ADIMLab-gantry

Assembly specifications

Version V 1.3.2
ADIMLab-gantry
Assembly steps

1. Install the frame

The whole machine is basically installed before delivery, divided into the gantry bracket, the base components, and the 3D printer control box three modules, we only require three modules can be assembled simply. After assembly, the finished product is as follows:
1.1 Install the gantry bracket to the base components.

(1) Place two M5 * 25 screws to secure the gantry to the base flat. Pay attention to the reference of the installation of the picture, do not install opposite.
(2) Install the Z-axis limit switch mounting plate to the left side of the machine.
(3) Install the Z-axis fixed plate to the right side of the machine.

(4) Install filament bracket
(5) Install filament detector module.
2. Wiring

3: Z2-motor       4: Extruder      ①: X-Endstop
⑤: filament detector

Extruder wiring: (4: Extruder)
filament detector wiring (⑤: filament detector)

3. Machine test run

3.1 Select voltage:

(1) Crate provides two kinds of voltage options, namely 110V and 220V, the default voltage of 220V, before connecting the power source, select the correct voltage. (Please confirm the correct and then turn on the power supply, otherwise the power will be broken.)
3.2 Test of return to zero:

(1) Control box left power button
(2) "Info screen" click button, select "Prepare", click ok:

(3) Select "Auto home" in Submenu, click ok:

Normally, the three axes will return to the position of the original point, as follows.
### 3.3 Test heating

1. “Info screen” click button, Select “Prepare”, click ok:

![Info screen menu]

2. Select “Preheat PLA” in Submenu, click ok:

![SubMenu menu]
(3) Select “Preheat PLA” in Submenu, click ok:

If the two temperatures in following picture are on the rise, the heating is normal.

If “Auto home” and “Preheat PLA” normal, it means your 3D printer is already connected.
4. Machine levelling

4.1 Adjust the level of the X-axis bar:

(1) "Info screen" click button, Select "Prepare", click ok:

```
Info screen
Prepare
Control
Print from SD
Case light
```

(2) Select "X Height adjustment", click ok:

```
Preheat ABS
Change filament
X Height adjustment
Set home offsets
Z Top
```

(3) Z-axis automatic raise 30mm, Use a solid glue stick or print to measure the distance between the ends of the X-axis guide and the base.
(5) Adjust the height of the X-axis guide by rotating the Z-axis blue coupling so that the metal parts at both ends of the X-axis
guide are just enough to touch the glue stick or print.

4. 2Hodbed Leveling:

(1) “Info screen” Select “Prepare”, click ok:

![Info screen]

(2) Select “Manual Bed Leveling” in Submenu, click ok:

![Submenu]

(3) Home to the original point, Extruder moves to the first adjustment point in the lower left corner of the hot bed.

![Homing XYZ]
(3) Adjust hand screw nut under the platform, Make the nozzle touch the hot bed:

(4) Click knob, Extruder. Move to the second adjustment point, Adjust hand screw nut under the platform, Make the nozzle just touch the hot bed:
(5) Click knob, Extruder move to the third adjustment point, Adjust hand screw nut under the platform, Make the nozzle just touch the hot bed:

(6) Click knob, Extruder move to the fourth adjustment point, Adjust hand screw nut under the platform, Make the nozzle just touch the hot bed:
(7) Click knob, Extruder move to the middle of the hotbed, check the distance between the nozzle and the hot bed. If nozzle just touch the hotbed, It mean adjust succeed, Select “Back” in the Lcd display:
(8) If the distance between the nozzle and the hot bed is too high or too low, select “Next Point” repeat (4)-(8) operating.

5. Machine printing test

(1) Insert the filament.
(2) Filament through the filament dector module:

(3) Press Extruder plunger, insert filament.
(Note: Filament must plug in to the bottom)
(4) “Info screen” click button, select “Print from SD”, click ok

![Info screen](image)

(5) Select “505020.gcode” in Submenu, click ok:

![Menu](image)

(6) Printer need preheating, pls be patient:

![Preheating](image)
(7) Preheating ok, start printing:

The end

Youtube video:

Our channel: **ADIMLab 3D Printer**