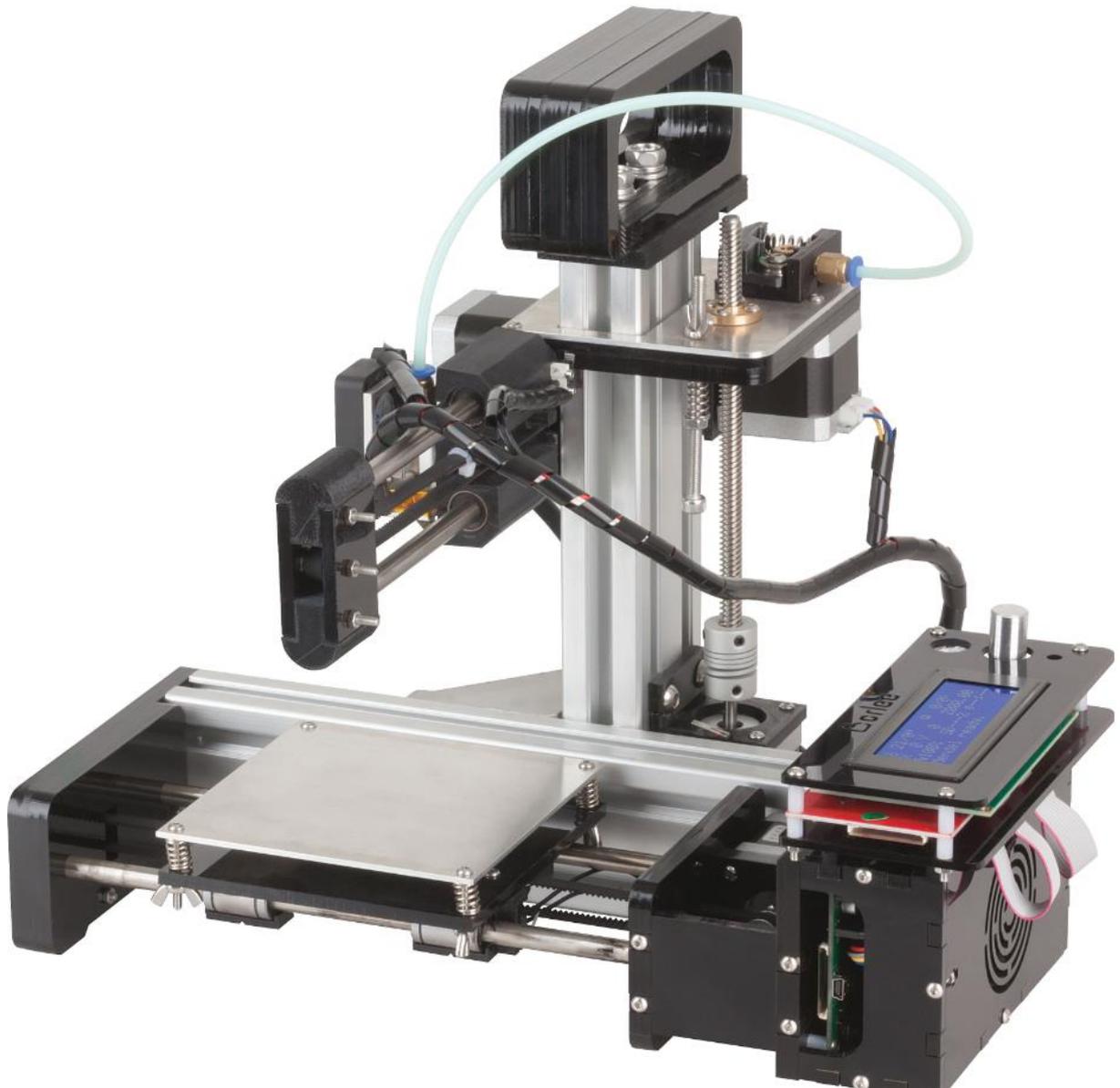


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Mini 3D Printer TL4076 USER MANUAL



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Warnings and safety

Please be aware that some parts on this machine get extremely hot and should not be touched at ANYTIME while in operation including, Nozzle and the hot end extruder.

Always remember to take care around the moving parts of this machine there are pinch points which may cause trapping and injury.

Please do not leave the machine unattended. If there is an issue with the printer it may cause jamming and blocking which may damage the printer.



Unboxing and assembling

Congratulations on your purchase of your TL4076 Duinotech Mini 3D Printer, here we will take you through the steps of not only unboxing your new printer but also the steps needed to get you printing.

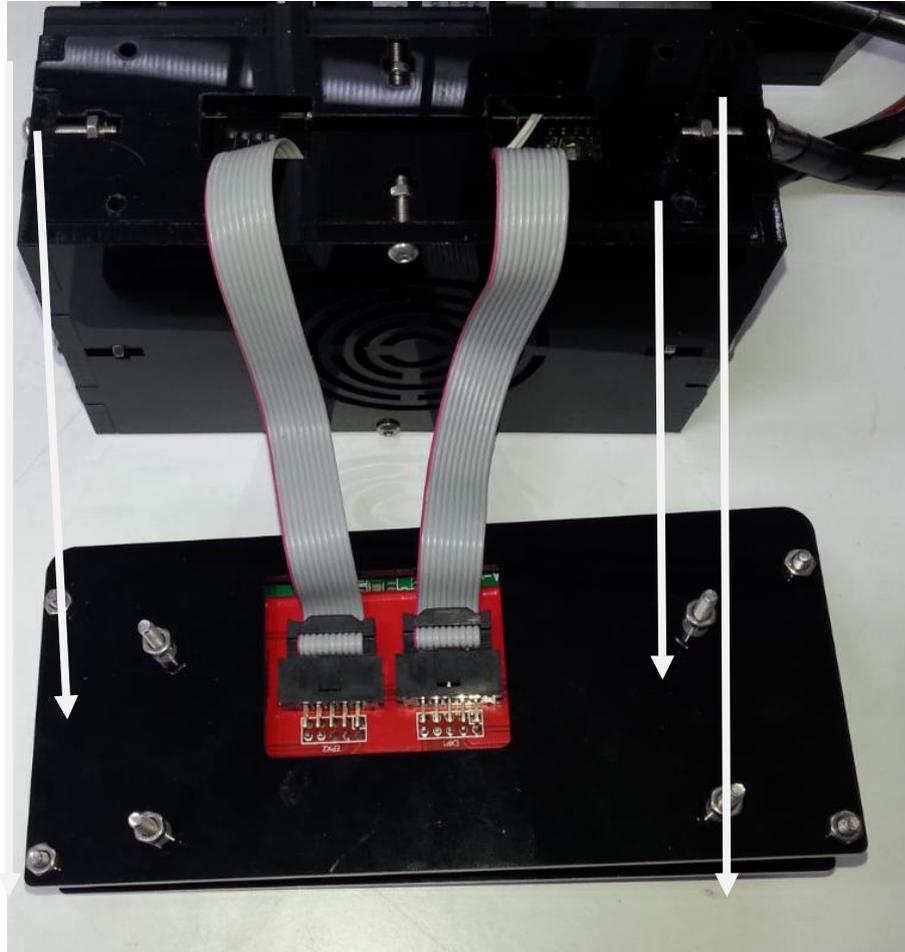
Contents

- Mini 3D Printer
- Power Adaptor
- Screen and SD Card Module
- Filament
- Tool Kit
- Filament Spool Holder (assembly needed)

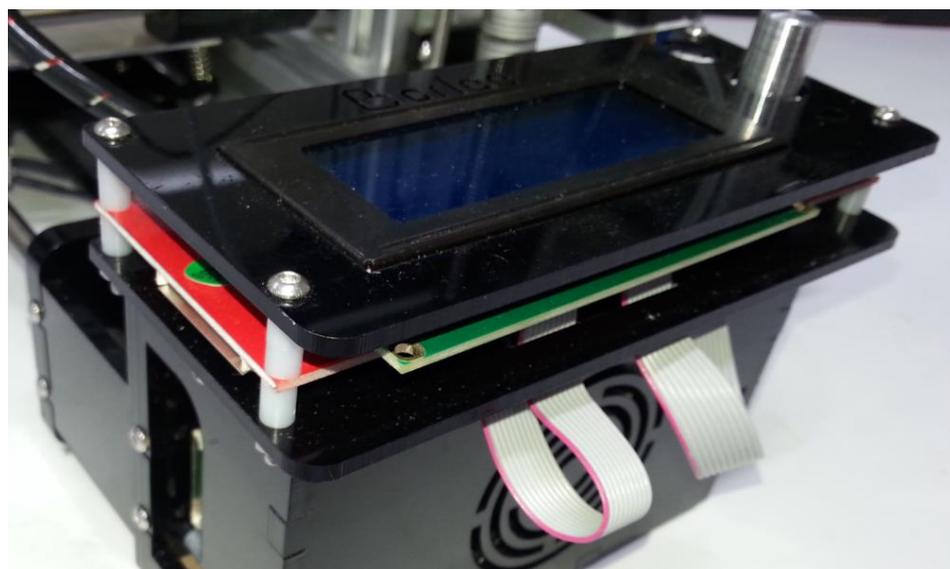
Remove the printer from the packaging, making sure all foam is removed from the printer. Place Printer on a flat surface.

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Remove the screen and power supply from packaging. Start by first attaching the supplied screen please refer to the images below:

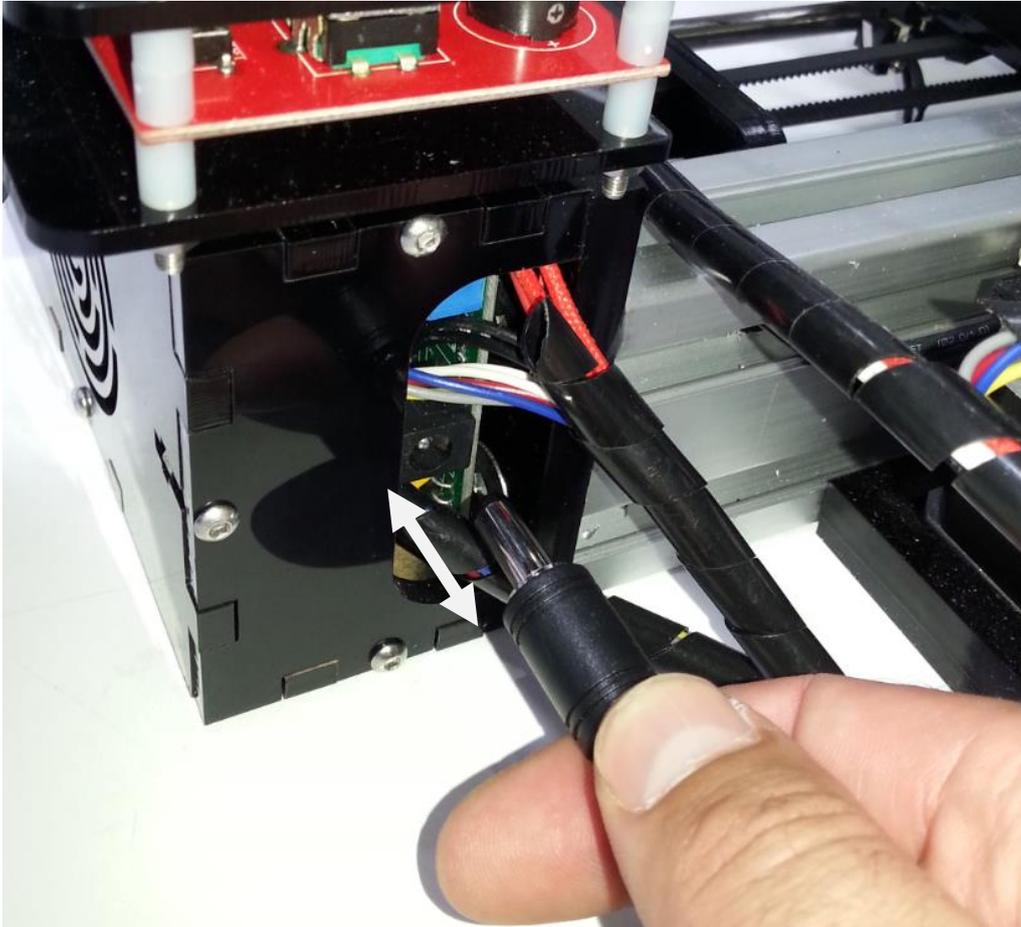


place the screen on the main enclosure as below image



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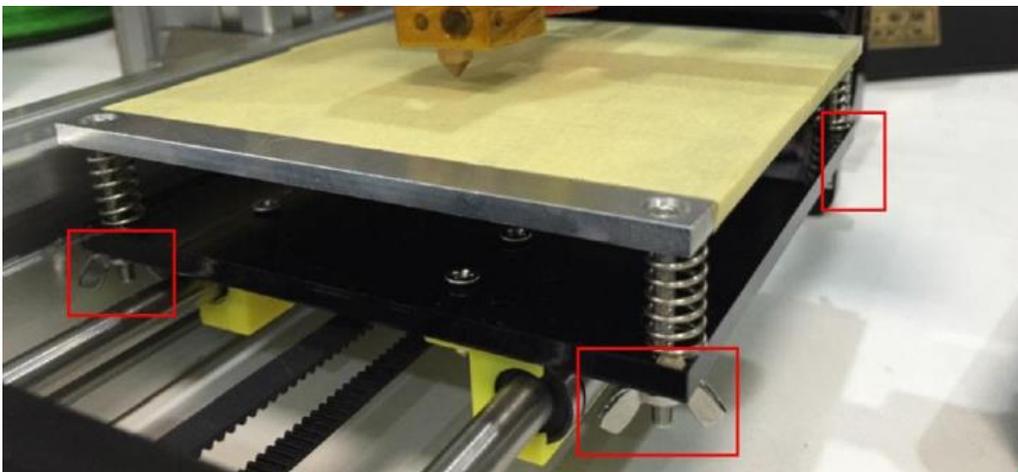
Install power supply cable as below:



Power up unit via wall socket adaptor.

Calibration

1. Proceed to menu via clicking down on the control knob on the screen module.
2. Rotate knob till arrow is on the 'Prepare' option.
3. Click knob to enter prepare and rotate knob to auto home and click in to select auto home.
4. The printer will now move to its home position. If the printer makes a loud buzzing noise, turn it off as something may be caught or jammed.
5. Once Printer has moved into its home position, switch the unit off at wall socket.
6. Ensure that at each corner of the bed there is above 0.1-0.15mm gap between nozzle and bed, otherwise the filament cannot transmit from the nozzle to bed. Adjust the wing-nut at each corner of the bed to change the relative height. A good indication of the correct spacing is that a piece of A4 paper should just be able to be pushed between the bed and nozzle.
7. The bed can be moved left and right by hand when the power is turned off, and the nozzle moved back and forth.

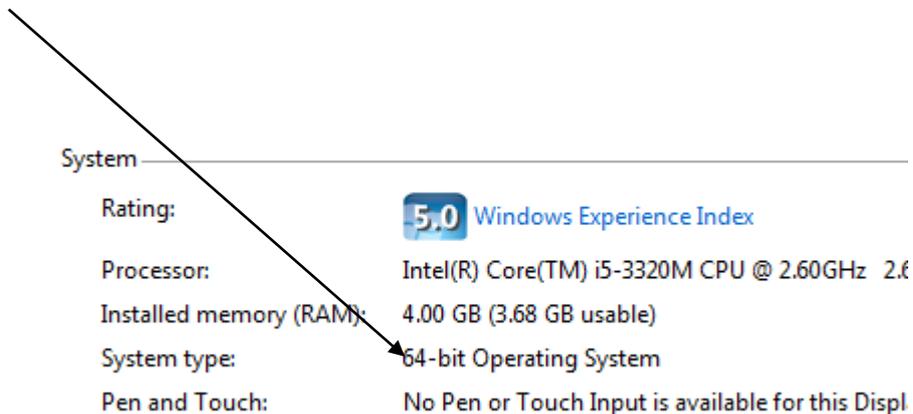


Software Install

These instructions have been written for Windows 7, but will be similar for new versions of Windows.

1: Find out if you need to use the 32bit or 64bit version of Slic3r by following these simple steps.

1. Click Start Button.
2. Right click Computer.
3. Click on Properties.
4. See System Type under System to see if your System is 32bit or 64bit.



2: Open the appropriate (ie 32bit or 64bit) zip.

3: Copy the Slic3r folder to your 'My Documents' Folder.

4: Right Click on the Slic3r application in the Slic3r folder in your My Documents folder and select Create Shortcut. Then drag the shortcut to your Desktop to create a Desktop Shortcut.

Documents library
Slic3r

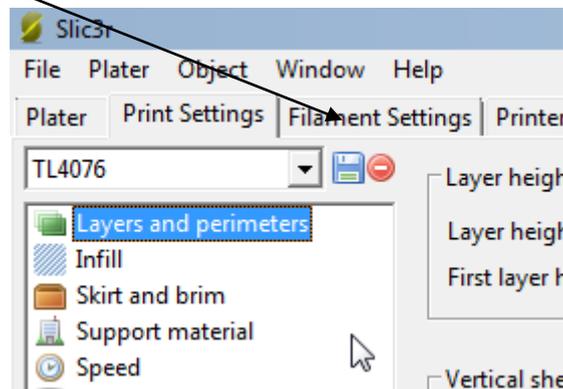
Arrange by: Folder ▾

Name	Date modified ▾	Type	Size
res	24/03/2016 9:51 AM	File folder	
cpfworkrt	24/03/2016 9:51 AM	File folder	
dll	24/03/2016 9:51 AM	File folder	
lib	24/03/2016 9:51 AM	File folder	
bin	20/06/2015 2:21 PM	File folder	
slic3r	20/06/2015 2:21 PM	Application	576 KB
slic3r-console	20/06/2015 2:21 PM	Application	576 KB

5: Start Slic3r by double clicking the shortcut. If a warning pops up, click 'Run' Slic3r will start the configuration wizard. Press cancel, then select File>Preferences and change the mode to 'Expert'. Slic3r will need to be restarted, so close it and then reopen using the shortcut you created before.

6: When Slic3r reopens, click File>Load Config... and find and open the TL4076.ini settings file. Make sure TL4076.ini is showing in each dropdown box in the top right of the Slic3r window.

7: Click on the Print Settings tab, and save the settings by pressing the disk icon, then OK. This saves a copy of these settings.



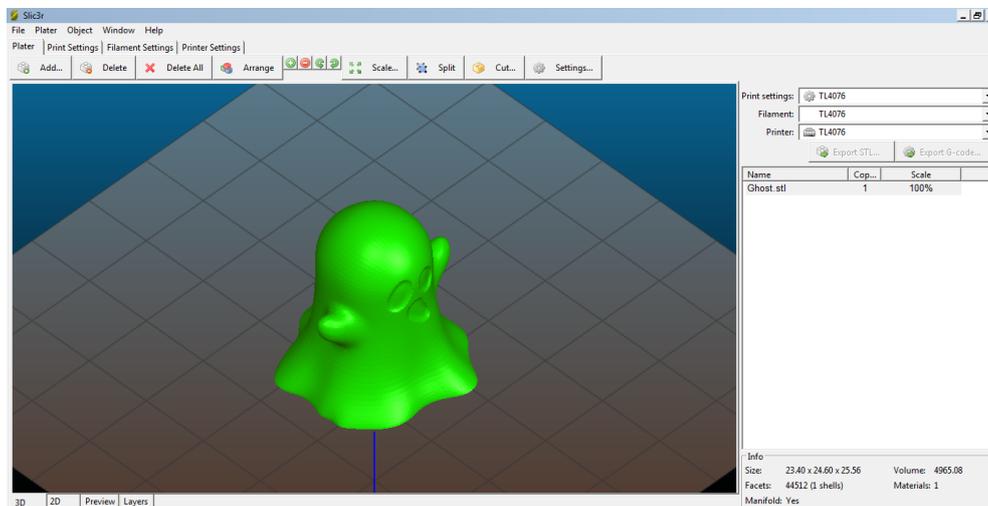
8: Do the same for the Filament Settings and Printer Settings tabs, then click on the Plater tab. The settings dropdown boxes in the top right corner will now show TL4076 (without the .ini).

9: Slic3r is now ready to use.

Using Slic3r to prepare 3d files for printing on the TL4076

Open Slic3r and ensure the TL4076 profiles are set in the dropdown boxes in the top right of the Slic3r window and that the Plater tab is selected.

Find a .stl file (websites like <http://www.thingiverse.com/> have heaps of 3d files to download). To open a file in Slic3r, simply drag and drop it into the Slic3r main window.



Slic3r will automatically centre it on the bed. You can also open files by clicking on the Add... button. You can rotate the view by clicking and dragging with the left button, and pan by clicking and dragging the right button. Check that the object fits inside the bed (if not, you can select Scale... to reduce or enlarge the object).

Click on Export Gcode and save the file to your SD card. The profile we're using does the following:

- 1: Starts heating the nozzle.
- 2: Moves the printing head to the home position (the back left corner of the bed) then moves to 3mm off the bed.
- 3: After the nozzle has reached the target temperature for 10 seconds, the nozzle purges the filament, and then creates the 'skirt' (this can be seen in the Preview or Layers tab on Slic3r). The skirt let you observe that the filament is flowing correctly. After the skirt is finished, the main object starts printing.

Loading Filament

Turn printer back on and let the nozzle pre heat by going through your menu options and click on

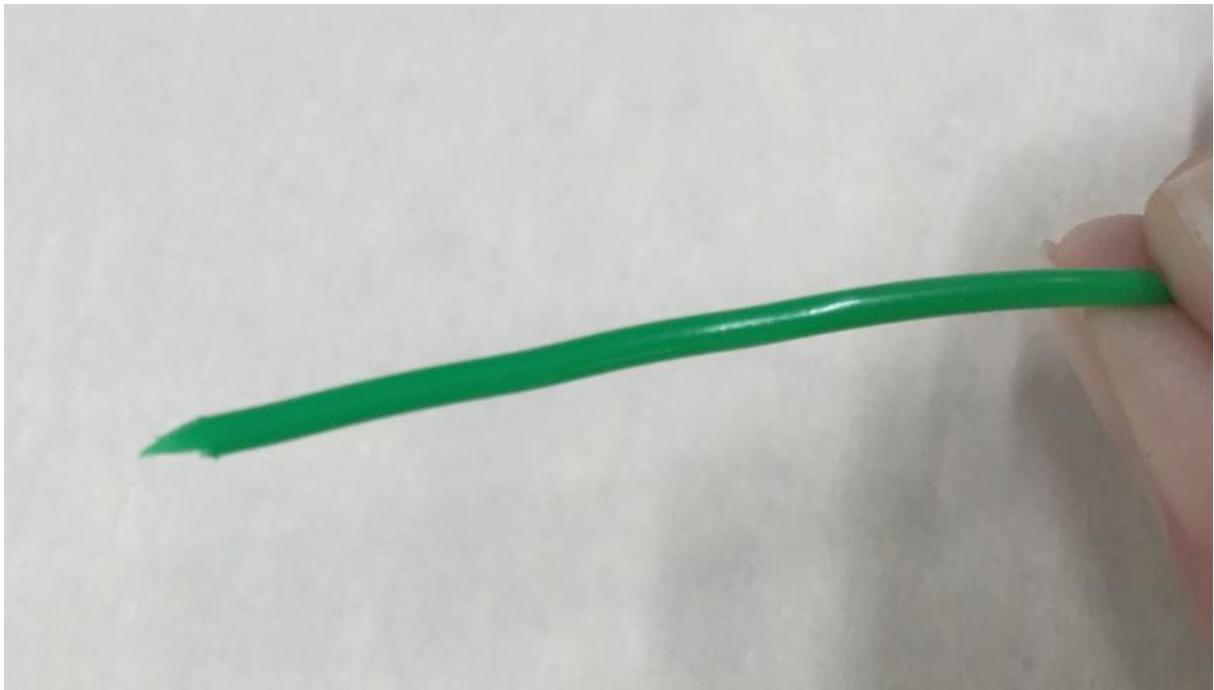
Control - Temperature – Nozzle

And turn knob to adjust temperature the optimal temperature is 200°C

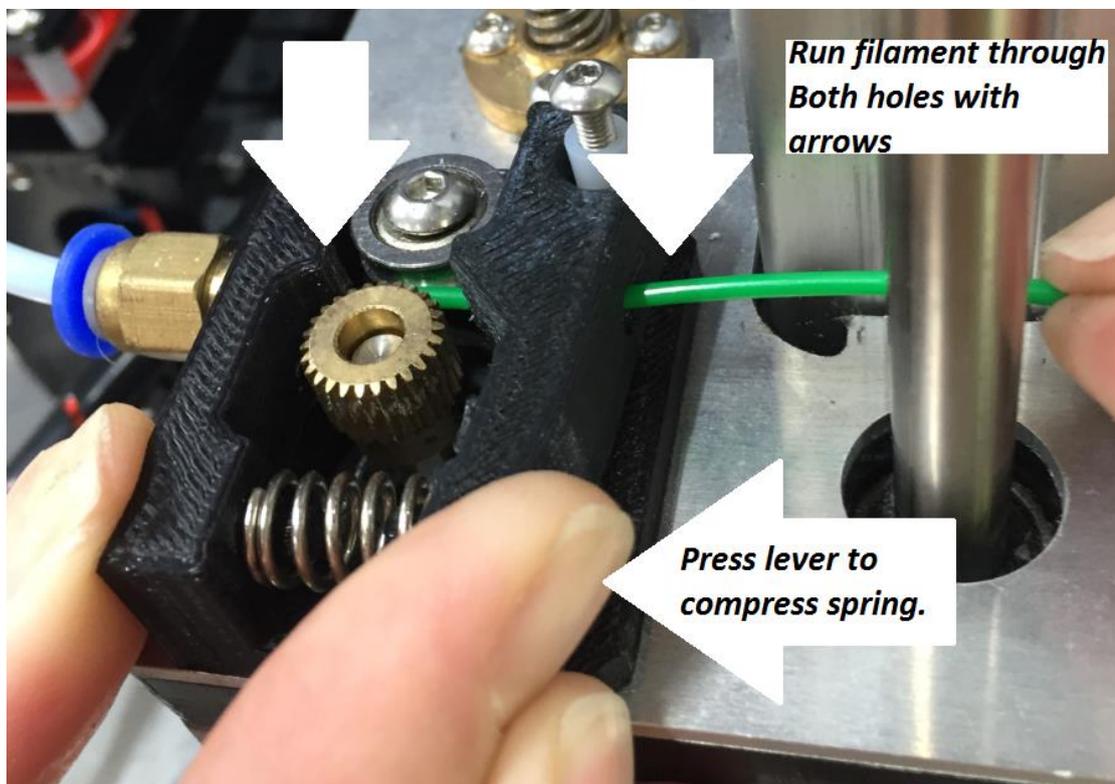
1. Begin by constructing the filament spool holder.
2. Load the filament onto the holder and place the bolt through the filament spool centre, refer to image below



3. From here we cut the end of the filament into a sharp point, refer to image below.



4. Depress the lever like below image and feed filament through the hole indicated by the arrows in image.



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5. While holding the spring on the lever continue to push filament through until you see melting filament exit through the nozzle.
6. Release lever and your printer is now loaded with filament.

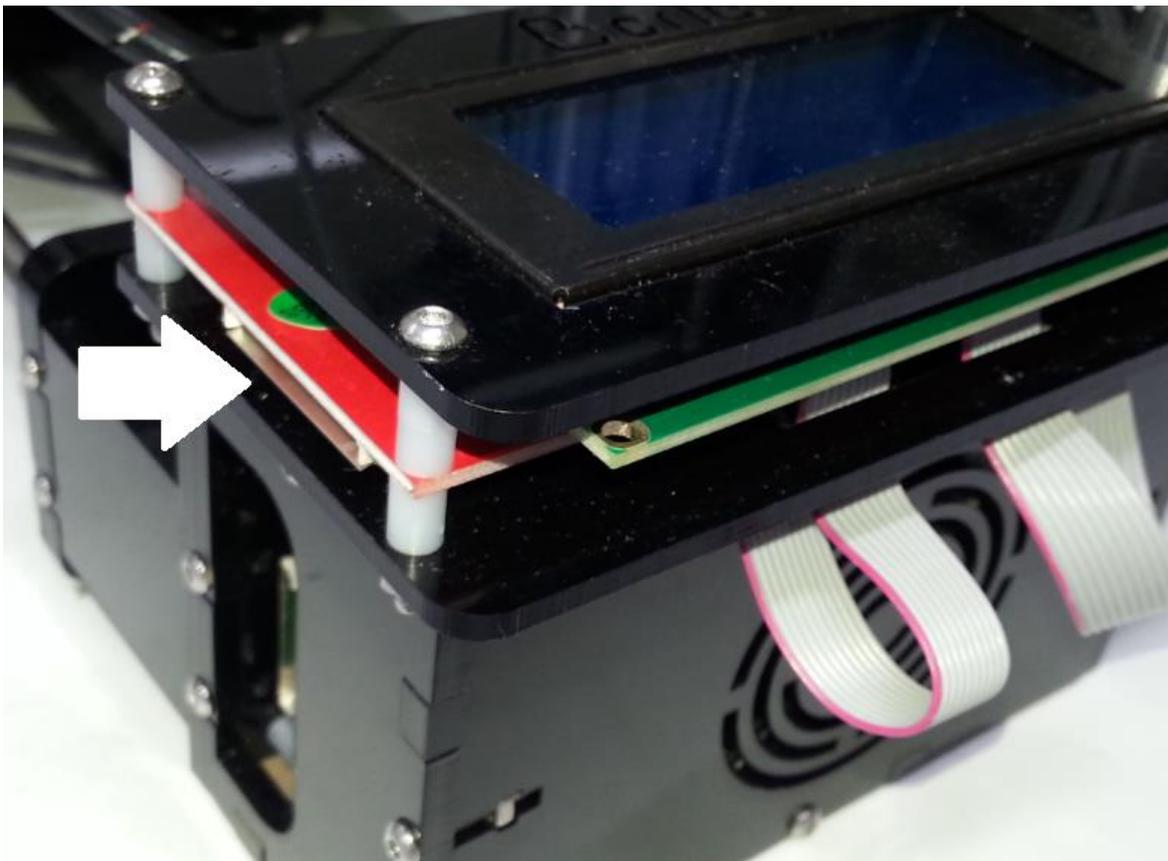
As a side note please when removing filament from printer always remember to have nozzle heated and depress the spring before gently pulling.

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Printing a file from the SD card

Here we will go through the process of printing a file from the SD card.

After slicing your model through Slic3r (refer Page 10) load your G-Code file to your SD card from computer and insert SD card into the SD card slot located on the printer refer to image below.



Once SD card is inserted scroll down to Print form SD card click this option and scroll and click on the file you wish to print.

Maintenance

1. Always remember to keep the printer and print bed and surrounding area free of dust and debris as this can cause the 3D printer to become blocked or print incorrectly
2. Use solvents such as (NA1066) isopropyl alcohol to keep the printer clean and in a ready cat like state.
3. The only time you should touch a hot nozzle is if it needs to be cleaned due to excess plastic build up, in this case use a thicker type rag to quickly but gently wipe the nozzle please always be under the supervision of an adult during this process .
4. If you find you are having trouble printing files, format the SD card and reslice the models and reload onto card and try again.