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Thank you for purchasing F300 3D PRINTER . User experience is us concerned about. Overall structure is new created with more friendly operation interface. We hope F300 will become your best partner in work. And help your creative idea to become real.

Next, follow the manual with carefulness to assemble whole printer. Step by step, we will assist you to correctly install. Enjoy!

# Parts List:

Long pillar (X、Y、Z) X3 —	1
Rubber padX4	2
Panel screw(M4)X4	3
Frame screw(M6)X36	4
Carbon rod x6	5
2040 al. pillarX8	6
2040 al. pillarX1	7
Main Plate(set) —	
Hot bed (set)	9
Glass stage ————	1
Print head (set)	1
Filament Holder (set) —	1
Extrusion motor (set) ———	1
Touch panel (set)	1

# Tools:

5mm Hex T-Wrench		a
3mm Hex L- Wrench		b
2.5mm Hex L- Wrech		с
Cross screwdriver		
Flathead Screwdriver	c	





# **01** Frame assemble Long pillar- Z (4 holes side)

1.Put the carton pad on workplace to avoid the parts damage your furniture.

2. Stand up the Z mark pillar on workplace. Let 2 holes side close to ground. And you can keep the carton pack temporarily for identification and clear.

#### Note.

Notice unusual resistance when drive screws, maybe the screws crooked. Drive screws counterclockwise till the screw completely leave from the hole. And adjust the screw angle again and then install again Tips: Put the pillar on table edge. It is more easily for you to assemble the 2040 al. pillar.









# **03** Frame assemble Long pillar X, Y

1. Install the X pillar with 4 of M6 screws on top first and then 2 of M6 screws beneath

2. Install the Y pillar with 4 of M6 screws on top first and then 2 of M6 screws beneath, in the same action



# **04** Frame assemble 2040 al. pillars

1. Install the 2 of 2040 al. pillars on top of frame with 8 of M6 screws. Beware the trough side facing outward.

2. Install the last 2040 al. pillar under the frame.







# **05** Rubber pads

1. As drawing, install the 4 rubber pads.

2. Notice that when locking screws, the T-nuts should vertical to the 2040 al.pillar. If no, loose the screw and drive again.



# **06** Main plate

1. Put the main plate on the fame with main board side toward bottom, and the opening side toward the 2040 al. pillars.

2. Loose the T-nut and drive to right direction and then tightly fasten it.

3. Lay down the machine, and then turn it upside down to right show. Beware not to crush the wires.



# **07** Power wires

1. Find out the E,N,L 3 tag wires on the 2040 al. pillar (with switch). Connect it to the power terminal with corresponding position by using the cross screwdriver as drawing.

2. Check the position again and firmly locked.





# Signal wires











The most left pin of the SD card slot should be map to the most up pin of the terminal.



4. After install LCD holder on the 2040 al. pillar, then put on the cover



# **11** Filament holder

1. Install filament holder on the top of Z pillar. 4 T-nuts have to be locked.

2. Replace the machine with the operation side toward self.







4. Connect the 4x2 Teflon tube to couplers on Extruder.



# Wiring

1. Pass the cable of the print head through the B trunking of the Y pillar, and go through the reserved space to the electric control box.

# Tips:



- 2. Connect the two red wires to corresponding position as drawing and fasten the screws
- 3. Connect the cable of the print head with the short cable which connected to the mainboard





4. Pass the cable of the extruder through the A trunking of the Y pillar, and go through the reserved space to the electric control box





5. Connect the E cable to corresponding terminal which tag "E-MOTOR".





# 14 Hot bed

1. Put the hot bed right form the printer with the insulation cotton pwards. Insert the 2 separate white wires into the corresponding connector (red) and lock screws. Pull the wires to be sure them was firmly locked.

2. Connect the temperature sensor cable (white) to corresponding terminal which tag "BED-TEMP".

#### (Be careful to connect cable avoid poor contact)



# **15** Glass stage

1. Push the print head the most top.

2. Take out the glass stage from the C box. Put 1 buffer strip side toward the Z pillar. Tilt the stage 45 degrees up and lay it down slightly.

3. Insert the stopper to the gap between the glass and the Z pillar to avoid slide.

4. Finish.





Congratulations! Just finish good job! Next, please follow our test instrument. Make sure that all function is correctly operated, and start your first print.

1) Start

Connect the power supply and click on the power switch.



(2)

## **Motor test**

Enter [Tools] $\rightarrow$ [Move]. Press the home button. The X, Y, Z axis will move to top and stop by the limit switch. If the error occurs, please check the wire connection.





#### **Extruder test**

Back to the previous page, and enter [control]. Press the  $\bigtriangledown$  or  $\checkmark$  button, and check if the extruder gear operation correctly.



#### Hot-End, Hot-Bed, Fan Test

Stay in the control page. Press the icon will enable the corresponding function, and disable the function by press it again. You can change the setting by touch the number. The left is present value, and the right is goal value.



#### **Finish Test**

After testing, be sure to disable all function.







## Auto level



## Install ALD(Auto level detector)

Insert the ALD into the port on the print head surely.



**Auto Level** 

2 Execute Auto Level

Enter [Tools]→Press [Auto level] will start the procedure

If pop up the window of "Please plug ALD" after press the [Auto level] button, it is means ALD not plugged correctly please plug again.



#### Z Axis

#### 1 Starting layer height

Enter [Tools]→[Manual]

- 1. Press the home button first.
- 2. Press the  $\downarrow$  button to lower print head

When approaching to the plate, the small scale will make the position more accurate. If the print head over hit the plate, it may cause the belt tooth jump or make the step motor go wrong step. In this case, we should start from step 1 again.



## Z Axis

When the print head approach to the plate, select [0.01mm] scale and keep go in down until here the sound of the nozzle hit the glass. (back and forth make sure) After hear the sound, select [0.1mm] scale and press Z+ a step. Then press [SETZ=0] button, the starting layer height is set up.

2





## **Prepare For Printing**

2

1) Glue a thin layer on the glass plate.



) Heating the nozzle until 190 degree





## **Prepare For Printing**

After confirm the filament in the teflon tube, push the stopper and the moving part of the extruder at the same time until the bolt plug in the hole. And hen push the filament easily until the material melt from the nozzle.



Beware to push the moving part of the extruder after loading the filament, the bolt will pop up.



## **Test printing**



Insert the SD card. Back to the main screen. Press [printing] and select the [wire\_holder.gcode] file name. The machine is starting the printing process.



SD Card	
STL FILE	~
wire_holder.gcode	]
Car.gcobe	
dmm.txt	~
	Ś

Test printing

2) The [wire\_holder] is to buckle on the 2040 al. pillar on top to fix the extruder wire and the print\_head cable.



# Hot end Removal



- 1. Heat the hot end until the material melt from the nozzle and then pull out from the extruder.
- 2. Disable the heater and wait until the nozzle cool down. Remove the red wire and the white wire connector



# **Hot end Removal**

## 2) Hot end Removal

- 1. Loose the screw as the drawing, and then pull out the hot end.
- 2. We can release the force screw to let the heater and the thermistor go out.

Attention! When install the thermistor, we should put it inside the middle of the small hole. And the screw is to fix the heater, do not fasten to much to avoid damage the thread.





# **S D Card File**



#### Software

- 1. Two kinds of slicer software CURA and KISSLICER are included.
- 2. Refer to the documentation for installation instructions and associated profiles.

#### Digital Accessories

- 1. Wire\_holder.gcode
- 2.2020\_cover.gcode
- 3. Platestop.gcode