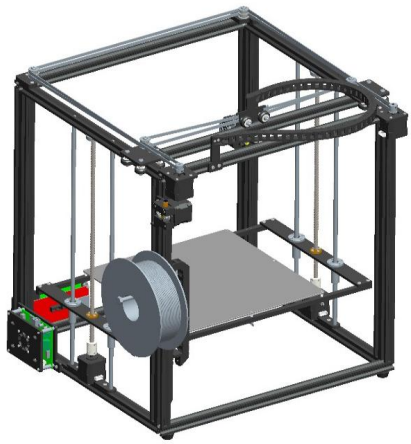
Assemble parts specifications and quantity:

					
Main frame1pc	Towline 2 1pc	Plate 1pc	Screw KM3*6 2pcs	Nut M3 2pcs	Screw KM3*10 2pcs

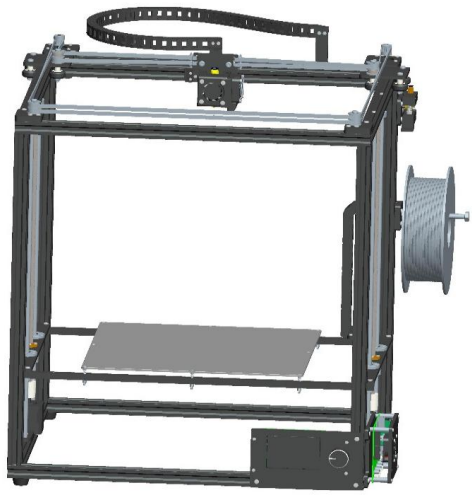
1.Assemble towline 2 and plate with 2pcs KM3*10, 2pcs nut M3,lock the screw same as the illustration

2.Put 2pcs screw PM4*8 through plate, lock with T nut M4,same as illustration. Cut the Decorative strip to the appropriate length，press them into the aluminum profile grooves,same as the illustration

3.Fix towline 2 component in the groove of aluminum profile with 2pcs screw PM4*8,same as the illustration



4.Align the other end of towline 2 with the hole of the printing head component, then, lock them with 2pcs screw KM3*6

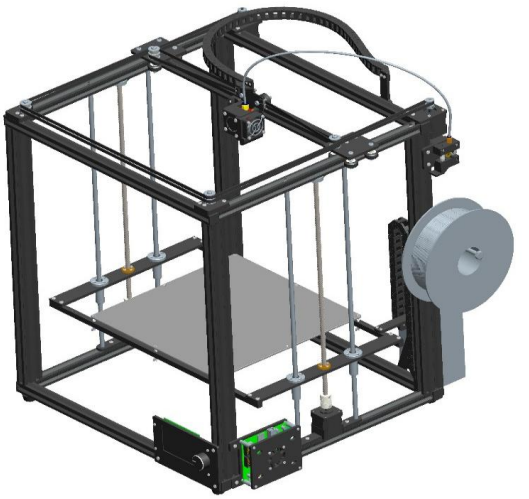


Step 16：Assemble Decorative strip and Feeding tube

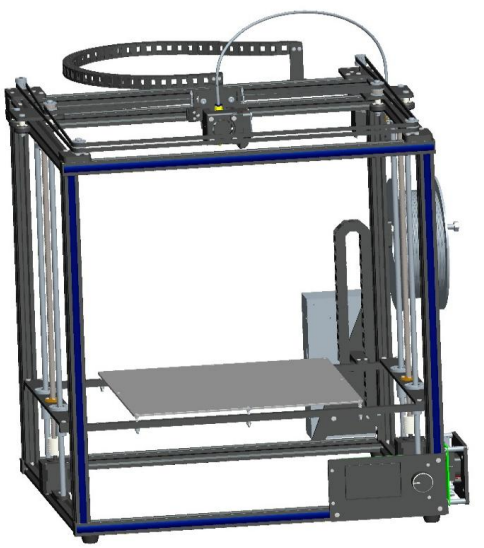
Assemble parts specifications and quantity:

				
Main frame 1pc	Decorative strip 1R	Feeding tube (Attached printing component) 1pc		

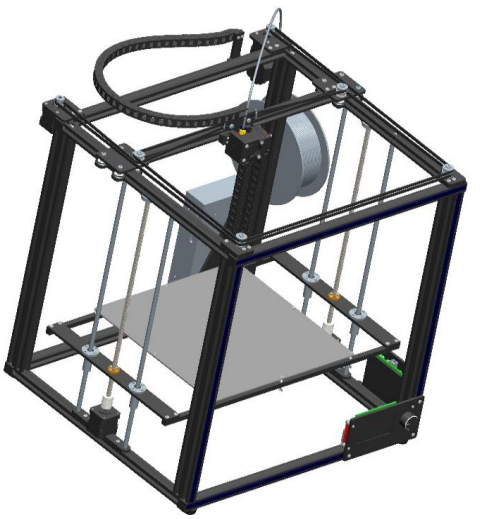
1.Put the feeding tube into the hole of the Air cock,insert feeding tube，press the outer plastic ring of Air cock，loosen the plastic ring,stuck the feeding tube，same as illustration,move the feeding tube up and down to make sure it is clenched



2.Cut the decorative strip to the appropriate length，press them into the aluminum profile grooves,same as the illustration

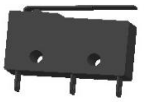


3.Align the end cover with the end aluminum profile,then press the end cover in the groove of the aluminum profile,same as illustration.

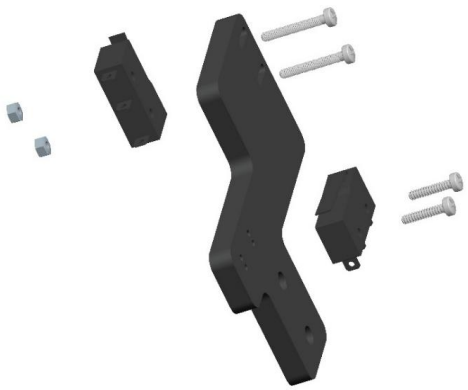


Step 17：Assemble limit switch

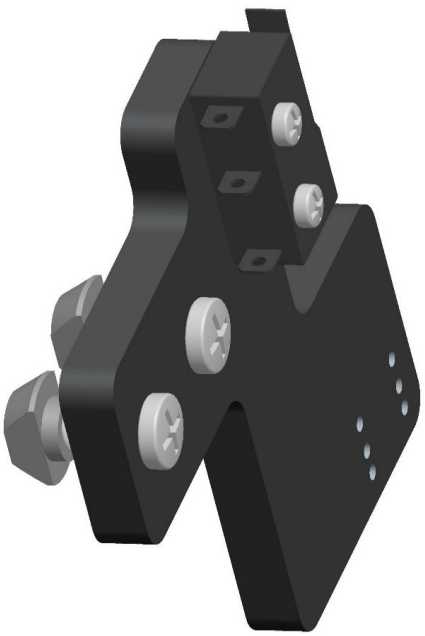
Assemble parts specifications and quantity：

							
Maine frame 1pc	switch 2pcs	Switch seat 1pc	Screw PB2*10 4pc	T nut M4 2pc	Screw PM4*8 2pc	Screws PM2*15 2pc	Nut M2 2pc

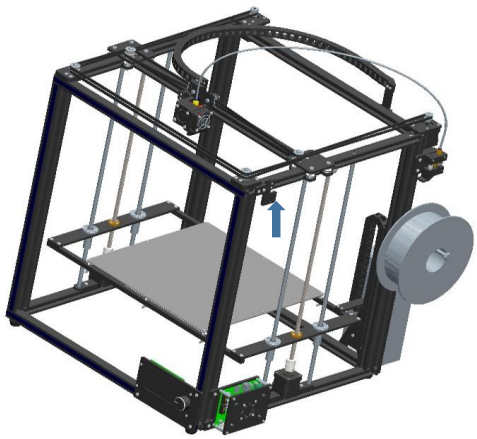
1. Put 2pcs screw PM2*15 and 2pcs screws PM2*10mm through switch seat and switch, then lock with 4pcs nut M2,same as illustration

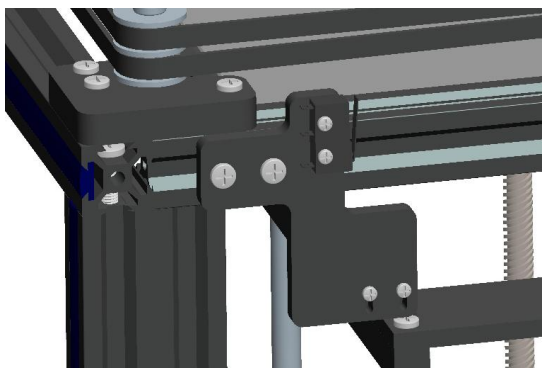


2.Put 2pcs screw PM4*8 through switch component, then lock with T nut M4, same as illustration



3.Fix switch component in the groove of aluminum profile with 2pcs T nut, then lock 2pcs screw PM4*8,same as the illustration

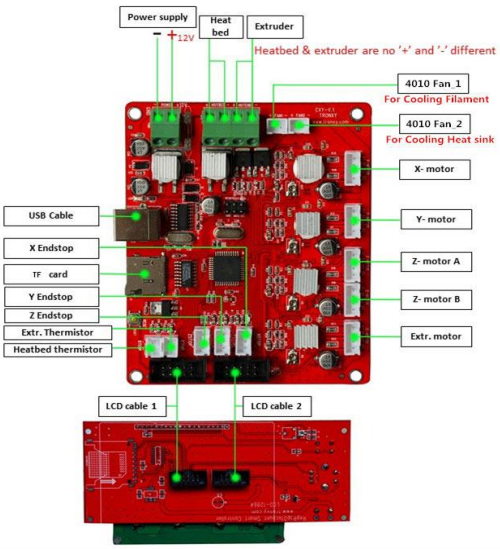




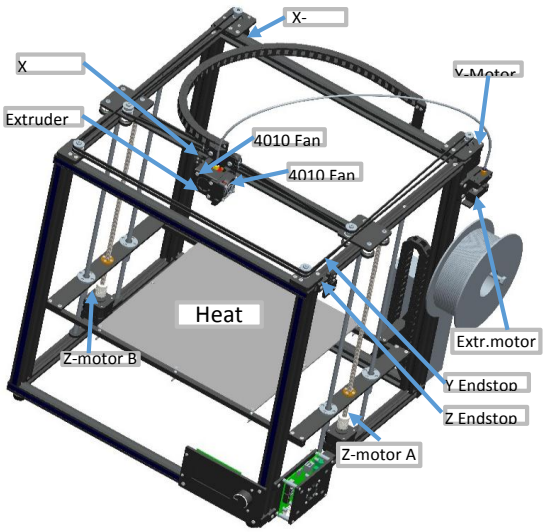
Step 18：Connecting wire

Assemble parts specifications and quantity：

				
Main frame 1pc	Switch wire component 2pcs	USB cable 1pc	LCD connect line 2pc	Motor wire 5pcs
				
tape 1R	Red and black wire 2pc	Power cable 1pc	Towline 1 wire component: 1pc	Towline 1 wire component: 2pcs



connection diagram for the electronic board and the LCD



Printer wiring parts schematic

1.Open the cover of the electronic board

2.Connect the terminal of the electronic board and the LCD with the LCD cable 1,LCD cable 2,same as above illustration,

3.Plug the motor wire to the terminal of the electronic board, same as above illustration

4.Plug the switch wire of the X,Y,Z to the terminal of the electronic board,same as above illustration

5.Plug the outlet connector of the heat bed to the heatbed thermister of the electronic board, then lock the soaked tin wire and the electronic board together

6.Insert the wire terminals of the printing head fan into the terminal of 4010 Fan-1, 4010 Fan-2 on the electronic board . Plug the terminal of the printing head heading plate to the terminal of the Extr.Thermistor, then lock the soaked tin wire of the heating plate and Extruder terminal of the electronic board.

7.Connect the electronic board with the power supply, the red wire connect to the positive,the black wire connect to the negative.

8.Connect the red soaked tin wire to the L terminal of the power supply, the black soaked tin wire connect to the N terminal of the power supply. The double color soaked wire connect to the ground terminal

9.Plug the power supply cable,adjust the printer,make sure it can run,wrap the wire with the tape.Finally, close the cover。

Power supply terminal