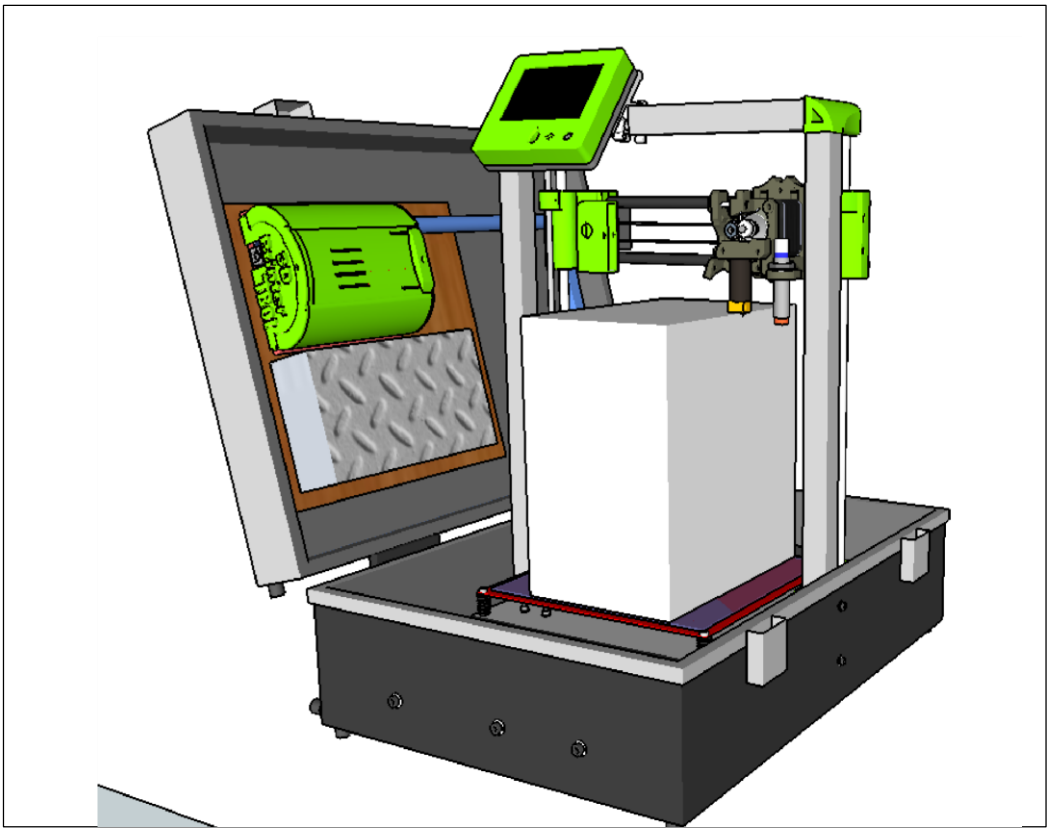
TeeBoT

The Opensource Suitcase 3D printer.



FOLDABLE 3D PRINTER

DESIGNED & DEVELOPED BY:

EMMANUEL A ADETUTU

EINDHOVEN

THE NETHERLANDS

TABLE OF CONTENTS

INTRODUCTION.

Thanks for supporting TeeBot!! And welcome to the world of 3D printing if this is your first printer.

The TeeBot suitcase 3D printer was designed for 3D printing enthusiast on the move.

Terms and condition.

Please note you are completely responsible for the build, use, and operation of your 3D printer. Do not leave 3D printer unattended, always print in well ventilated places. Follow the safety guide for the filaments you use.

LIABILITY

Neither 3DstuffsNL nor its designer or suppliers shall be liable for any indirect, incidental, consequential, special, punitive, or exemplary damages which might arise out of the USE, BUILD and OPERATION of your TeeBot 3D printers.

CAUTION

A 3D printer works by melting plastic or materials at temperature up to 260 degrees or more!! Touching the nozzle at that temperature will burn in less than a second!!

Do not touch a hot Nozzle or bed.

Do not leave a 3dprinter unattended!!,

Do not print in poorly ventilated rooms or space.

Printing any other material other than PLA requires extra ventilation.

You are responsible for any Item produce or the use of your Teebot 3D printer.

You cannot claim damages caused by the use of the Printer.

As with any tools, machine or equipment operating in a safe and clean environment with smoke alarms, fire extinguisher and most importantly absolute patience and care is required.

Keep children away from a working printer. (They tend to touch everything!!)

Starting from what is 3D printing? Going through the agonizing pain of building a DIY kit up to my first terrible print and now designing and building my own printers. I still have those moments where the prints fails… the filament runs out., un explainable out comes, print head crashing into beds, print fail after 98% (15 hour of print) and many many many many more…

…But the sight of a complete print and the translation of an imaginary object into real physical object within minutes keep me going.

A 3D printer is fun to work with. Enjoy and have fun 3D printing.

GETTING STARTED WITH YOUR TEEBOT 3D PRINTER.

This manual provides you with an overview on how to unpack and get started with you printer.

Please report any error detected in this documentation.

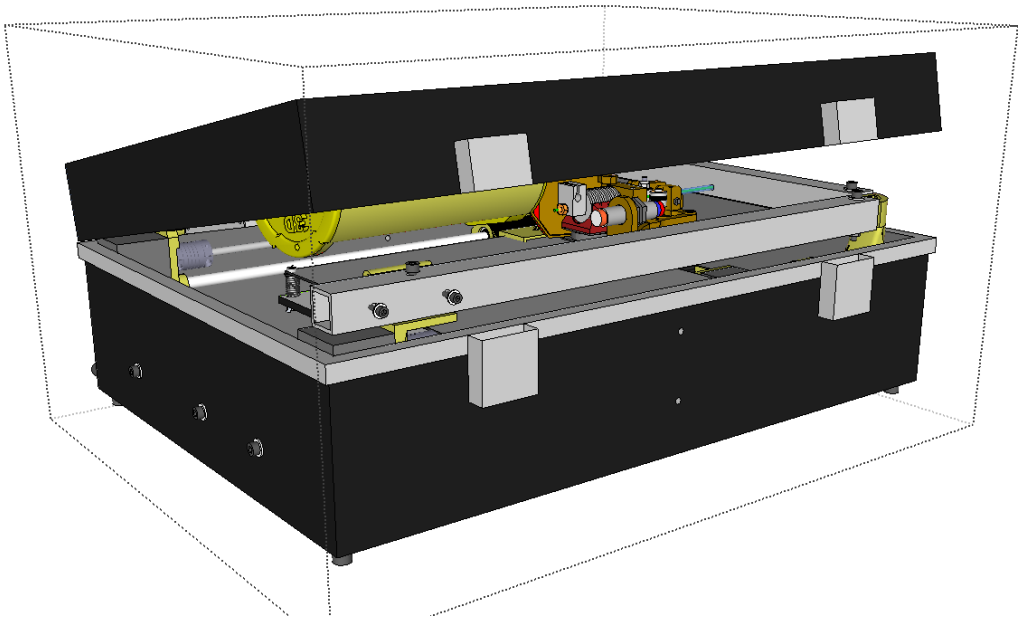
DAMAGE DURING TRANSPORT.

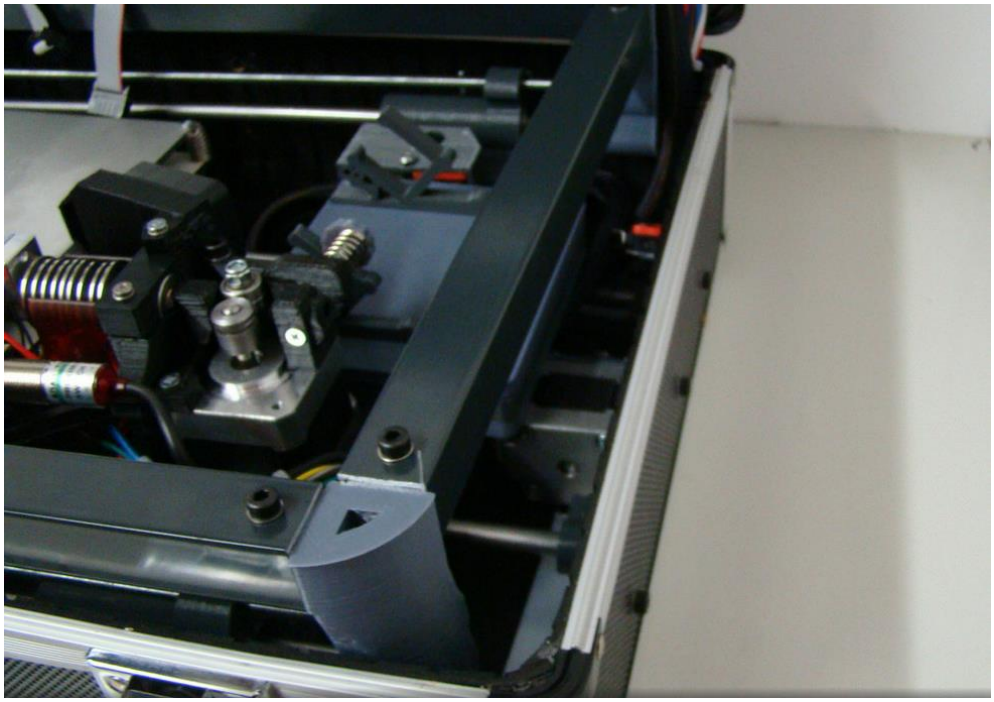
Care has been taken to ensure that the printer arrives undamaged. Please make a general inspection to ensure that you printer has not been damaged by the courier/shipping company.

If there are any broken unusable part please make a photo and send an email with the photo Taken.

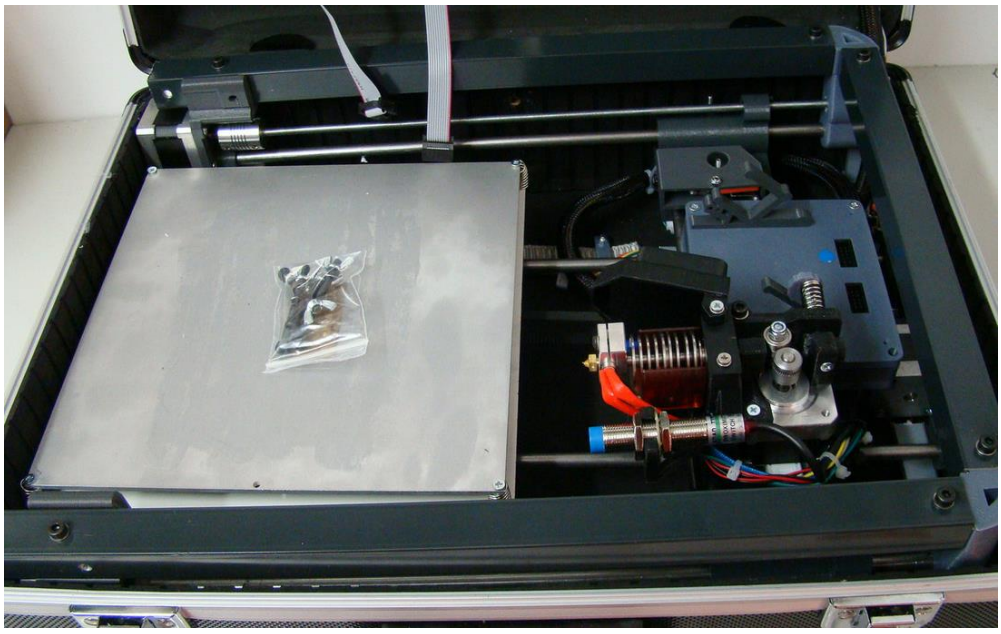
UNBOXING THE PRINTER

1. Carefully remove all extra bags of Items included in supply.
2. Remove all bubble wrap round the printer by carefully cutting the tapes.
3. Carefully Open and Raise the printer cover

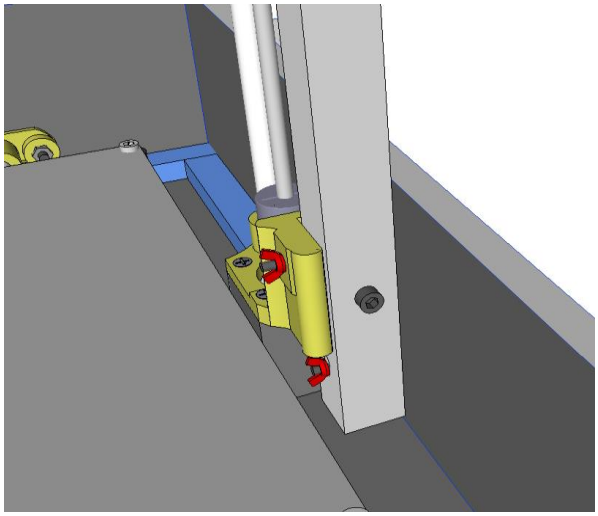


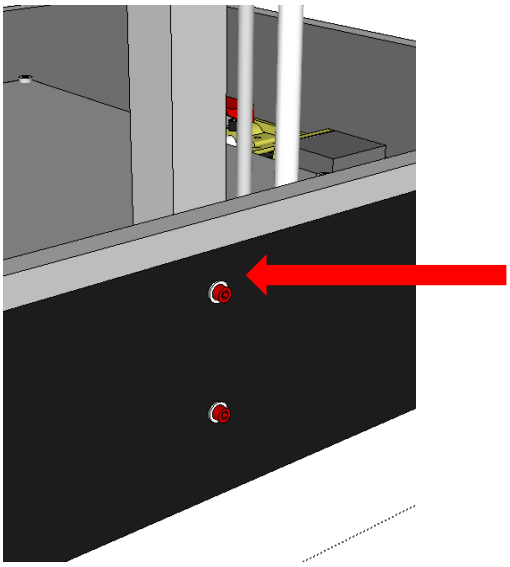


4. Remove all bags of screws and accessories.

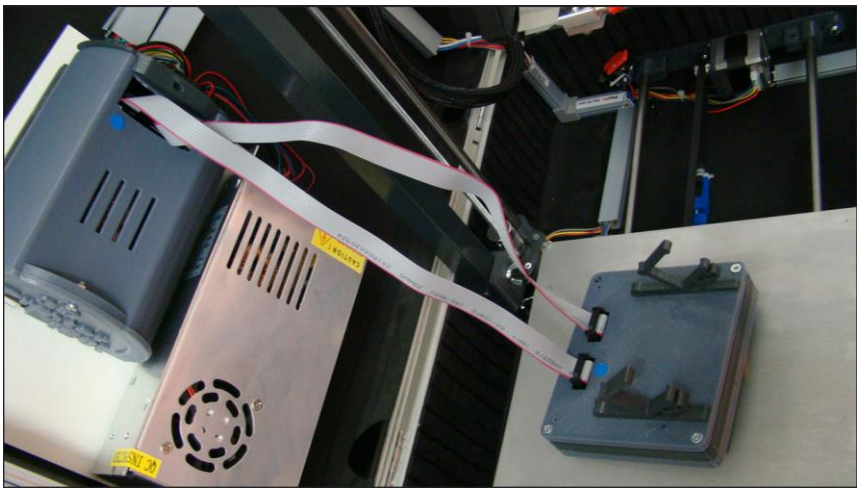


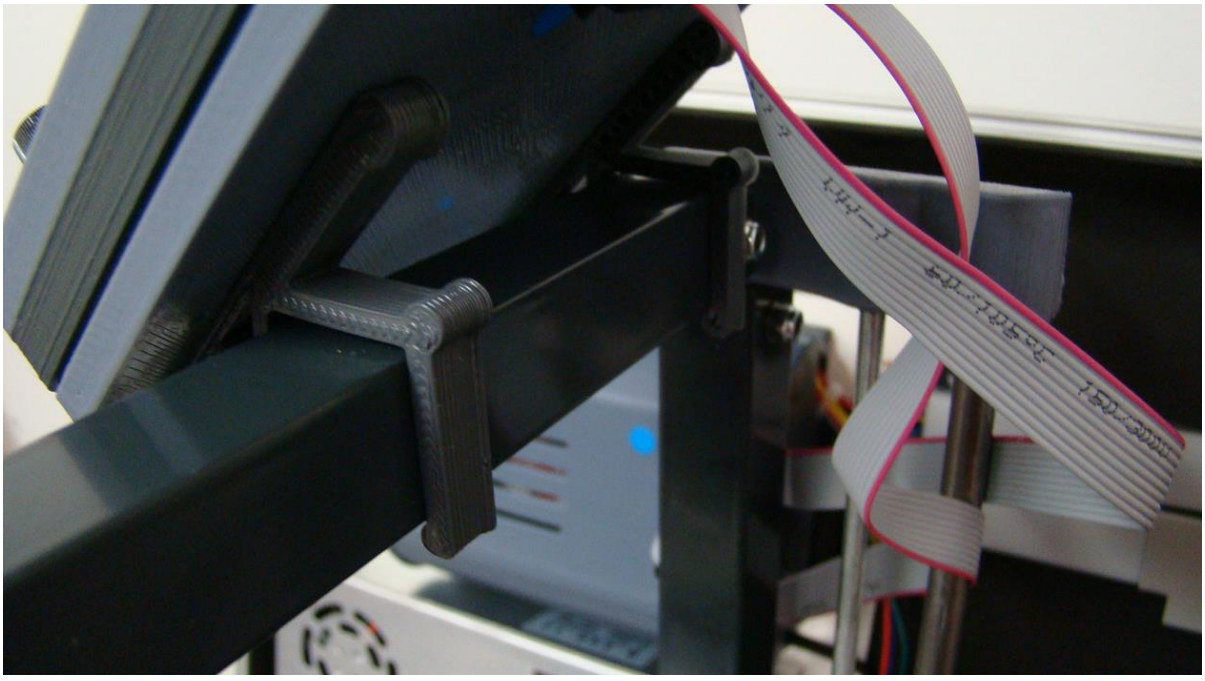
5. Raise the Z_axis/ print arm into position and use the four wing nuts to lock them down. Note that the longer bolts is used in the top side.





6. Connect the LCD controller as shown and mount it on the top of the Z_Axis/print arm.





Power setting:

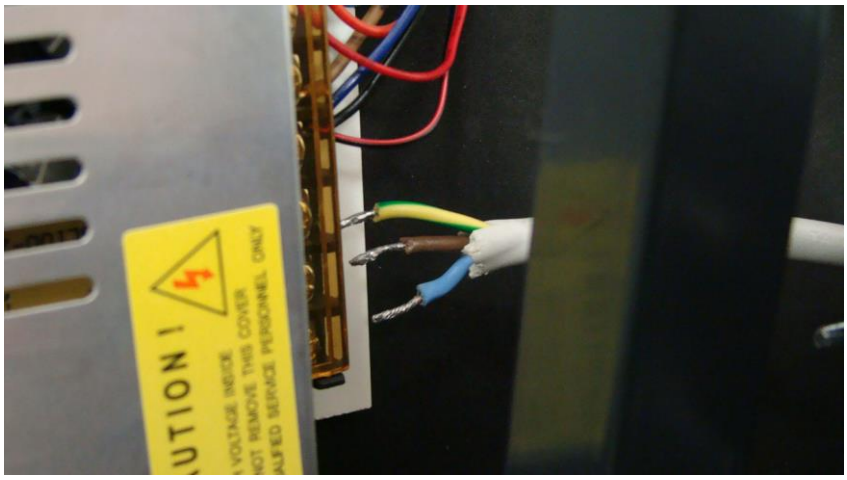
Voltage Setting

Please check the voltage setting of the power supply, make sure it matches that of you mains electricity.

Default is set to EU 200-220V

Power plug

You will need to install a power cable to the power supply of your printer.

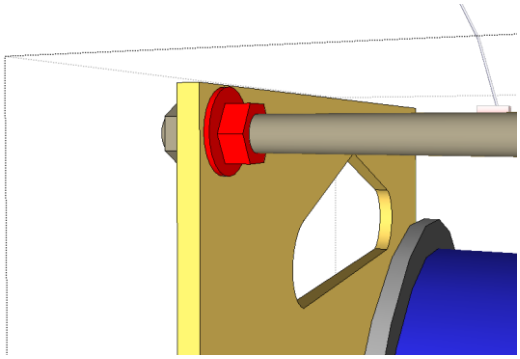


- Find a good power cable, any PC/ hot water Kettle cable is good enough.
- Cut the end, and strip the cables
- **Apply soldering to prevent the cable strands from loosening!**

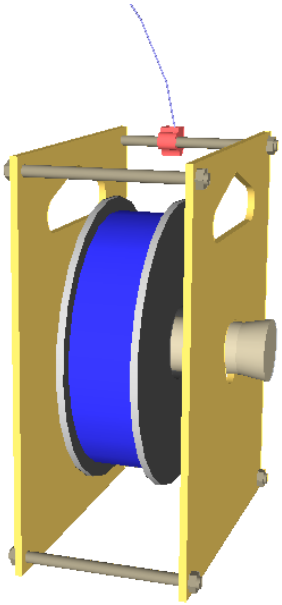
FILAMENT SPOOL HOLDER

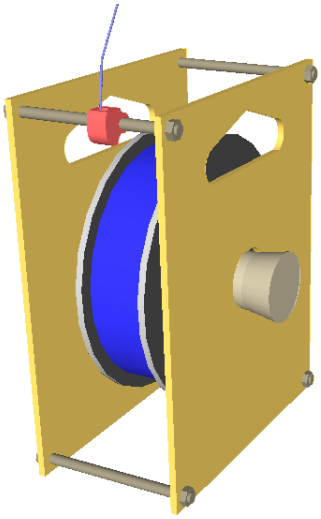
Due to packaging, the filament spool holder is not assembled, you will have to assemble the spool holder.

- Washers are on each side of the board.

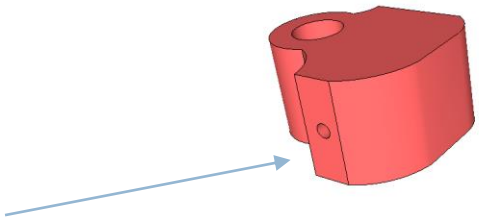


- The domed shape nuts are on the outside.
- The filament guide is in the middle of the top

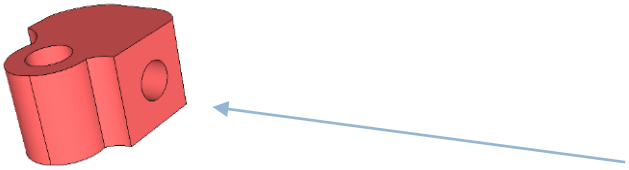




Make sure the hole on the small side is at least 2.5mm



Make sure the hole on the big side can fit the supplied Teflon tube.

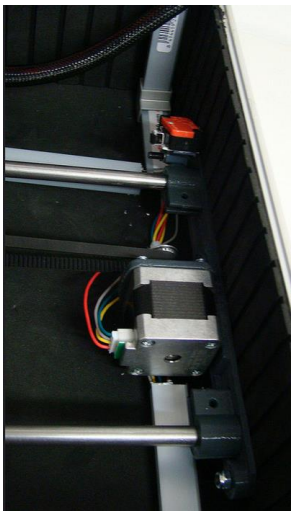


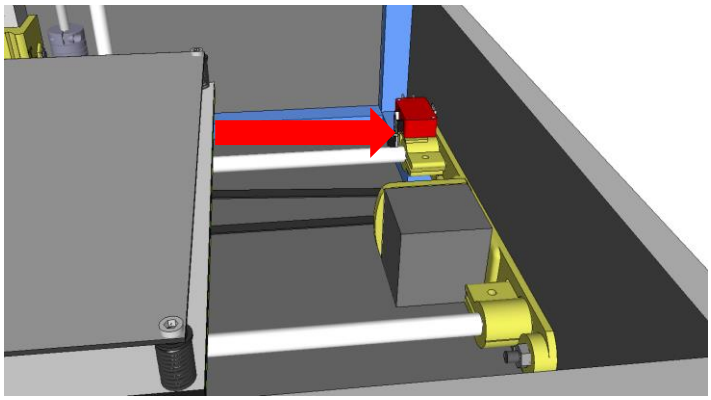
TEST PRINTING.

Your fully assembled printer has been tested, we leave a sample print object on the bed for you to see.

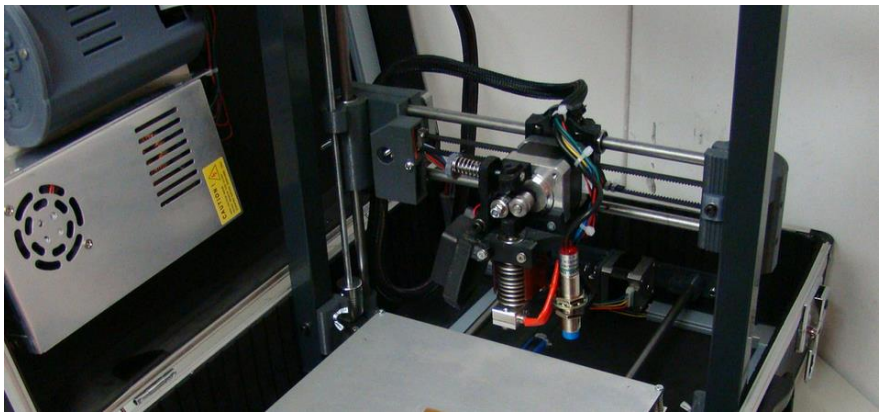
This object Gcode you can always print from the supplied SD card.

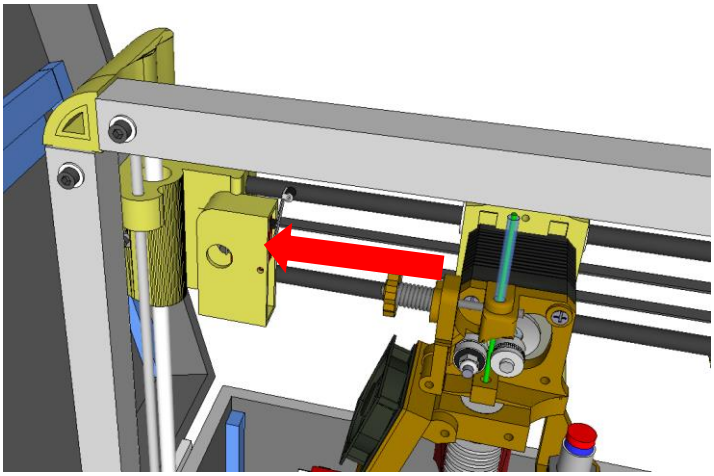
1. Start by ensuring that the Y axis Bed is able to touch and trigger the Y axis limit switch. Do this by moving the print Bed with your hands all the way to the back. If the limit switch has moved or not aligned please align it properly and ensure the switch can be triggered.



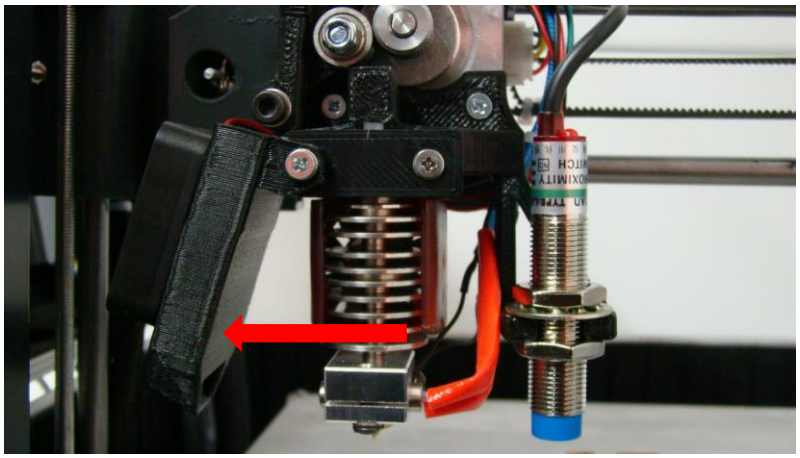


2. Do same for X Axis ensure that the extruder head when pushed all the way to the left is able to trigger the x Axis switch.

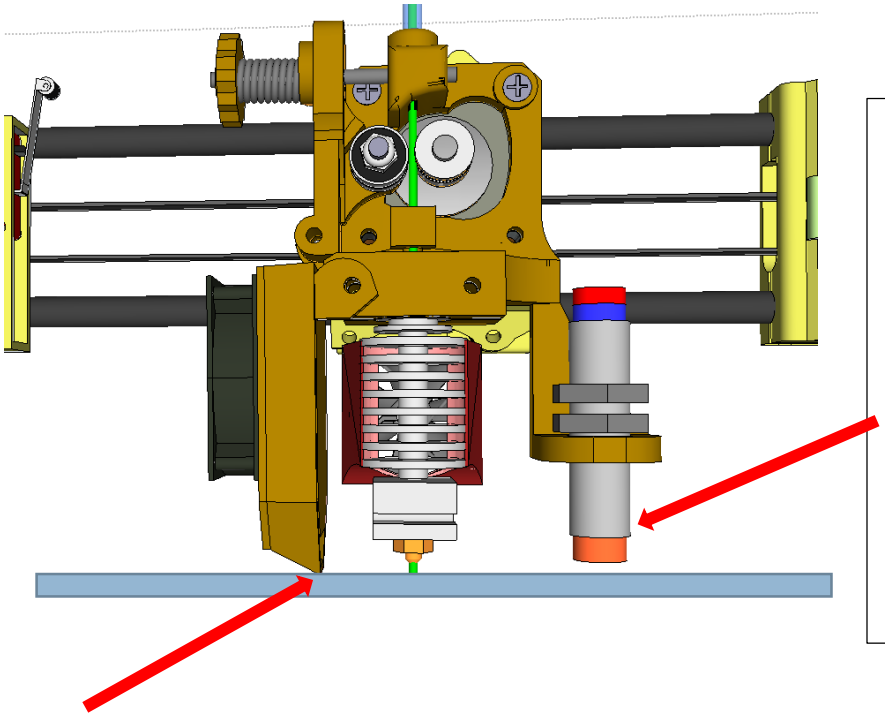




3. Ensure that the side cooling fan is tilted away from the hot end at an angle.



Correct positioning of the side fan.



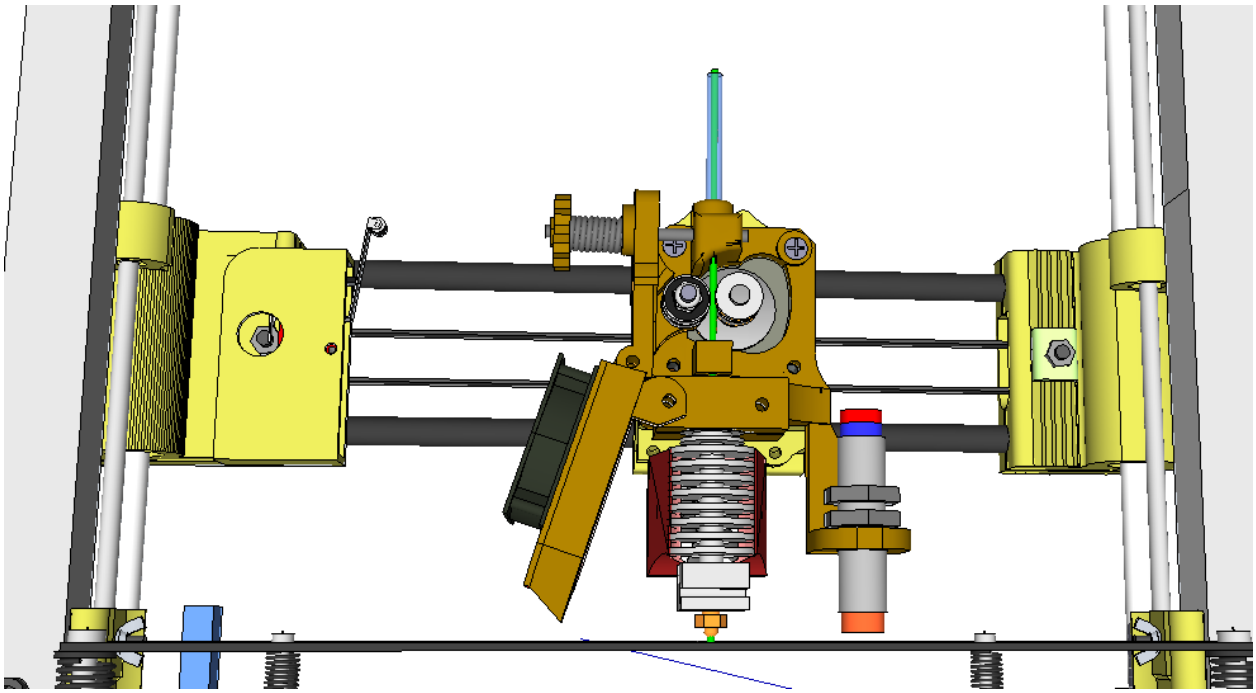
Wrong positioning of the side fan.

This will prevent the proximity sensor to move down enough to detect the heatbed when it is about to start printing.

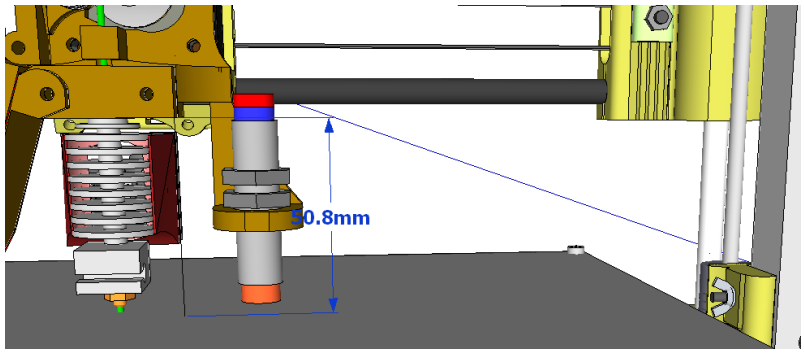
If this happens you have to immediately turn of the printer and re align the printer.

Prevents the print head from going down.

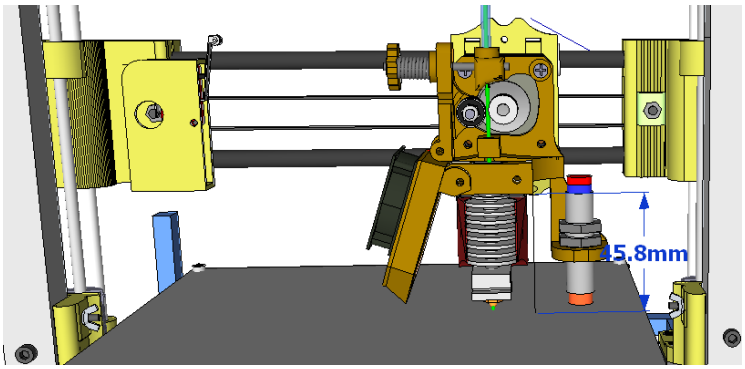
4. Ensure that the X axis is as level as possible.



You can achieve this by first ensuring the heat bed is levelled. And then measuring the distance to the heat bed from the nozzle on each side of the printer.



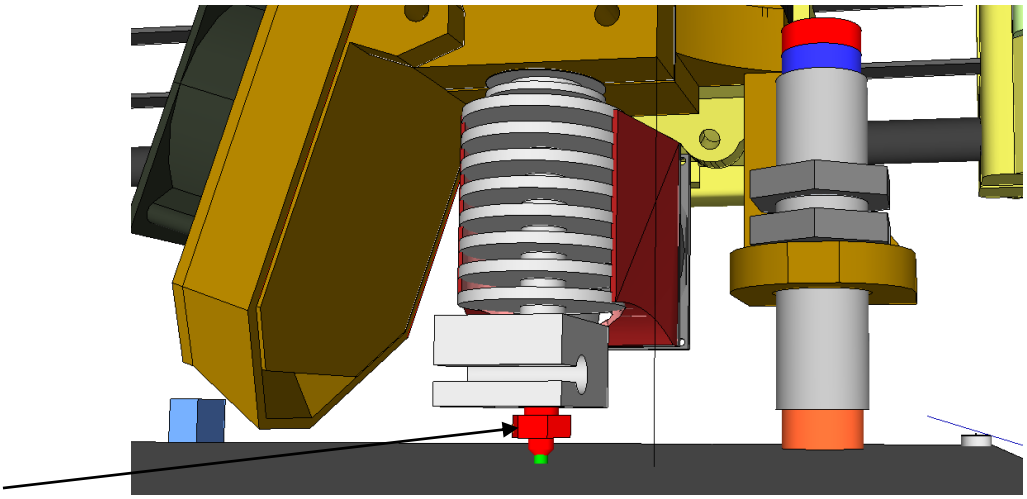
Measure a fixed point to the heatbed on both sides.



In the example above the right side is about 5mm shorter than the left side. You can fix this by manually turning/screwing the right side up or left side down.

LEAKING NOZZLE

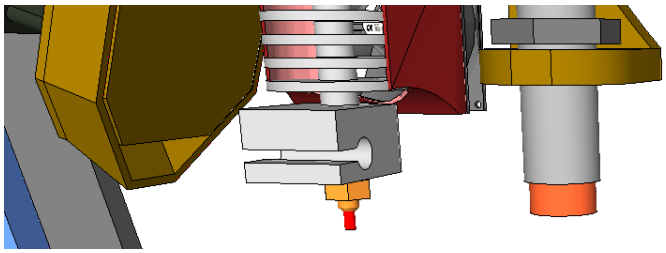
After a few use you might experience a leaking nozzle while printing. This can be fixed by tightening the hotend tip. While the hot end is hot, heated to around 180-200 degrees. Grab the block with a plier and use the correct size spanner tool to lock the nut as tight as possible.



After tightening there should be at least 1 mm gap to the heat block!!

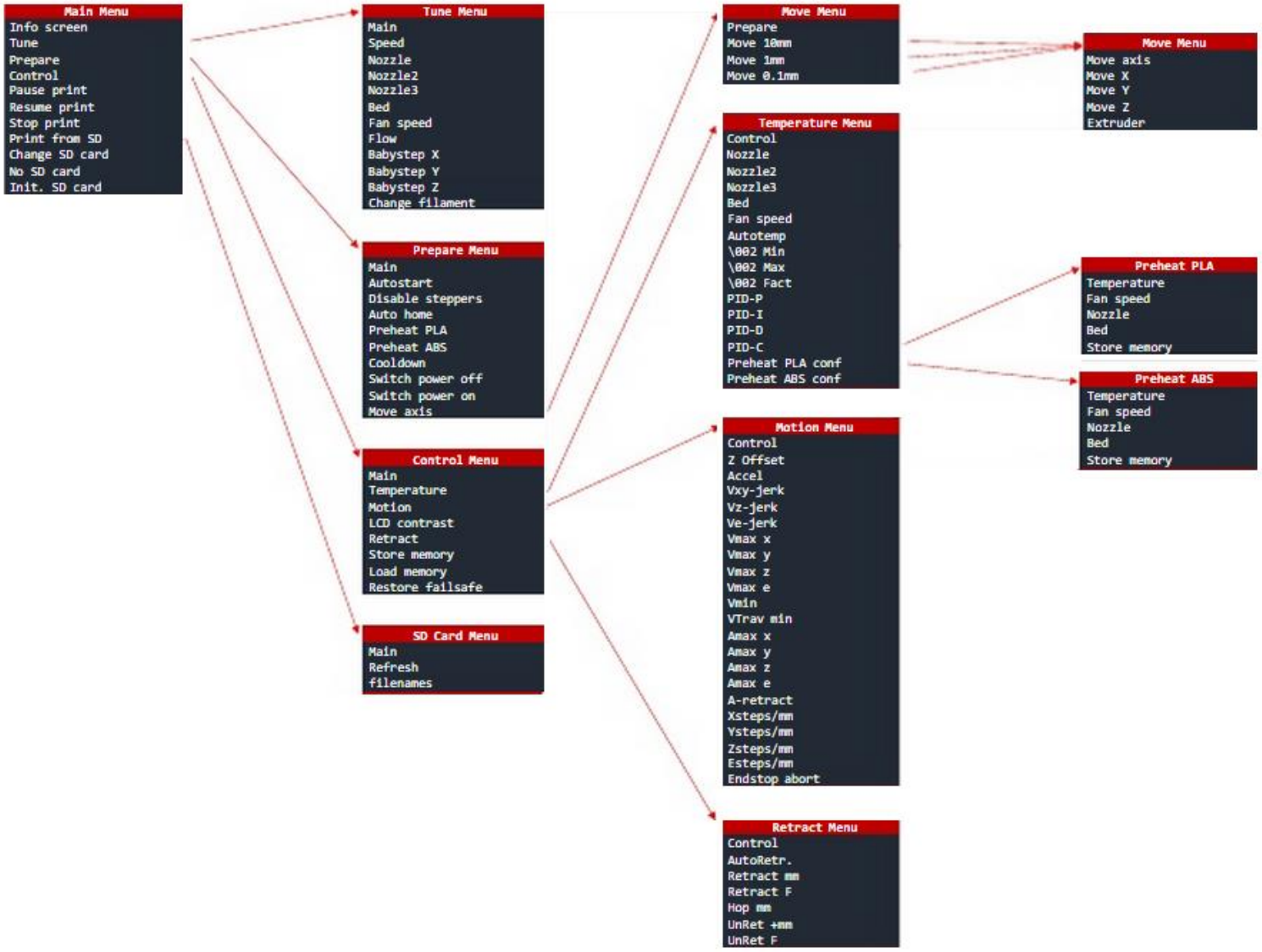
PRINTING CHECKLIST

1. Ensure that the gantry/upright column are fasten tight in place using the 4 wing nuts.
2. Ensure that nothing obstruct the X axis and you are able to manually (without power on the printer) push the X axis/Extruder head all the way left to the switch and to the extreme right.
3. Ensure that nothing obstruct the Y axis and you are able to manually (without power on the printer) push the X axis/Print bed all the way back to the switch and to the front as well.
4. Ensure that the X axis is leveled as described above, also that the side fan is in the right position.
5. Make sure the Printbed as a good layer of glue stick on it.
6. Snap away/Break or remove any leftover filament hanging at the tip of the nozzle. This can prevent the Z axis sensor from reaching the heatbed when cold and hard.



7. Load the prepared Gcode and start the print.
8. The first 4 layers are the most difficult, always be prepared to disconnect the printer in case anything goes wrong.

Marlin LCD Menu Tree



SOME NICE MENUS

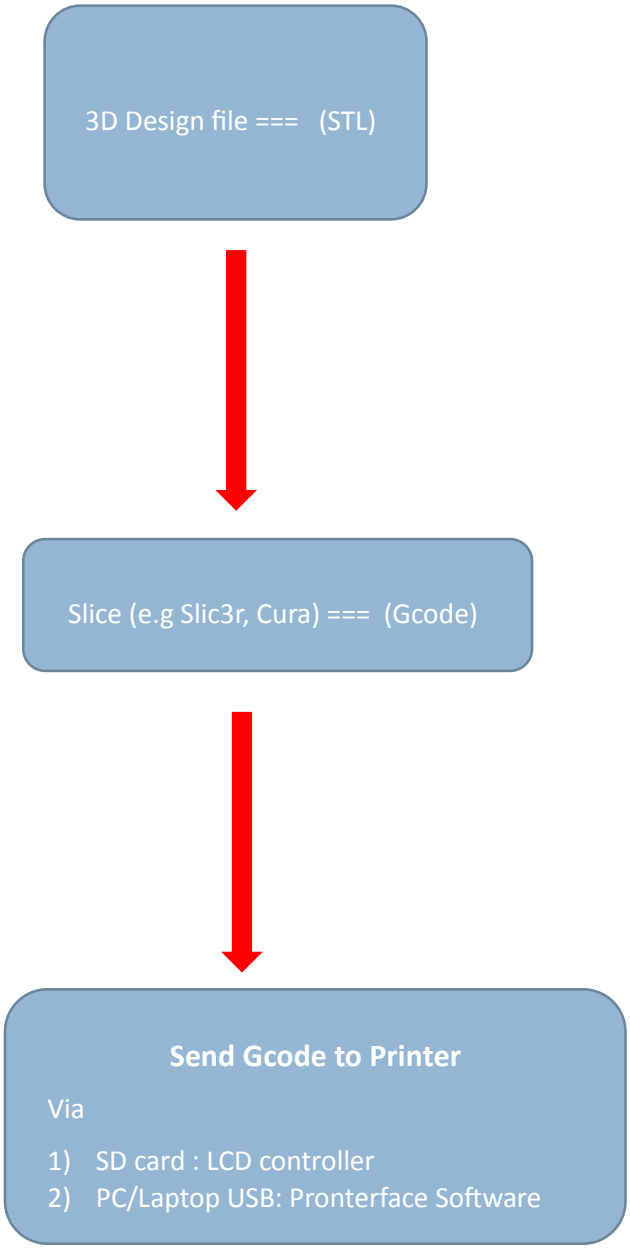
Print Speed adjusting: While printing, turning the knob from the main default page, Increases/decreases the print speed.

Change Filament Menu: [Tune – Change Filament]

- Pause the print,
- Move to a safe location
- Ejects the filaments and beeps until you insert a new filament.
- Continue printing by tapping on the knob.

Adjust fan speed: [Tune –Fan speed]

GENERAL 3D PRINTING PROCEDURE.



GETTING HELP.

THE PRINTER IS A REPRAP STYLED 3D PRINTER.

1. Forums and blog online. I recommend searching online and reading about other people's solution to similar problem via special forums/blog. E.g the Rerap forums (http://forums.reprap.org/)
2. Post photos of your questions or issues if possible make a short video and share. You are more likely to get an immediate answer.
3. Attend Makers meetup, hacker's event and 3D printing events around you.
4. Send an email. info@3dstuffs.nl

IMPORTANT CONTACTS

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