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Version 1.0
English
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3d-printer
Flashforge Dreamer NX
Notes, observations
and instructions

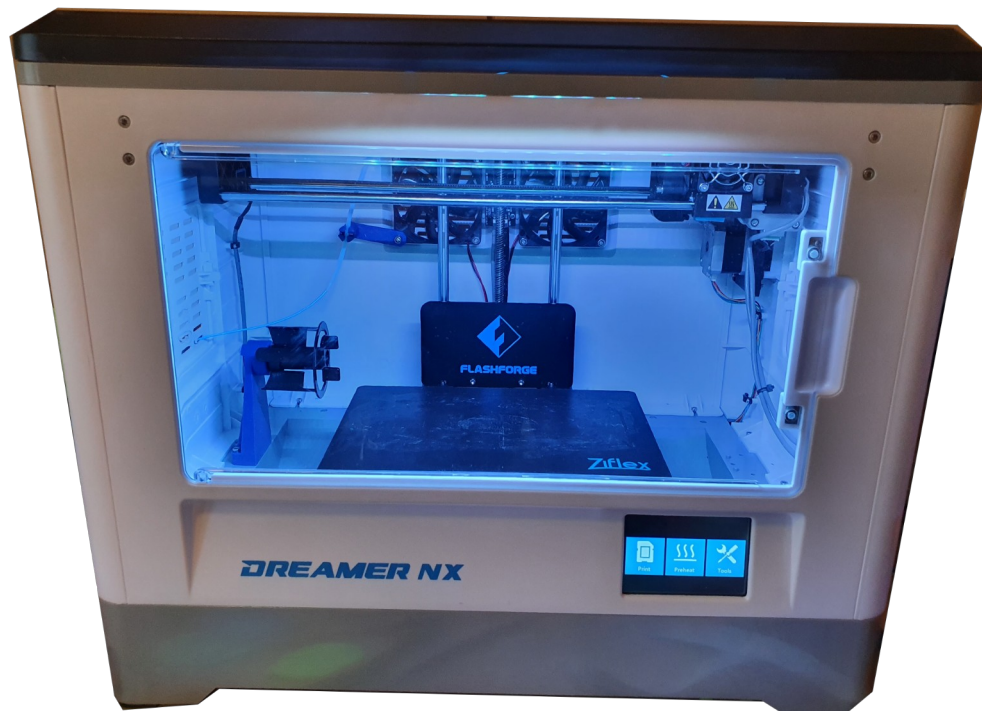


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1. Introduction

The first 3D printer was purchased with my brother in April 2020. Flashforge Dreamer NX was chosen. The main reasons why this printer got chosen were that it has a compact, closed printing space, easy for the beginner and of course the price.

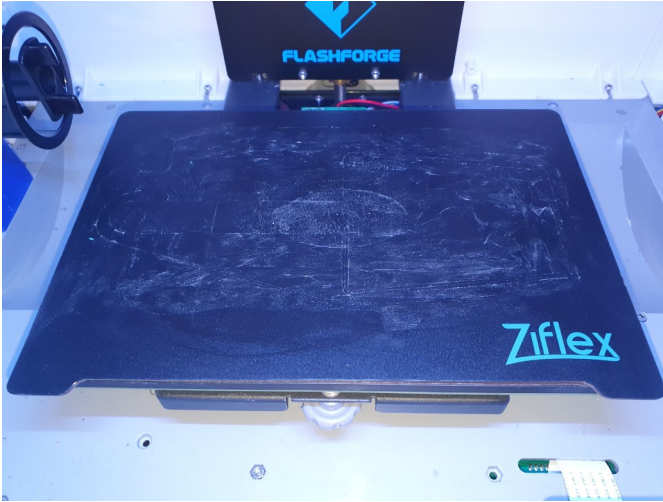
Since the beginning of using and learning the printer, there were quite a few situations where it is difficult to find suitable information and still is. Then I thought of making one document where everything I learned would be in one place. So I try to write everything here as accurately as possible.

2. Printer information

Extruder count:	1
Nozzle size:	0.4 mm (MK10)
Max nozzle temp.:	240C (official) 248C Max
Bed max temp.:	120C
Printing speed:	10-100 mm/s (Official)
Supported filament:	PLA, TPU (82A, 95A), ABS, ASA, PETG, PA(not all)
Filament holder:	Internal(500G, Higher holder 750G)
Print size:	230x150x140
Printer measures:	485x344x382(402 with lid)mm
Screen:	3.5 inch touch screen
Input current:	100-240 VAC, 47-63 Hz
Output current:	24 V, 13,3 A
Power:	320 W
Internal memory:	8 Gb
Data transfer:	Wi-Fi, Sd-card(standard), USB type B
G-code format:	Flashprint: GX/G failid Prusaslic3r: G failid
Software:	Flashprint, Prusaslic3r
Input files:	Flashprint: 3MF/STL/OBJ/FPP/BMP/PNG/JPG/JPEG Prusaslic3r: 3MF/STL/OBJ/AMF/XML/Prusa

3. Improvements and modifications

Flexible building platform with magnet. As Flashforge's original construction base was glued and there were immediate problems with removing the parts, it became clear that the base needed to be replaced. Ziflex High temp. a flexible magnetic board was purchased.

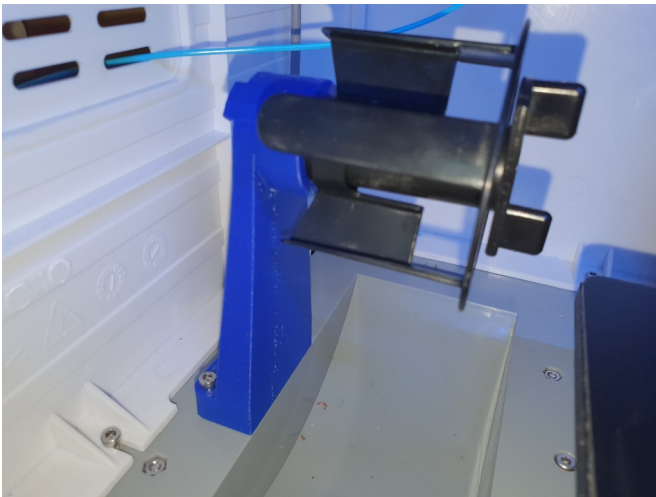


Recommendation:

If you are using TPU filament then use a glue stick and the first layer should not start too close to the table.

I got the ColorFabb nGen Flex stuck too hard without glue.

Higher filament post. I printed a new post found at Thingivers. In the original post, only a 500G roll could fit inside the machine. The taller can



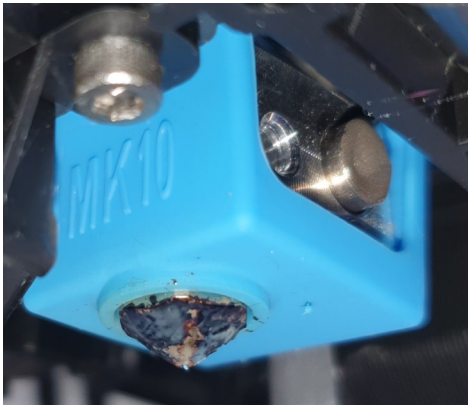
fit in a 750G machine. In order for the 1 Kg roll to fit, the post must be made too high because the width of the roll no longer fits into the opening in the bottom.

Silicone sock and new PTFE tube. Jams continued to clog during longer prints. Examining the problem, I found that the PTFE tube insulating the hot and cold sides of the printhead was too short in my opinion. There was

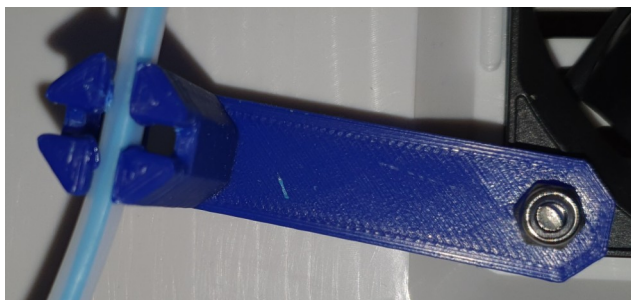


excessive heat dissipation. Although googling I found that the PTFE tube should be 33mm, but mine was 31.5mm. According to my measurements, even 33mm would have been short then I made the tube 35mm long. The new PTFE tube came from Capricorn XS. As the melting point and accuracy are higher on this tube, I thought it was safer and better to use.

As the old insulation broke around the heating block, I put on a silicone sock. I also replaced the nozzle with a Micro-swiss MK10 coated copper nozzle.



Longer filament tube post. The original tube holder was too short and began to pull the filament over the side and get stuck.



4. G-code commands

Many thanks for the Gcode material.

<https://github.com/Mrnt/OctoPrint-FlashForge/wiki/G-Code-Reference>

4.1 G-Code list

code	Description	Working	Notes
G0	Rapid traverse	Yes	
G1	Linear interpolation	Yes	
G4	Dwell/wait	Yes	
G28	Return to reference position	Yes	
G90	Absolute command	Yes	
G91	Increment command	Yes	
G92	Set Position	Yes	
G161	Move axis to minimum	Yes	
G162	Move axis to maximum	Yes	

4.2 M-code List

Code	Description	Working	Notes
M0	Program stop	Yes/No	Stops, however, cannot be continued
M6	Wait for extruder	Yes	
M7	Wait for Platform/Bed	Yes	
M17	Enable Stepper		
M18	Disable Stepper		
M21	Initialize SD Card		
M23	Print file stored on SD card	Yes	
M25	Pause/Unpause	Yes	

M26	Cancel printing from SD card		
M27	Get SD card print progress		
M28	Start upload file to SD card		
M29	Stop file write to SD card		
M104	Set extruder temp.		
M105	Get extruder, Bed temp.		
M106	Turn on cooling fan		
M107	Turn off cooling fan		
M108	Set active extruder		
M112	Emergency exit		
M114	Get current position		
M115	Get printer information		
M116	Micro switch trigger monitoring	?	
M117	Query buffer length		
M118	? (Used on print start)		
M119	Get machine Status		
M132	Load offset from EEPROM		
M140	Set hotbed temperature		
M146	Control enclosure Lights	Yes	
M148	Play a piece of Music	Yes	
M152	Set turbo fan speed?		Dremel only?
M400	Wait for movement		
M601	Hello Command	Yes	
M602	Disconnect command		
M610	Set Machine name	?	
M611	Set machine extruder	?	
M612	Set machine extruder distance	?	
M650	Set machine extruder distance	?	
M651	?		Used on Gcode, but don't know what does.

M907	Set Motor current		
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5. PrusaSlic3r configuration

Tutorial on how to get Prusaslic3r to work for Dreamer NX.

I got started with Prusaslic3r thanks to the [Uptimefab](#) Slic3r tutorial on Dreamer. I am currently using Prusaslic3r 2.2. As far as tested, it also works with Superslic3r.

The M codes for fan on and off used by the FF dreamer are M106 and M107 respectively. Slic3r outputs M126 and M127 for this, which are not recognized by the FF Dreamer. Then the script makes the fan on and off command correct.

What to do before starting Prusaslic3r:

- A. Download [prusaslicer 2.2](#) And [perl-5.24.0-for-Slic3rPE](#).
- B. Unpack **Prusaslic3r** where you want it.
- C. Unzip the **perl-5.24.0-for-Slic3rPE.Zip** to the „**prusaslic3r**” directory.
- D. Create a „**perl_script**” folder in the „**Prucaslic3r**” folder.
- E. Make postscript1.pl with a text editor (I used Notepad ++)
- F. Copy this script to the postscript.pl file.

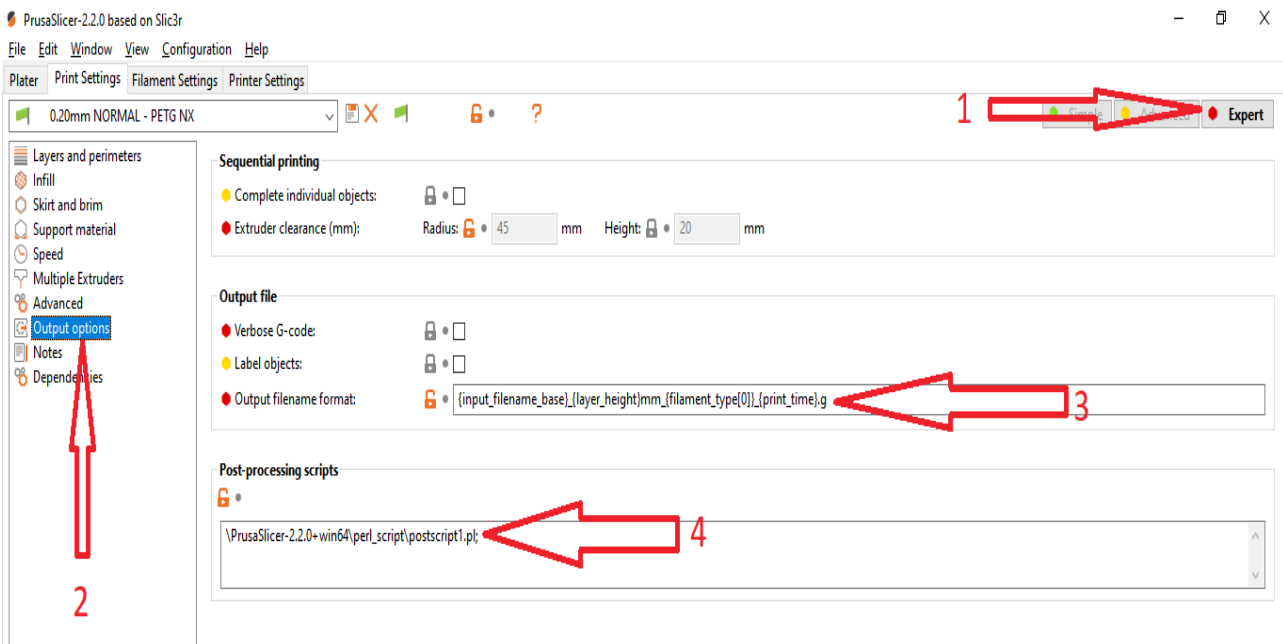
```
#!/usr/bin/perl -i
use strict;
use warnings;

#create a backup file, only required for windows
$^I = '.bak';

while (<>) {
    $_ =~ s/M126/M106/g; #replace all instances of M126 with M106
    $_ =~ s/M127/M107/g; #replace all instances of M127 with M107
    print;
}
```

Need to be done within the program:

- A. Turn on "expert mode" (1)
 - B. Go to the „Print Setting” tab
 - C. Go „Output options” (2) Page
 - D. Configure lines "output file format" (3) and "post-pricessing scrip" (4)
- output file format**= {input_filename_base}_{layer_height}mm_{filament_type[0]}_{print_time}.g
post-pricessing scrip= \PrusaSlicer-2.2.0+win64\perl_script\postscript1.pl;



E. Next, go to Printer „**Printer Settings**” tab

F. On „**Generale**” Page

Set the dimensions of the printer Bed on „**Size and cordinates**”> Bed shape> Set (Shape- Rectangular)(Size- X232/Y152)(Origin- X116/Y76)
Firmware> G-code flavor>Makerware(Makerbot)

G. On „**Custom G-code**” Page

Start G- code:

;***start gcode***

M118 X25.00 Y25.00 Z20.00 T0

M140 S[first_layer_bed_temperature] T0; Heat bed up to first layer temperature

M104 S[first_layer_temperature_0] T0; Set nozzle temperature to first layer temperature

M107

G90

G28

M132 X Y Z A B

G1 Z50.000 F420

G161 X Y F3300

M7 T0

M6 T0

M651

M907 X100 Y100 Z40 A100 B20

M108 T0

End G-code:
;end gcode
M104 S0 T0
M140 S0 T0
G162 Z F1800
G28 X Y
M652
M132 X Y Z A B
G91
M18

