User Manual

If you have any problems with the product, you can obtain the relevant services through the following channels :

Facebook after - sales group: www.facebook.com/groups/anet3dprintersupport

Anet official website: www.anet3d.com

After - sales service email: anet@anet3d.com

CONTENTS

Preface

Dear customer:

Thanks for choosing and using Anet 3D printer. For your convenience, please read the instructions carefully before using and follow the instructions strictly.

Special Version:

1. All the contents in this manual have been checked carefully. If there is any misprint or misunderstanding of them, Anet reserves the right to interpret it.

2. This user manual is for reference only and does not constitute any form of commitment.

3. It is recommended to use Anet original filament.

1. Use Instruction

In order to prevent damage to you and others in the process of using, Please be aware of the following:

● Please do not attempt to use the machine in any way undescribed in the instructions to avoid accidental personal injury and property damage.

● Please do not place this machine near inflammable and explosive materials or high heat sources. Please place this machine in a ventilated, cool and dust free environment.

● Please do not place the printer on a larger vibrating or other unstable platform. The shaking of the machine will affect the printing quality.

● Please do not replace the power line of other products during installation. Please use the original power line supplied with the machine. The working power supply uses 115V/230V AC. The power plug must be plugged into the three holes socket with ground wire to avoid damage to components or accidents such as fire and electric shock.

● Please do not touch the nozzle and heating bed during the printer working to prevent high temperature burns and personal injury.

● Please do not wear gloves or wrappers when operating the machine in case the movable parts cause entanglement and cutting damage on the human body parts.

● After printing, please use the remaining temperature of the nozzle to clean up the filament on the it with the help of tools. Do not touch the nozzle directly with your hands during cleaning to prevent scalding.

● Please often do product maintenance. In the circumstance of power off, please regularly clean the printer body with dry cloth to wipe away dust and bonded printing materials, foreign objects on guide rails, and lubricating oil is recommended for sliding parts, screw rods and bearing parts.

● Children under 14 years old or people above 60 years old, please use this machine under the adult people to avoid personal injury.

● Some filaments will produce slight odor but it won't make people feel uncomfortable

- Self-disassembly or modification may cause damage or abnormal performance, and your machine will no longer enjoy warranty service.
- It is recommended to use in a well-ventilated environment. Please cut off the power supply after using.

2 Installation Instruction

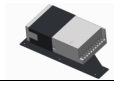
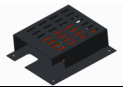
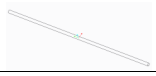
●Please make sure the packing is intact before receiving the goods.

●After unpacking, please check carefully whether the parts list is consistent with the physical parts.

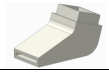
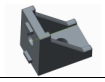
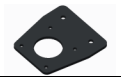
●If you have any problems, please contact your supplier or Anet in time.

3 Spare Parts List

A8 Plus Parts List 1

No.	Picture	Name	Qty.	No.	Picture	Name	Qty.
1		X axis aluminum profile 472mm	3	11		Power supply kit	1
2		Y axis aluminum profile 422mm	2	12		Mainboard kit	1
3		Z axis aluminum profile 500mm	2	13		Extruder kit(Black)	1
4		X axis guiding rod 496mm	2	14		Environmentally friendly rubber pillar washer	4
5		Y axis guiding rod 442mm	2	15		Display screen base	1
6		Z axis guiding rod 486mm	2	16		Linear bearing kit	7
7		Z axis screw rod 462mm	2	17		Heating bed shelf	1
8		X axis motor	1	18		Heating bed support	2
9		Y axis motor	1	19		Leading rod - limit switch mounting block with pulley	1
10		Z axis motor	2	20		End cap	6

A8 Plus Parts List 2

No.	Picture	Name	Qty.	No.	Picture	Name	Qty.
21		Guiding rod shaft sleeve	2	31		Limit switch	3
22		Leading rod fixed block	3	32		Z axis limit switch holder	1
23		5015 air blower bag	1	33		Limit switch line	3
24		Wind mouth	1	34		GT2 belt bag 2m	1
25		Fan bag	1	35		Z1 axis motor fixed plate	1
26		Spare parts	1	36		Z2 axis motor fixed plate	1
27		Corner bracket	2	37		Z axis guiding rod fixed plate	2
28		Y axis belt bearing fixed kit	1	38		Y axis motor fixed plate	1
29		Black winding pipe bag	1	39		Power outlet	1
30		Rubber finger cot	10	40		M4*25 cross recessed countersunk screw M4*14 cylindrical head screw M4 hand screw	10

A8 Plus Parts List 3

No.	Picture	Name	Qty.	No.	Picture	Name	Qty.
41		Tool bag	1	52		Filament holder kit 2	1
42		PLA filament*10m	1	53		Protective tube bag(10A/15A)	2
43		FPC grey ribbon line bag 1000mm	1	54		Screw bag 2 （M3*20/M3*25 、M5*20/M5*30）	25
44		Red and black belt U-shaped cross line (Double head)	1	55		Screw bag 3 (KM3*10/KM4*14/KM2*10/KM3*6)	19
45		Power line	1	56		Screw bag 4 （M4*10/ KB2.3*12/ M3*4）	14
46		A8 plus motor line bag	1	57		Screw bag 5 （M3*6、M3）	20
47		Heating bed line	1	58		Screw bag 6 （M4*6）	26
48		Left Z axis screw rod nut support	1	59		Screw bag 7 （M4*8）	34
49		Right Z axis screw rod nut support	1	60		Screw bag 8 （M4 T nut）	33

50		A8 Plus electronic data (TF card, reader)	1	61		Heating bed 300*300*3mm Tempered glass	2
51		Filament holder kit 1	1	62		Display screen	1

4 Product Parameter

Model: A8 PLUS	Nozzle diameter: 0.4mm
Layer precision: 0.1-0.4mm	Product dimension: 612*462*573mm
Printing speed: 40-120mm/s	Product weight: 10±0.1kg
XY axis position precision: 0.015mm	Packing dimension: 580*375*175mm
Z axis position precision: 0.004mm	Packing weight: 12.1±0.1kg
Printing material: PLA, ABS, HIPS etc.	Build volume: 300*300*350mm
Filament tendentiousness: PLA	LCD: 12864 LCD
Filament diameter: 1.75mm	Offline printing: Yes
Software language: English	Support file format: G-Code、Gco
Moulding support automatically: Yes	Operating systems: Windows, MAC
Slice software: Cura	Environmental requirements: Temperature 0-40℃ Humidity 5-80%

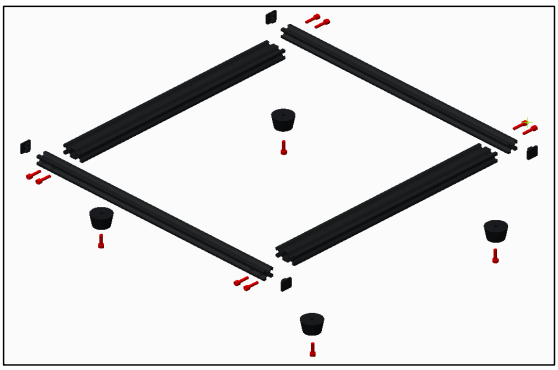
5. Name of Parts

Step 1

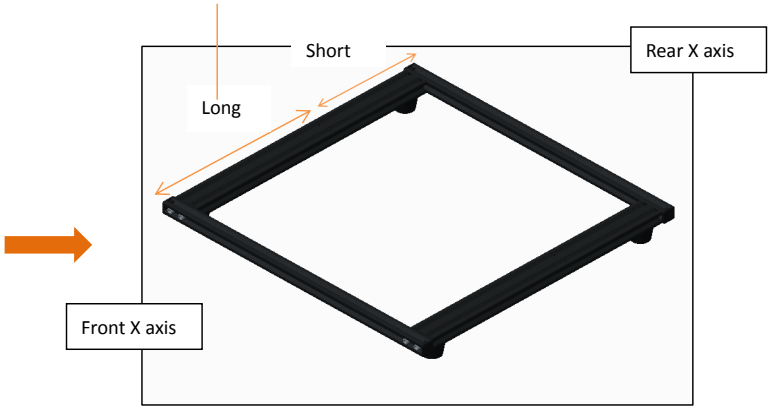
No.	Name	Qty.
1	X axis aluminum profile 472mm	2
2	Y axis aluminum profile 422mm	2
3	End cap	4
4	Environmentally friendly rubber pillar washer	4
5	M5*20 socket hexagon screw	12

The Y axis is separated from the hole position, the front section is long, and the rear section is short.

Before assembly



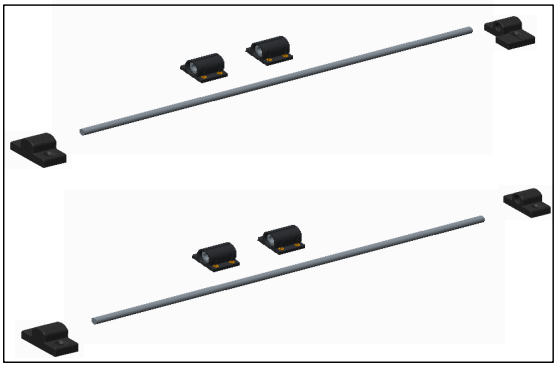
After assembly



Step 2

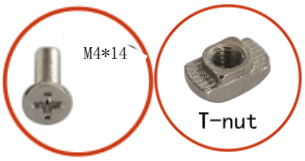
No.	Name	Qty.
1	Y axis guiding rod 442mm	2
2	Linear bearing kit	4
3	Leading rod fixed block	3
4	Leading rod -limit switch mounting block with pulley	1
5	Limit switch without pulley	1
6	Self-tapping screw KB2.3*12	2

Before assembly



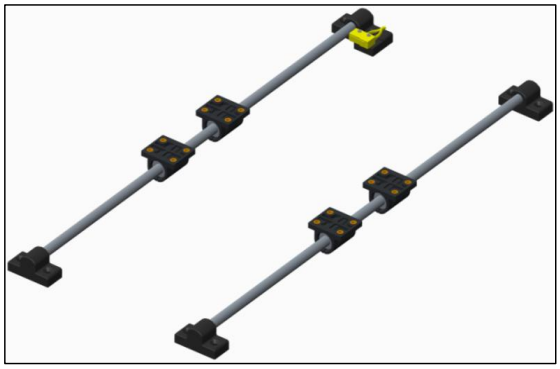
After assembly

Step 3

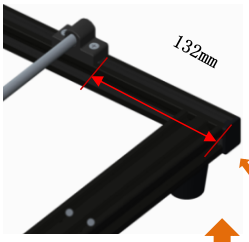


No.	Name	Qty.
1	M4*14	8
2	T - nut	8

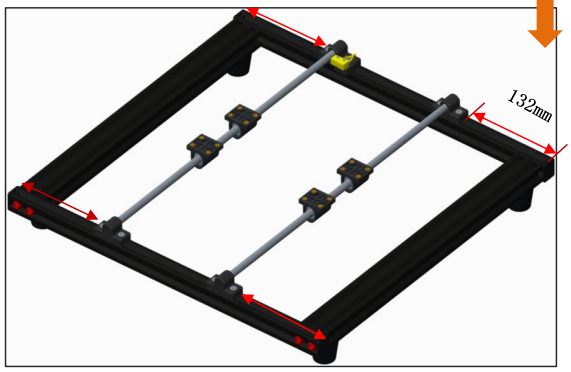
Before assembly



After assembly



End cap



Attention: The size of the double arrow in the drawing is 132 mm (the distance from the center of the leading rod fixed block to the edge of the profile), which is controlled during assembly.

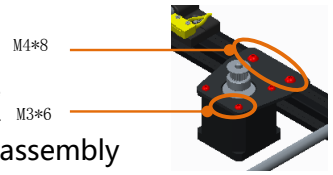
Step 4

No.	Name	Qty.
1	Y axis motor fixed plate	1
2	Y axis motor kit	1
3	socket hexagon screw M3*6	4
4	socket hexagon screw M4*8	2
5	M4 T - nut M4	2

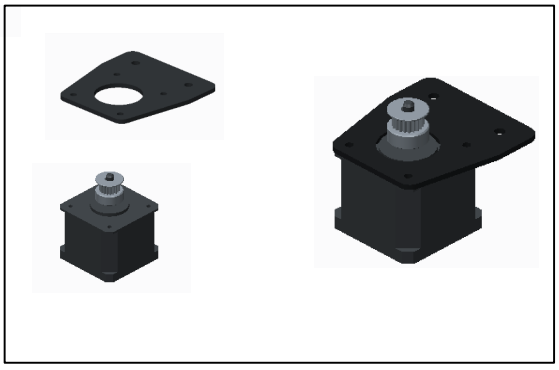
Note: Fix the Y axis motor fixed plate to the Y axis motor kit with 4 M3*6 screw

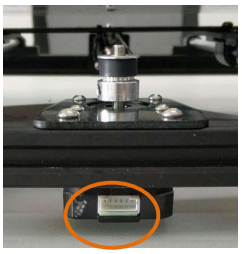
Note: 1. Please fix it in the center of rear X axis aluminum profile

2. M4 * 8 screws pass through the Y axis motor fixed plate, screw on the T - nut (entering 2 - 3 thread teeth), put it into the X - axis profile slot, tighten the screw (the nut will rotate 90 degrees during this process), and corner bracket will be fixed.

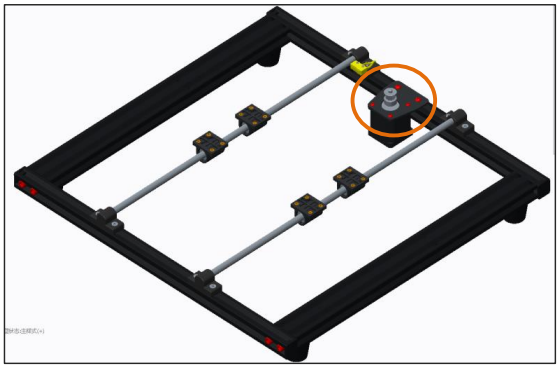


Before assembly





After assembly

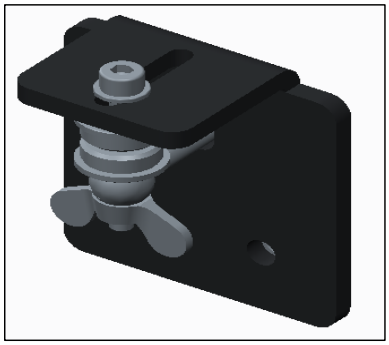


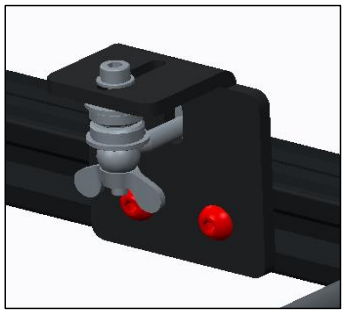
Step 5

No.	Name	Qty.
1	Y axis belt bearing fixed kit	1
2	M4*8 Socket hexagon screw	2
3	T-nut M4	2

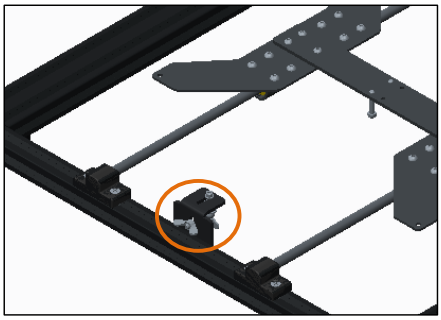
1. ease fix it in the center of front X axis aluminum profile.
2. M4 * 8 screws pass through the Y axis motor fixed plate, screw on the T - nut (entering 2 - 3 thread teeth), put it into the X - axis profile slot, tighten the screw (the nut will rotate 90 degrees during this process), and corner bracket will be fixed.

Before assembly





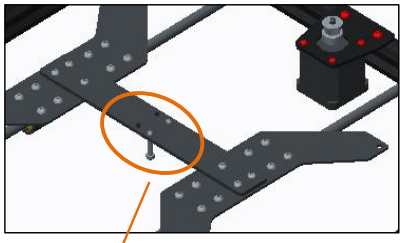
After assembly



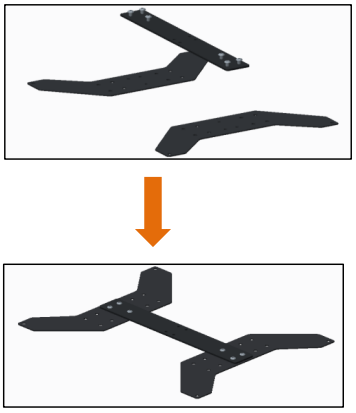
Step 6

No.	Name	Qty.
1	Hotbed support	2
2	Hotbed shelf	1
3	M4*8 Socket hexagon screw	22
4	Cylindrical head screw M4*14 Black	2

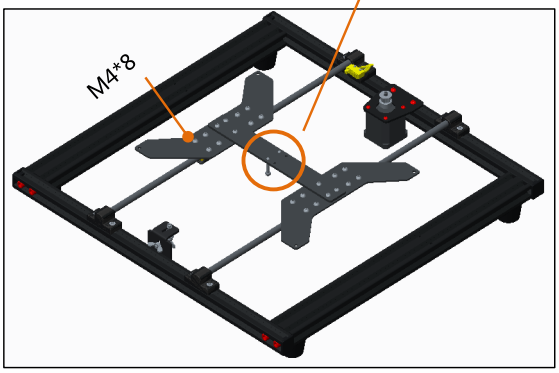
Fix M4*14 screw in the left hole



Before assembly



After assembly

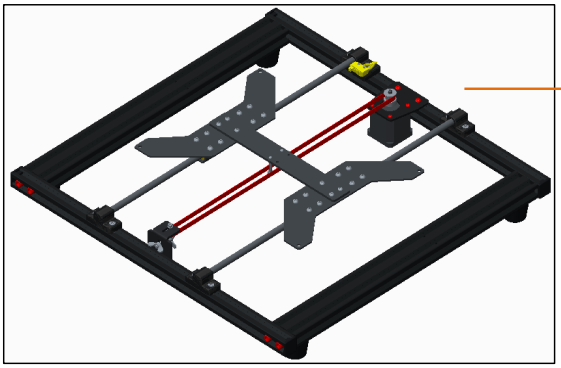


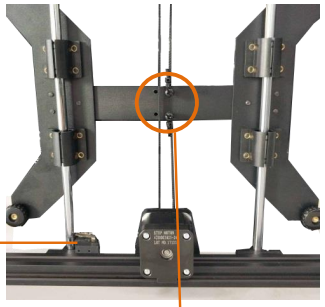
Step 7

No.	Name	Qty.
1	Belt	1
2	Belting	2

Before assembly

After assembly



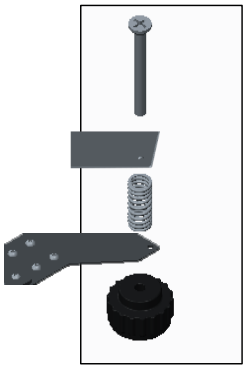


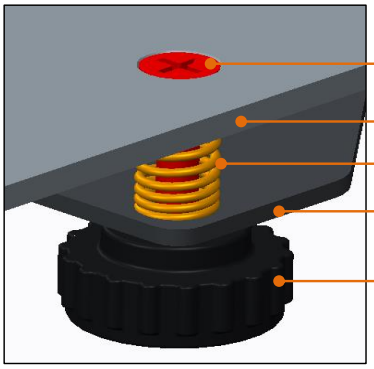
Note: The belt is cut to a proper length and fixed on the two M4 * 14 crews in step 6, Please tighten the belt and press it to see if it is loose.

Step 8

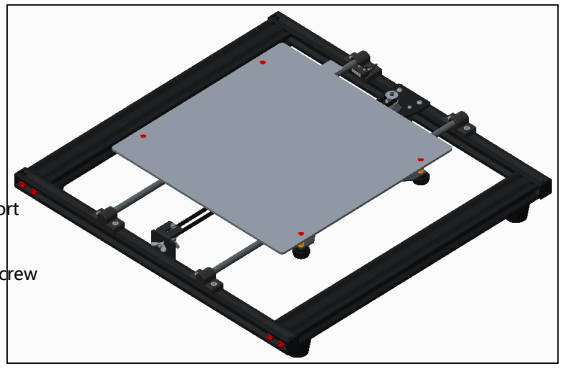
No.	Name	Qty.
1	M4*25	4
2	Spring	4
3	Plastic hand screw	4
4	Heating bed300*300*3mm	1
5	Toughened glass	1
6	Clips	4

Before assembly





After assembly

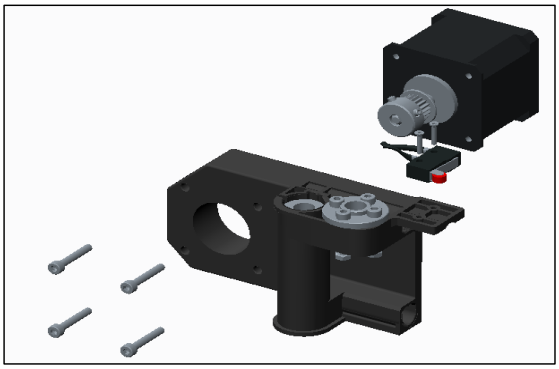


Attention: Fix the hot bed on the heating bed support in sequence as shown in the picture.

Step 9

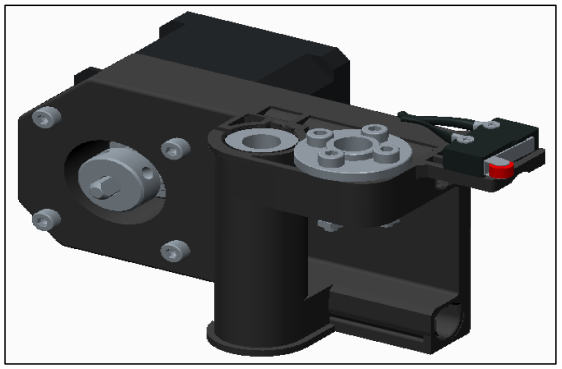
No.	Name	Qty.
1	Right Z axis screw rod nut support	1
2	X axis motor kit	1
3	Limit switch with pulley	1
4	Socket hexagon cylindrical head screw M3*20	4
5	Cross recessed countersunk screw KB2.3*12	2

Before assembly



The motor connection port is facing down, as shown in the figure

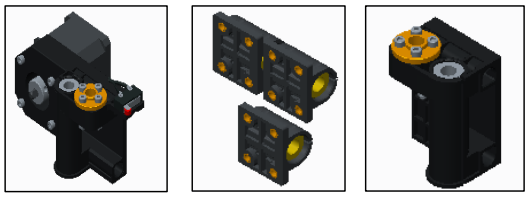
After assembly

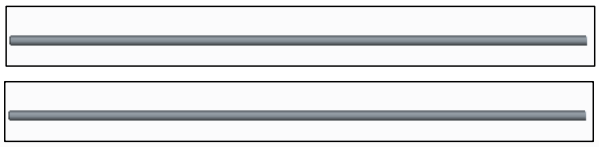


Step 10

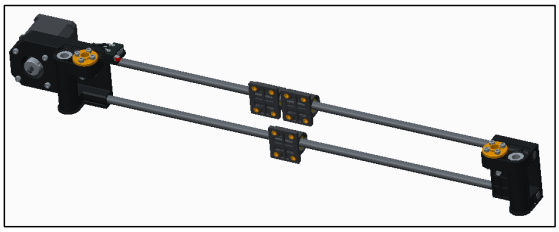
No.	Name	Qty.
1	Linear bearing	3
2	496mm X axis guiding rod	2
3	Right Z axis screw rod nut support	1

Before assembly





After assembly

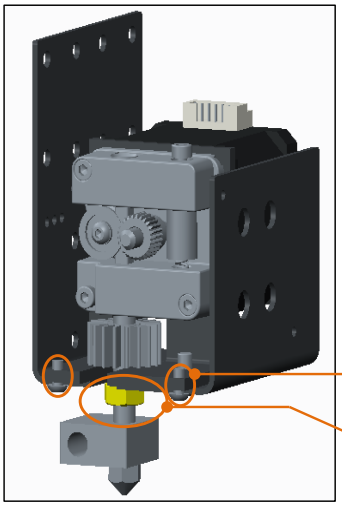


Attention: Please install in the direction shown in the picture.

Step 11

No.	Name	Qty.
1	Extruder kit	1

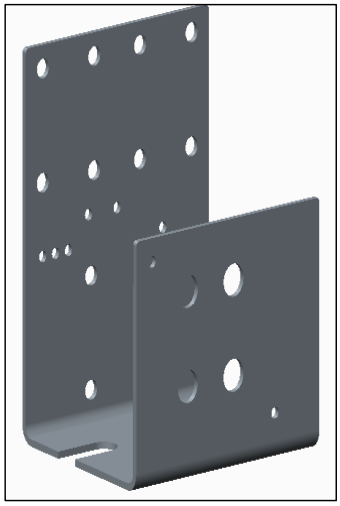
Before disassembly



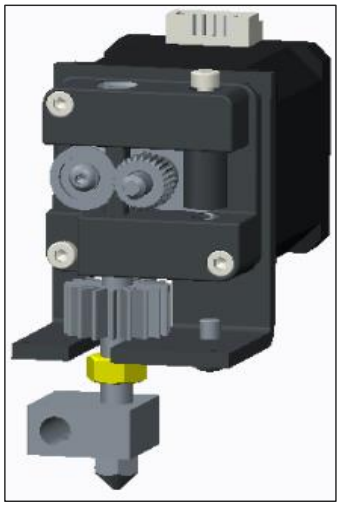
M3*6

Loosen the nut and exit the extruder

After disassembly



L-shaped black aluminum



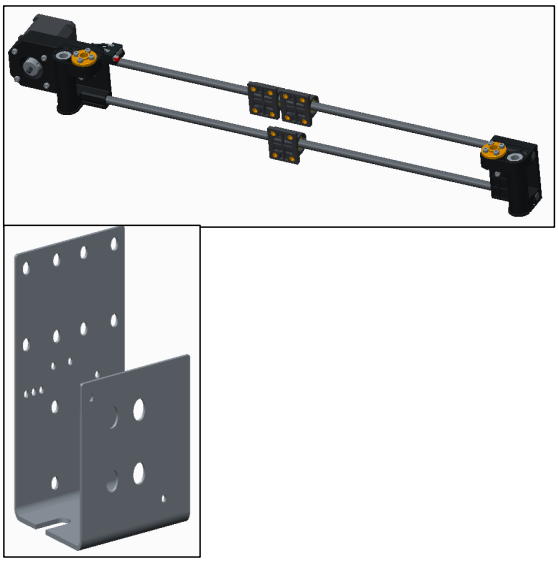
Extruder

1. Loosen the nut and separate the extruder from the L-shaped black aluminum .
2..Remove the 2 M3*6 screw and use them later.

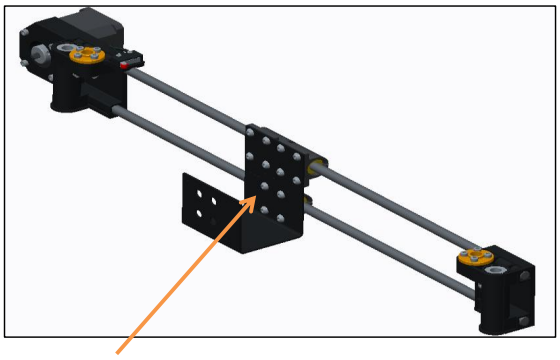
Step 12

No.	Name	Qty.
1	L-shaped aluminum holder	1
2	Socket hexagon screw M4*6	12

Before assembly



After assembly

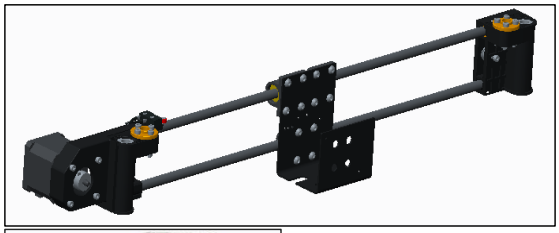


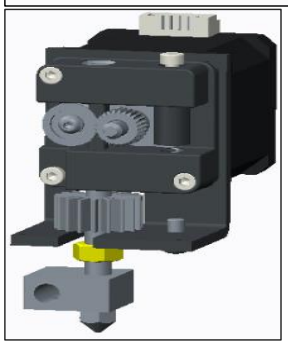
Fix the L-shaped aluminum holder in the linear bearing

Step 13

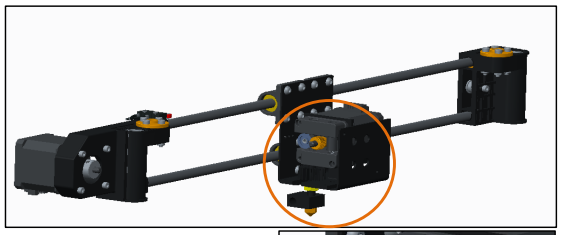
No.	Name	Qty.
1	Extruder	1

Before assembly

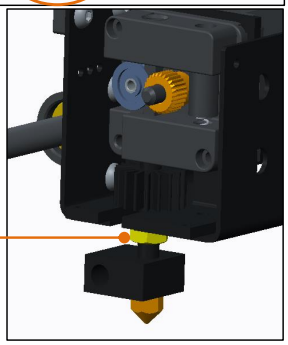




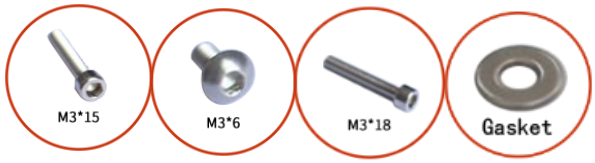
After assembly



Put the extruder into the L-shaped aluminum holder and tighten the nut

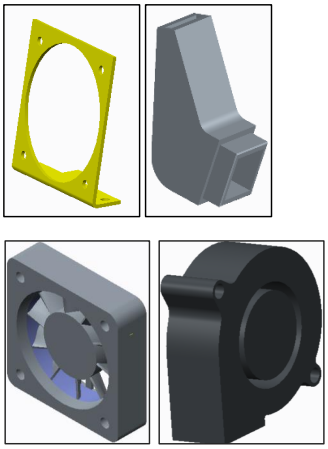


Step 14

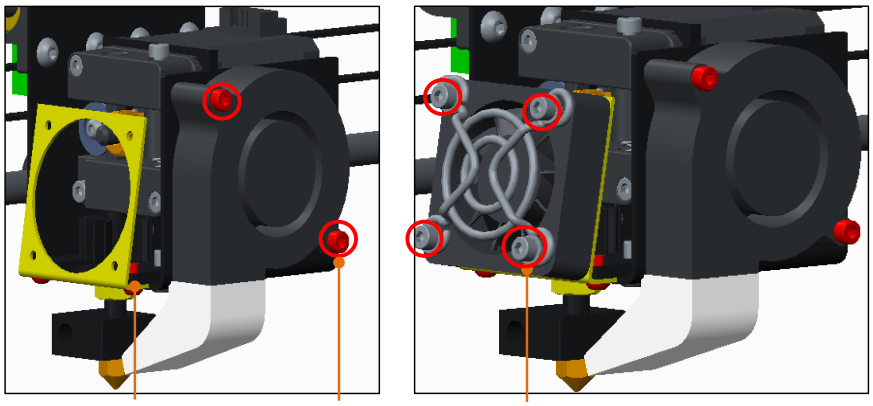


No.	Name	Qty.
1	Fan fixed plate	1
2	Fan	1
3	Air blower	1
4	Wind mouth	1
5	M3*15 Socket hexagon screw M3*15	4
6	Ø3 Gasket	4
7	Socket hexagon screw M3*6	2
8	Socket hexagon screw M3*18	2

Before assembly



After assembly

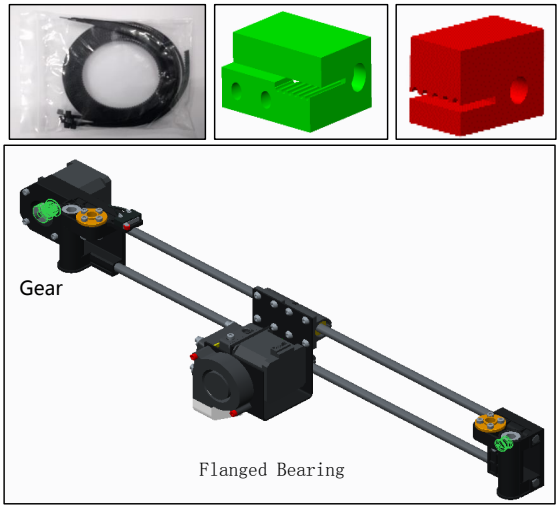


Fix the fan fixed plate in the L-shaped aluminum holder with 2 M3*6 screw

Step 15

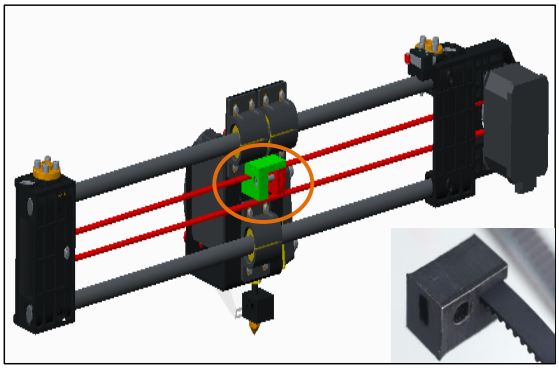
No.	Name	Qty.
1	Belt	1
2	Belt adjusting fixing block	1
3	Belt adjusting sliding block	1
4	M3*25 Socket hexagon screw	1
5	M3 nut	1
6	M3*10 Countersunk screw	2

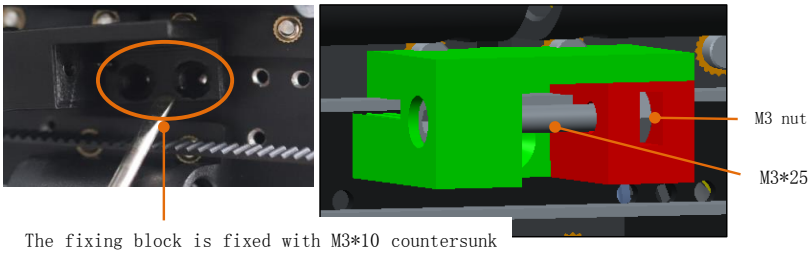
Before assembly



Connect the gear and flanged bearing with a belt , and sleeve the belt adjusting fixing block and sliding block, after fixing , press the belt to see if it is loose.

After assembly



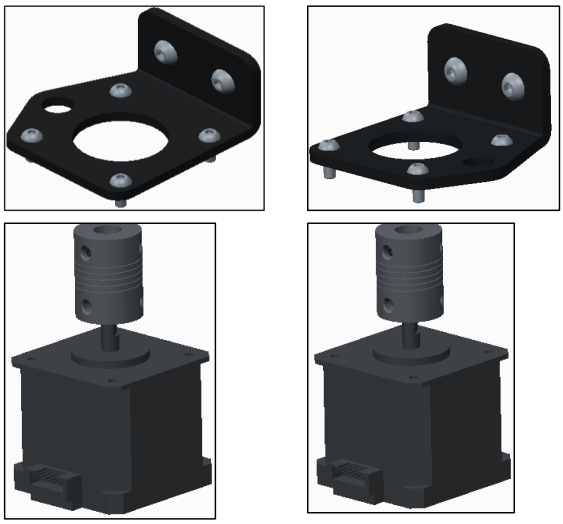


The fixing block is fixed with M3*10 countersunk screw

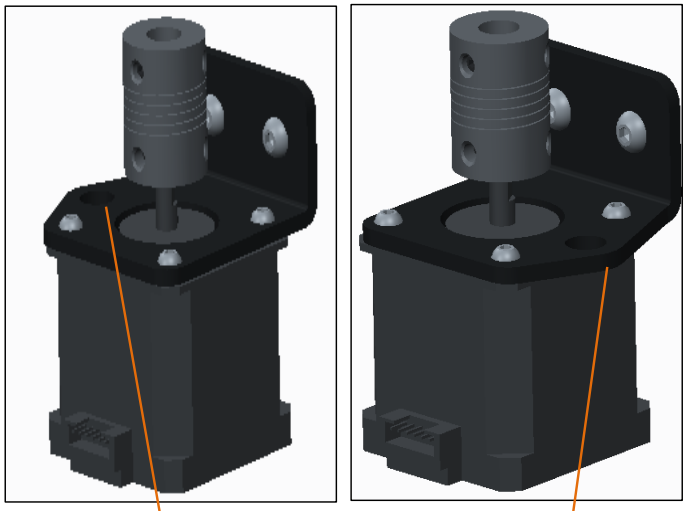
Step 16

No.	Name	Qty.
1	Z1 axis motor fixed plate	1
2	Z2 axis motor fixed plate	1
3	Z axis motor kit	2
4	Socket hexagon flat round head screw M3*6	8
5	Socket hexagon flat round head screw M4*8	4
6	M4 T-nut	4

Before assembly



After assembly



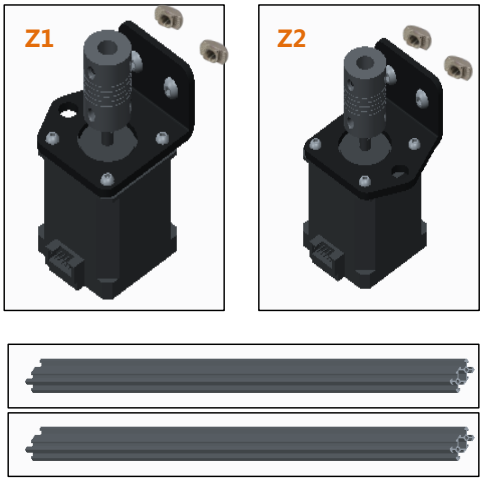
Please install as shown in the figure, pay attention to the direction relationship between the circular hole and the motor.

Step 17

No.	Name	Qty.
1	Z axis aluminum profile 500mm	2

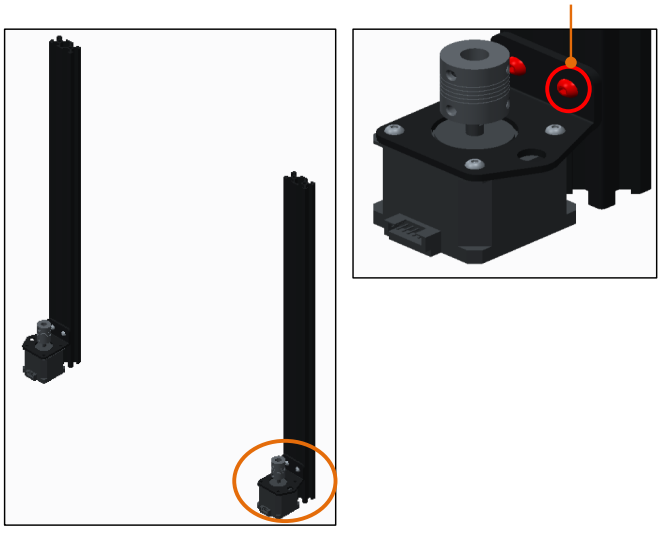
Before assembly

Z1 in the left ,Z2 in the right.



After assembly

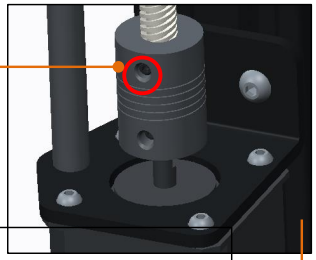
The T-nut is inside the profile clamping groove



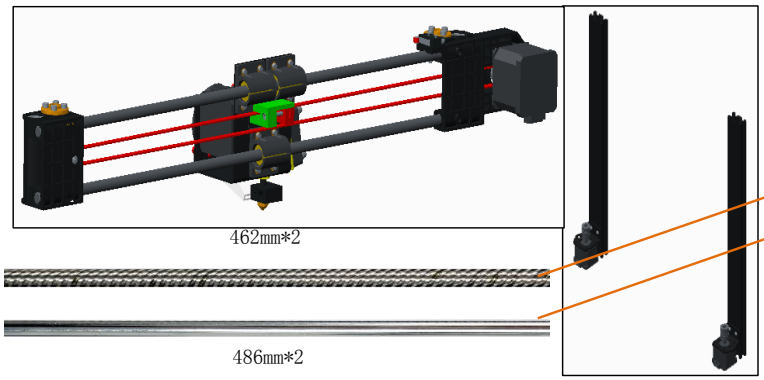
Step 18

No.	Name	Qty.
1	486mm Z axis guiding rod 486mm	2
2	462mm Z axis screw rod 462mm	2

Lock the self-contained top tightening screw



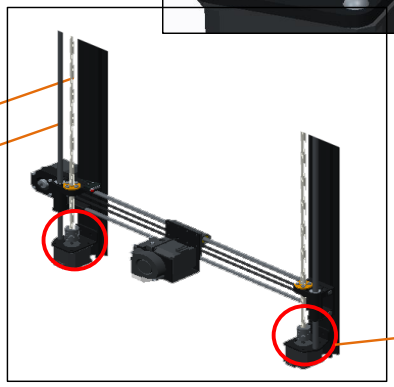
Before assembly



462mm*2

486mm*2

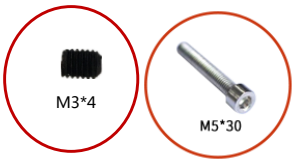
After assembly



.

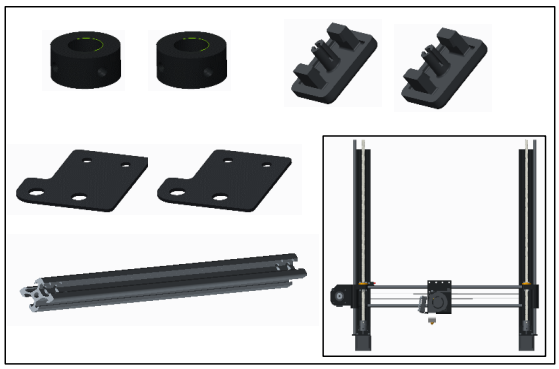
Note: Rotate the screw rod clockwise down to the bottom, and then lock the self-contained top tightening screw

Step 19



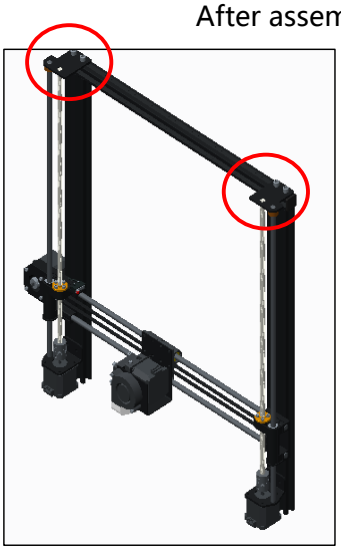
No.	Name	Qty.
1	Guiding rod shaft sleeve	2
2	M3*4 Black jackscrew M3*4	4
3	Z axis guiding rod fixed plate	2
4	M5*30 Socket hexagon cylindrical head screw	4
5	End cap	2
6	X axis aluminum profile 472mm	1

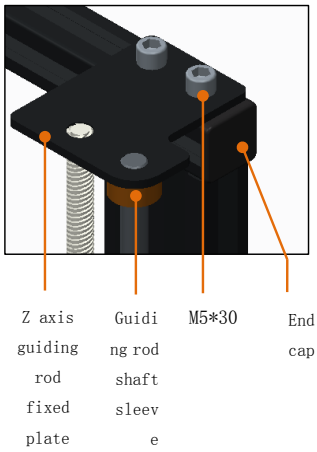
Before assembly



Note: Fix the guiding rod shaft sleeve with M3*4 black jackscrew

After assembly





Step 20

No.	Name	Qty.
1	M4*8 socket hexagon screw	4
2	M4 T-nut	4
3	M5*20 Socket hexagon cylindrical head screw	4

Before assembly

Corner bracket installation: Make the screws through the corner bracket, screw on the T - nut (2 - 3 thread tooth), put it into the profile slot (inside), tighten the screws with a wrench, and the T - nut will rotate 90 degrees and the corner bracket will be fixed.

Corner bracket installation diagram

After assembly

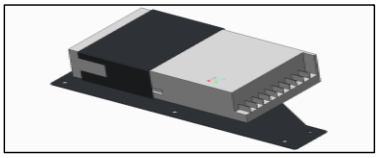
Attention: Put the vertical frame on the chassis, align it with the holes on the aluminum profile of the chassis , and fix to on the chassis with 4 M5 * 20 screws.

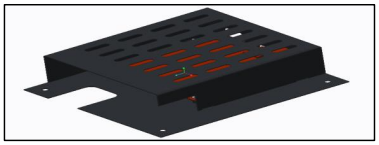
Step 21

No.	Name	Qty.
1	Power supply kit	1
2	Mainboard kit	1

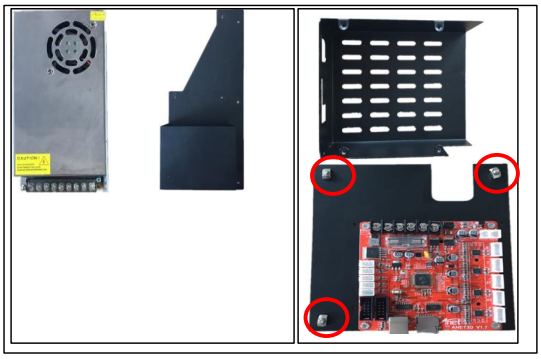
Remove the M3 * 6 socket hexagon screw for fixing the power supply, split the power supply and power supply fixing frame, and retain the 3 inner hexangular set screws.

Before assembly





After assembly



Split the motherboard kit, retain the 4 m3 * 6 socket hexagon screws, and then install the M4 * 8 socket hexagon screws and T- nuts in the 3 holes on the mainboard.

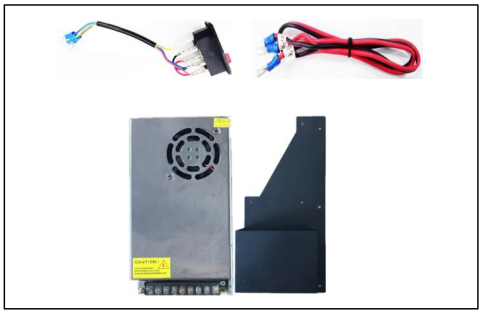
The circle is an enlarged view (side) of the T - nut installation

Step 22

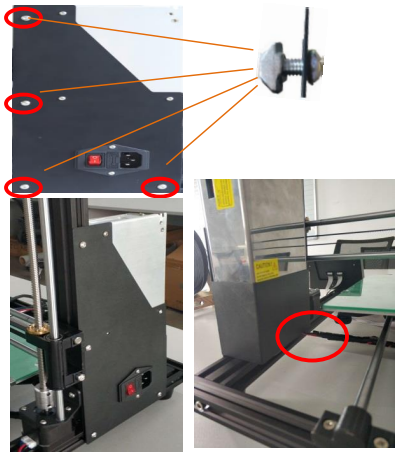
No.	Name	Qty.
1	Power outlet	1
2	Red and black with U-shaped line (Double head)	1
3	M4*6 socket hexagon screw	4
3	T-nut M4	4
4	M3*6 socket hexagon screw	5

The circle is an enlarged view (side) of the T - nut installation

Before assembly



After assembly



Note: The wiring diagram of the switch power supply, 1.2.3, are respectively the input wire L (brown), the zero line N (blue) and the ground wire (yellow green), which are connected to the AC socket wire. 4.5.6 are the output negative COM (black -), 7.8.9 are the output positive V + (red +), please make sure the wiring correct to prevent danger!

Step 23

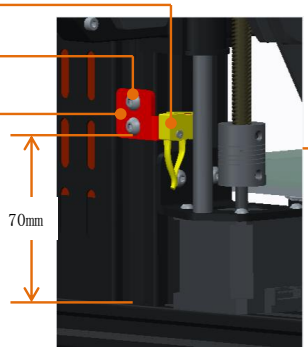
No.	Name	Qty.
1	KM2*10	2
2	M4*8 cross recessed countersunk screw	2
3	T-nut M4	2
4	Limit switch (without pulley)/Limit switch support	1
5	A8 plus motor line bag	1
6	Heating tube6*20mm(with line 1.5m)	1
7	Hotbed line	1
8	FPC grey ribbon line bag	2

Limit switch

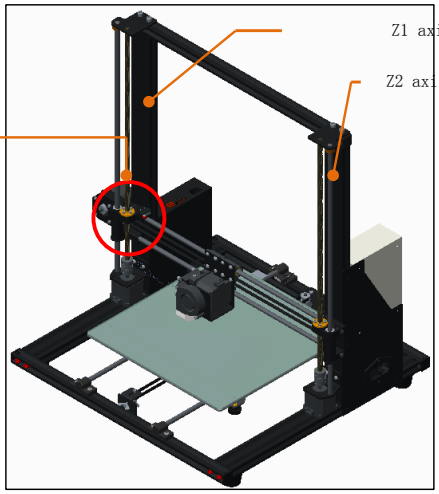
M4*6

Limit switch support

The installation position of the Z - axis limit switch is 80 mm away from the Y - axis profile



Installation diagram of limit switch support

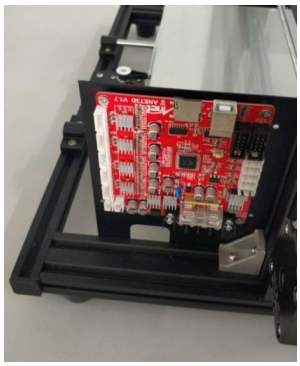


Step 24

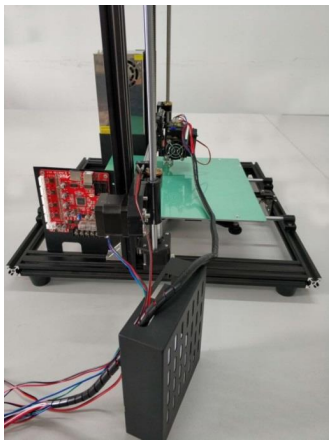
The cable with the word "-A" is connected to one end of the mainboard.

No.	Name	Qty.
1	Motor line bag	5
2	FPC grey ribbon line bag	1
3	Limit switch line bag	3

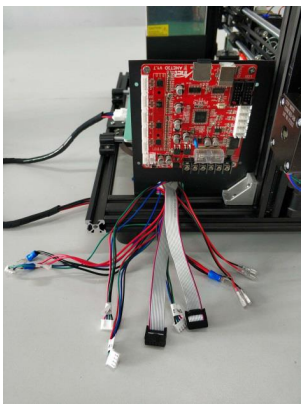
Fix mainboard on the groove



Please pass the lines(with -A word) of extruder, X axis limit switch and X axis motor through the square hole on the mainboard.



Pass all other wires through the holes under the mainboard (The cable with the word "-A" is connected to one end of the mainboard.)



Step 25

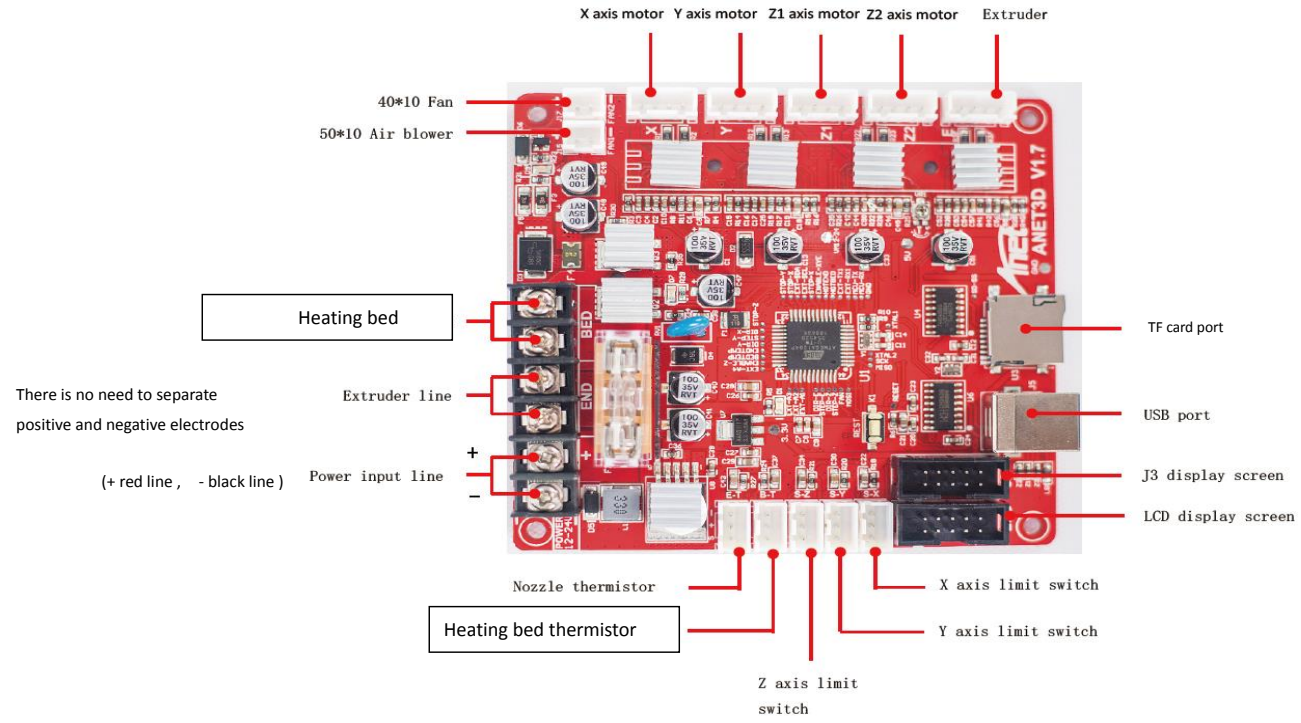
According to the schematic diagram of the line port and the label of the wiring, find the corresponding wiring and plug in all the wiring, the cable with the word "-A" is connected to one end of the mainboard.

Wiring sheet :

Name	Cable label	Mainboard port		Name	Cable label	Mainboard port
X axis motor	X-Motor-A	X		X axis limit switch	X axis limit switch line-A	S-X
Y axis motor	Y-Motor-A	Y		Y axis limit switch	Y axis limit switch line-A	S-Y
Z1 axis motor	Z1-Motor-A	Z1		Z axis limit switch	Z axis limit switch line-A	S-Z
Z2 axis motor	Z2-Motor-A	Z2		Heating bed	Heating bed-A	BED
E axis motor	E-Motor-A	E			Thermistor-A	B-T
Extruder	Extruder thermistor-A	E-T		TF card		TF card port
Extruder	Extruder heating tube-A	END		power supply	Power supply line-A	+ -
Display screen	LCD grey ribbon cable -A	LCD		Fan	Fan with line-A	FAN2
Display screen	J3 grey ribbon cable-A	J3		Air blower	Air blower with line-A	FAN1

1. Except that the electronic wire shown in step 6 passes through the jack at the upper end of the mainboard, the remaining electronic wires are all pulled out from the holes under the mainboard, and the machine is connected from below the machine to avoid affecting the operation of the machine.

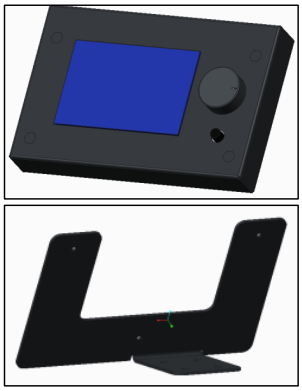
2. When all wiring is plugged in, please remove the zip ties on the black belt, plug in the power line, turn on the machine for trial operation(please refer 7.2 First Printing), and then install the mainboard shell after everything is normal.



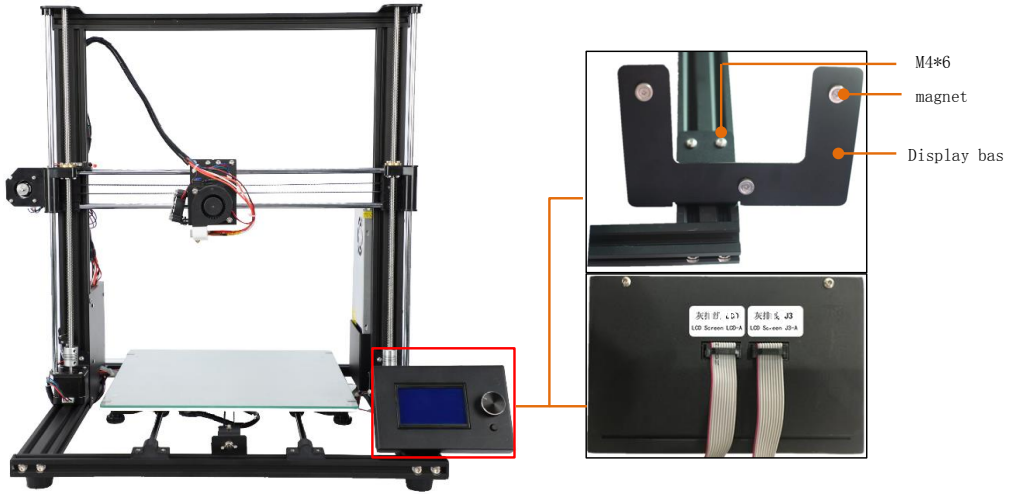
Step 26

No.	Name	Qty.
1	Display screen base	1
2	Display screen	1
3	T-nut M4	4
4	M4*6	4
5	Magnet	3

Before assembly



After assembly



Note: 1. The LCD / J3 wiring of the display screen corresponds to the socket screen printing (LCD / J3) on the control panel. Please do not connect the wrong wiring.

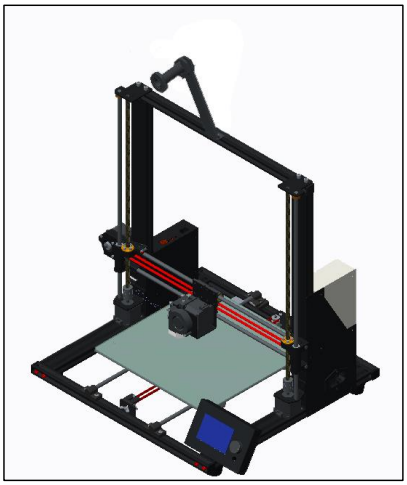
2. Put the display screen directly on the magnet after installation to complete the installation of the display screen and components.

Step 27

No.	Name	Qty.
1	Filament holder	1
2	M4*8	2
3	T-nut	2

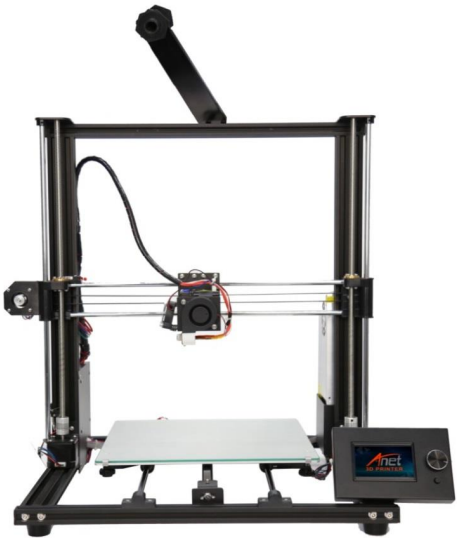
Before assembly

After assembly

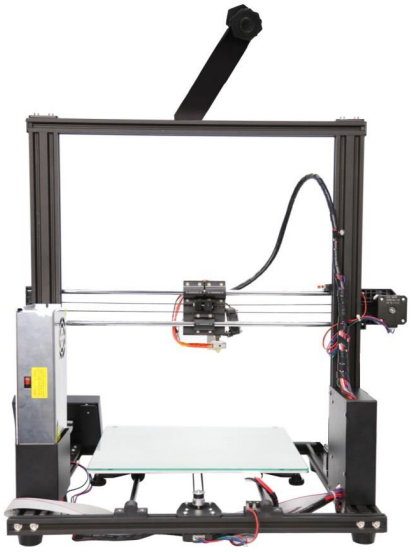


Step 28

Final Schematic diagram



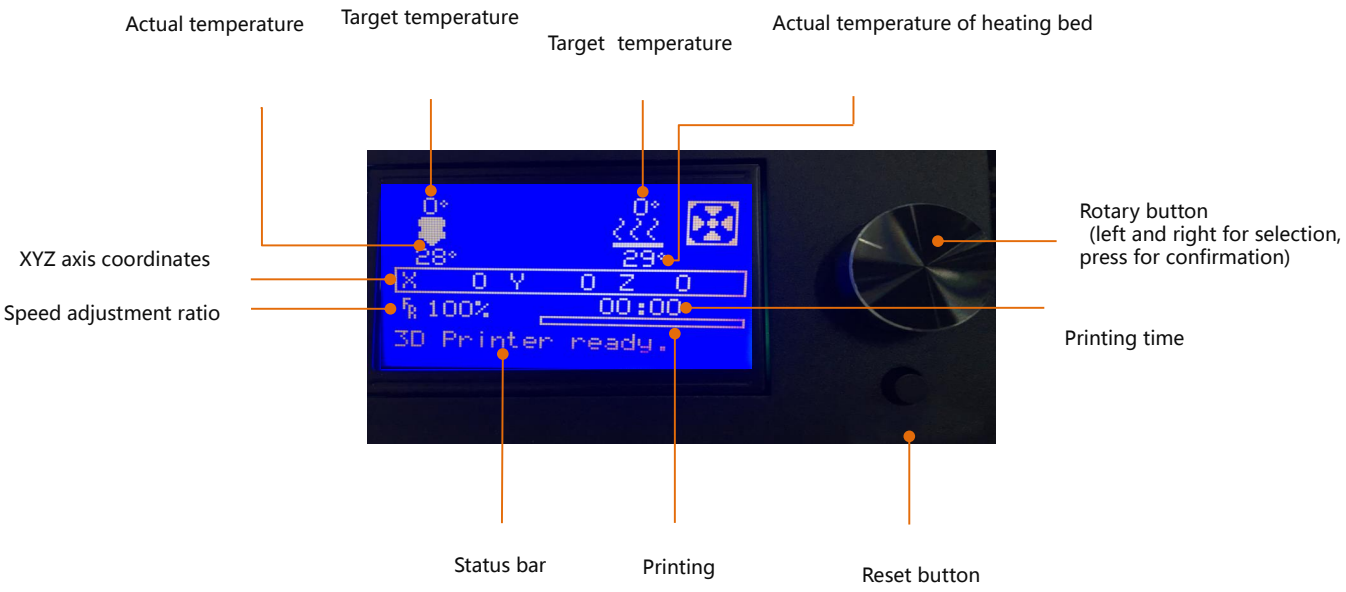
Front



Back

7 Machine Function Introduction

7.1 Operation Interface

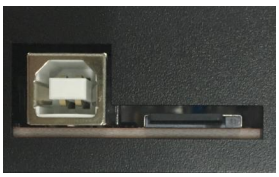


7.2 First Printing

7.2.1 Install TF Card

Insert TF as shown in picture 2

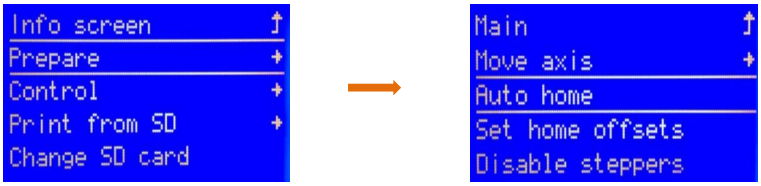
TF card



TF card installation completed

7.2.2 Machine leveling

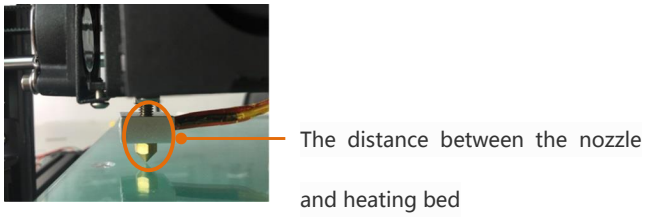
1. **Auto home operation:** Adjust the spring around the heating bed to the tightest (counterclockwise), press the rotary button to enter the main menu, select “Prepare” → “Auto home”, the machine begins to move toward the position of the limit switch until it stops moving after touching the limit switch.



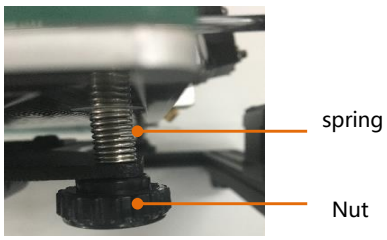
2. **Disable steppers operation**: Press the rotary button to enter the main menu, select “Prepare” → “Disable steppers”.

3. **Manual leveling:** Move the nozzle to the heating bed, and observe the distance between the nozzle and the heating bed from the front of the machine. If the distance between the nozzle and the four corners of the heating bed is 0.1mm (the thickness of a piece of A4 paper, A4 paper can pass through the gap and feel slight resistance), leveling is not required. If the distance between the

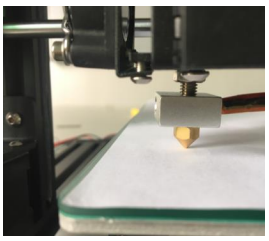
nozzle and the four corners of the heating bed is greater than or less than 0.1mm, adjust according to step 4.



4. Adjust the distance: Fine - tuning the "distance" to make its size about 0.1mm meet the printing requirement. Move the nozzle to the other three corners of the heating bed, and sequentially adjusting the spring compression of the four corners of the heating bed in one direction (clockwise or counterclockwise), so that an A4 paper (about 0.1mm) can pass through this distance and feel a slight resistance, and there is no scratch on the platform when moving the extruder.



Attention: turning the nut counterclockwise is tight and turning the nut clockwise is loose.



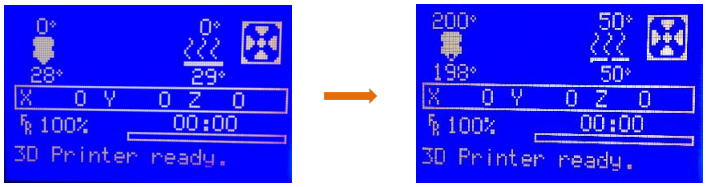
A4 paper can pass through the distance between the four corners of the heating bed and nozzle, and feel slight resistance.

7.2.3 Load Filament

1． Perheat Machine

Before loading filament, the machine needs to be preheated. The following pictures illustrates PLA filament as an example, and the operation is as follows.

Operating method: Press the knob→“Prepare”→“Preheat PLA”→“Preheat PLA”, the machine starts to perheat（the main interface shows that the machine is perheat).



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The heating bed and extruder reach

Note: If you want to print with ABS filament, you must select " Preheat ABS" for preheating.

2 Load Filament

Load filament automatically:

1. A roll of PLA filament: Filament specifications: Diameter :1.75mm; Material: PLA ;Printing temperature: 200-230℃;

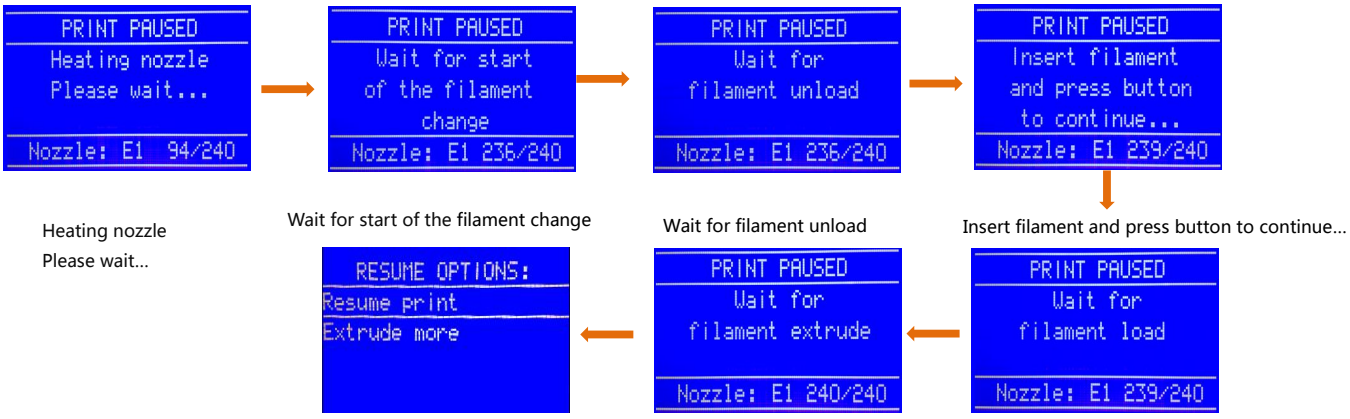
2. Please press rotary button →“Prepare”→“Change filament”, the main interface will display “Heating nozzle Please wait……”, the interface will display “Wait for start of the filament change” after the nozzle temperature rises to the target temperature → “Wait for filament unload ” →“Insert filament and press button to continue…” → then please press rotary button;

3. Straighten up the filament (or cut the filament into bevels with plier),then pass the filament through the extruder;

4. Meanwhile the main interface will display “Wait for filament load” →“Wait for filament extrude”,please click “Resume print” to start printing;

5. If the nozzle has filament outflow, the installation of filament is successful. If the installation of filament is not successful, please select“Extrude more”to re-load.

Attention: The function of automatic material advance and retreat is carried out according to the steps of material return first and material feed later, when the first printing has not started installing filament yet, please wait for 1 - 3 minutes. After the interface displays “Insert filament and press button to continue”, insert filament into the extruder for automatic feeding.



Heating nozzle
Please wait...

Wait for start of the filament change

Wait for filament unload

Insert filament and press button to continue...

Wait for filament load

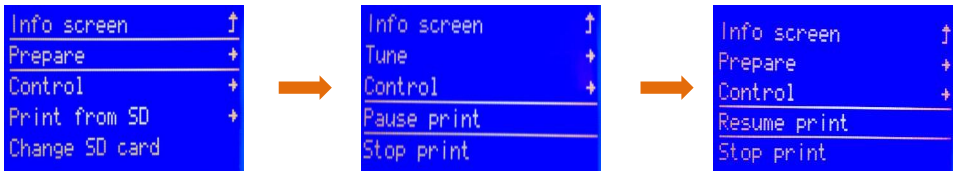
Wait for filament extrude

Resume print
Extrude more

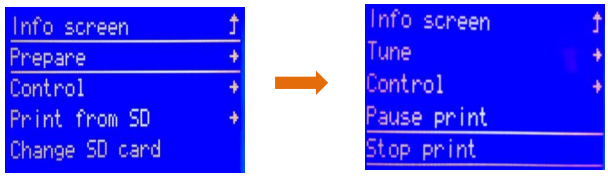
3 Printing

1. After leveling is completed and the filament is installed successfully, press the rotary button to enter the main menu, press ″ Print from SD″ → ″ Main″ and select the file under ″ Main″ to start first printing.

2. In the process of printing, if you want to pause printing, press the rotary button to enter the main menu, press ″ Prepare″ → ″ Pause print″ to pause printing, and press ″ Resume print″ to resume printing.



3. If you want to stop printing during printing, press the rotary button to enter the main menu, press ″ Prepare″ → ″ Stop print″ to stop printing, press the reset button to resume normal operation of the machine and select to reprint the model.



7.2.4 Remove Model

Please remove the model by hand after printing .

7.2.5 Unload Filament

Automatic unload filament (taking PLA as an example)

Please press rotary button → "Prepare" → "Change filament", the main interface will display "Heating nozzle Please wait……", wait for 1-2 mins , the interface will display "Wait for start of the filament change" after the nozzle temperature rises to the target temperature → "Wait for filament unload " , the machine automatically unload filament , then pulls out the filament in the vertical direction and unload the filament.

Heating Nozzle
Please wait...

Wait for start of the filament change

Wait for filament unload