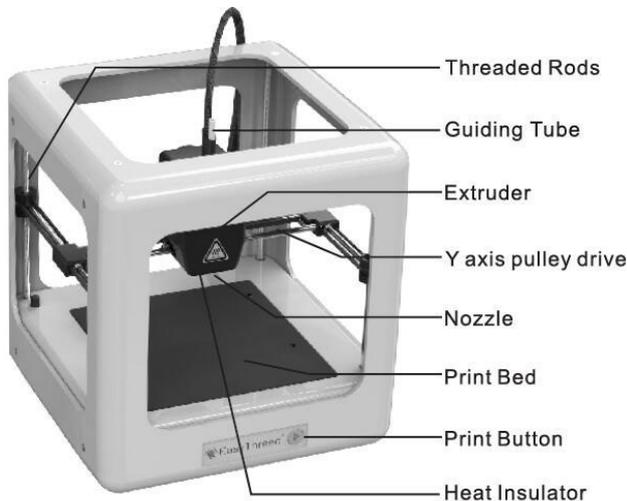




## USERS MANUAL

Please watch operation video in Website or YouTube Channel:Easythreed3D

Thank you for purchasing E3D NANO 3d Printer,NANO is kind of consumer 3d printer,it can make your custom creations come to life, Just plug in the printer, download the models, click print, and watch as you bring an object into the world through 3D printing



### Nano specification:

Building size:90\*110\*110mm  
Layer thickness:0.1-0.3mm  
Nozzle diameter:0.4mm  
Supported filament:PLA  
Printing temperature:180°C-230°C  
Filament diameter:1.75mm  
Print speed:10-20mm/s  
Resolution :0.1-0.2mm  
Slicing software: Easyware,CURA,Simplify3D  
Supported file format:.STL  
Support OS:Windows XP/7/8/10 (32 bit/64bit)  
**MAC**  
Machine size:188X188X198mm  
Machine net weight:1.5KG

For updated information, please visit [www.easythreed.com](http://www.easythreed.com)

# 1.0 Un-Boxing NANO 3d printer



1. Lift The nano from it packaging box. Remove bubble wrap, foam. Tape.
2. Inside is an NANO 3d printer and accessories box with manual, filament, power adaptor, TF card, card reader, screw driver. Filament holder
3. Be sure to remove the “clips” in the left and front right corners of the printer. The clips are only for protection during transportation (As shown in the above figure 1)
- 4, install the filament holder at the left side or right side of the printer, right is best side. (Don't put on front side and back side. These two side will be not good for printing quality.) pls see the below picture show. And hang on the filament.



## 2.0 Slicer software application (STL format 3D file need be sliced to gcode format that printer can recognize).

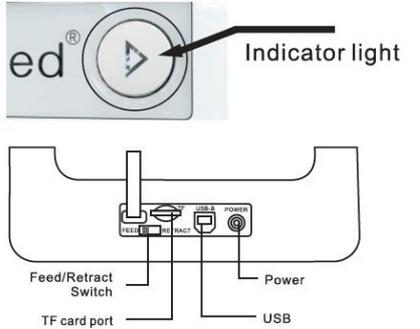
- (1).This 3d printer runs with it's own developed slicing software named Easyware , it is in the TF card included in the accessories box , please copy it to your computer and no need installation ,you can also download Easyware from official website, and you can watch Slicer operation video in Youtube channel. Easyware slicer can recognize STL format 3D file.

(2). STL format 3D file need be sliced to .gcode format, and save to TF card, and Insert TF card to printer, then can print 3D file. (3D Printer can read gcode format file only)

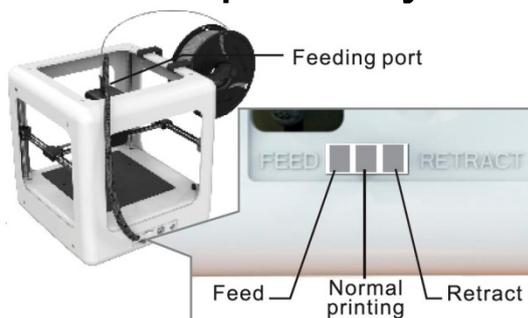
### 3.0 Connect and power the nano

1. Plug the provided original NANO power adaptor into the socket and the print button indicator light should be on.

2. If need to power off the Nano after printing is completed , unplug the power adaptor from the back of the machine when it's not printing .



### 4.0 3 Steps Easy Printing



#### 4.1 Install filament

**Feed:** before feed, you need make sure there is at least 3cm space between the nozzle and the platform(Press print button hold for 3 seconds and release, the printer head will raise 1cm each time),

- Insert filament into the guiding tube until it can not go further, and gently press the filament to keep it.
- Then use another hand to shift the gear (at the back of printer)to Feed "gear(As shown in the figure ) , the light inside the print button will flash.
- And **Please be patient and wait a few minutes** , Motor begins to pull the material into extruder gear. when the filament comes out from the nozzle, means filament load successfully,
- **Then must shift the gear back to the middle position.**

#### 4.2 Slicing model

- Down load Stl 3d model from internet , and use Easyware slicer to slice, and save it into the TF card. (pls name with english letter or Arabic number)
  - How to use Easyware slicer pls refer to the instruction of Easyware slicing software
  - CURA slicer can be used for NANO 3d printer too, but don't suggest for beginner user
- Warm Notice:** there is a gcode file inside the TF card when it come from factory.

### 4.3 One key printing



● Insert the TF card to the printer (**insert with right direction**), and press the print button, the printer will automatically warm up, and the light will flash.

**Please be patient and wait a few minutes,** then the printer start to print.

● Press print button to pause printing When the printer is printing, And Press again to continue printing.

● Press print button hold for 3 seconds and release, the printer will stop printing

### 4.4 Precaution

(1) Printing bed leveling, there are two ways to adjust the level of the bed.

● One is to leveling the bed when it printing, use the screw driver to adjust the 4 screws height in the bed, when rotate the screw closewise the bed will go down, When Rotate the screw counterclockwise the bed will go up.

● another is leveling before printer start to print

Pls you can watch video how to leveling in our Youtube channel "EasythreeD 3D"



(2) Bed removable after printing

You can remove the bed from the printer as the picture show below)



**4.5 Retract:** If want to replace another roll of filament or the machine does not print for long time then needs to retract the filament. First shift the gear to "RETRACT gear, the light inside print button will flash, And **Please be patient and wait a few minutes,** Motor begins to work, use hand to pull the material until it completely retract from the tube. then shift the gear back to middle position.

### 5.0 Online printing(For Experts ):

- 5.1, Install the USB driver in computer(inside TF card with USB driver or download in easythreed.com)
- 5.2, install the CURA software(inside TF card with USB driver or download in easythreed.com)
- 5.3, Driver and Cura Install instruction available (inside TF card or download in easythreed.com)



### **Safety Considerations**

Caution: Hot! Keep your fingers away from the Nozzle Tip and Black Insulator when the printer is on as these areas reach temperatures over 200 degrees Celsius. Always be sure to keep your hands away from moving parts when NANO is in operation .

## 6.0 Maintenance

- Do not try to use the methods those not described in this manual to disassemble or modify the machine, in order to avoid damage to the printer or other more serious accidents
- When power is cut off, regularly clean the printer with a cloth to wipe off dust and residue. If a wet cloth is needed, do not use flammable solvents to touch the internal circuit of the printer to avoid fire or electric shock
- Recommended temperature for the working environment: 5C-30C, do not air the machine body with a fan during the printing process
- Recommended humidity for the working environment: 20%--80%

## 7.0 Safety

### ● Safety and Warn:

Children under 10 years old use this printer should be with adult supervision, the print head exposed nozzle, extruded plastic, and areas near the nozzle may be extremely hot, Keep finger away from the print head and extruded material unless it has been unplugged for at least 10 minutes. Use the products in a well-ventilated area. Use the printer only as intended, as described by the user manual. Do not leave the product running while unattended.

### ● Precaution

None of components of the nano 3d Printer or parts printed from it or using filaments are certified for food safety nor should they be regarded as food-safe therefore should not come in touch with the mouth or foods/liquids that will be ingested by humans or animals

● Maintenance: Long time use or improper use, nozzles, nozzle assemble parts, or other may need to be replaced or cleaned, print platforms and its overlays may need to be replaced, the extruder may need to be cleaned.

## 8.0 FAQ

Q1: why the printing head can not move after pressing the printing button in initial printing?

A: Please remove the clips in front left and right conner before using the machine. The clips are for transportation protection

Q2: How to feed the filament and how to judge filament feed successfully?

A:First, straighten the filament and gently push into the feeding hole, at the same time, use the other hand to operate the screen to "in filament" choose it and confirm . Then wait about 1 minute (machine is warming up), release the material when feel the filament is caught by the machine. Then wait another 10 seconds to observe if there has "silk" coming from the machine. There is about 10cm filament come out. Till this time, filament feed successfully. If you operate based on the above steps, but no silks come out from nozzle after waiting for more than 5 minutes, please re-power machine and try again.

Q3: How to retract filament? How to solve when the filament can not retracted

A: slide the back gear to 'retract' gear, normally this way will retract successfully, if failed pls try to feed first, then retract again. Please Pay special attention that, gently pull up the material to help till filament completely get out of the printer head.

Q4: What's the reason that the model can not stick to the printing bed in the initial, printing or in the process of printing?

A: The gap between the bed and the nozzle too far, you need leveling the bed, use the method we mentioned above( 4.4 article)

Q5: What needs to pay attention to when adjust the printing bed? Need to check bed Before each print?

A: adjust the printing bed, need to use the screw driver in the accessories box to rotate the bed screws, when rotate clockwise the bed go down, when rotate counterclockwise the bed go up.

No need always adjust the leveling with every printing.

How to leveling pls refer to above mentioned(4.4 article)

Q6:How to judge what's the best distance between nozzle and printing bed?What is the difference when its too close and too far?

A:The standard distance between the nozzle and printing bed is the thickness of a piece of A4 paper, Insert a piece of paper between the bed and the nozzle, with normal pull and with resistance as the standard; in the condition that do not scratch bed. The closer it is, the firmer the model will be.

● The right distance between nozzle and bed: the "silks" are flat, spread on bed very smooth and no burrs.

● The distance is too far: the "silks" are round, spread on bed unevenly, with gaps and tilt. Filament come down to the bed is by gravity force. The rounded strips' adhesion effect is not good, they are easily moved. Printing effect is very unsatisfactory.

● The distance is too close: the "silks" are irregular protrusion (with burrs) on the both sides, but thin in the middle. Or there are no silks coming down. Or the bed is scratched with a deep trace .

Q7: Why do there twist lots of filament nearby the nozzle in the process of printing? Model become mess of silks?

A: there are several situation:

● When it happens in the initial printing, the distance between nozzle and bed is too far, the silks can not stick to the bed, so it would become messy filament. Please twist the 4 bed screws 90 degree anti-clockwise. If still not ok, then please twist 90 degree anti-clockwise again till normal printing.

● The bed is with oil, please use dry towel to tidy the bed, do not use hand to touch the bed directly.

Q8: How can i move the printing head X, Y?

A: Please unplug the power, then use hand to move the printing head to where you want. Please do not try to move the head up and down, Z axis can not be moved by hand.

Q9: How can i move the printing head up?

A: Only in the condition that the printer is power on but is not printing, press the printing bed for 3 seconds then release, it will goes up 1 cm.

Q10:Does the printer need warming up before each printing?

A:There needs to warm up when feed and retract operation,In the normal printing, you only need to choose the model and wait about 1 minute,then printer will start work.

Q11:Can the model continue printing if electricity is cut off?

A:If there is no electricity in the process of printing, the models can not continue printing.

Q12:Can pause printing in the process of printing?

A:Yes, press the printing button, it will pause. Then press again,it will continue printing.

Q13:How to stop printing?

A:Please press the printing button for 3 seconds then release,then it will stop printing(precaution:can not continue printing after stop).

Q14:Filament will run out soon in the process of printing, What should to do?

A:Please pause the printing, then slide the switch to retract gear, use hand to pull up the filament.(precaution:please do this before all the filament goes into the feeding hole,or there will be no filament hand can pull up).Then put new filament into the hole and use another hand to slide the switch to feed gear, wait about 10 seconds till the filament come down.Then slide switch to the middle gear and press printing button shortly to resume printing.Please pay special attention that ,after feeding 10 seconds, timely slide switch to the middle gear in avoid that the the filament pimple appear in the model.

Q15:When print the first layer,there is no filament on the bed ,why?

A:Please check if the distance between nozzle and bed is to close cause no space for filament to come out.

Q16:Can the\_machine print online?

A:Yes, it needs to use third party slicing software CURA. Please refer to the above step of point 5.0 Online printing(For experts)

**Thanks for choosing Easythreed, we will try our best to serve you**

**ShenZhen Easythreed Technology CO.,LTD**

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