Printables by JOSEF PRUSA

Temp Tower PLA, PETG, ABS/ASA for Prusa MINI+, MK3S+ and MMU2S

Kryštof

VIEW IN BROWSER

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Summary

Every filament and every printer is different. Find your optimal print settings with Temp Tower!

3.82 hrs	9 pcs	0.20 mm	0.40 mm	PLA PET ABS	30 g	Prusa MK3/S/S+

3D Printers > Test Models

Tags: mk3 bridge mini print test model nozzle mk3s tower mmu2s abs pla temp temperature petg prusai3mk3 stl overhang prusai3mk3s prusai3mk3smmu2s dial testprint gcode mk3smmu2s prusamini calibrationtest asa bridgetest temperaturetower 3mf to ready optimal

Download, load and print!

Every filament and printer is different. To get the best out of your printer, you need specific settings, which means a particular nozzle temperature. That is the time when Temperature Tower comes in handy.

Every level of this tower is printed with different nozzle temperatures. There are several tricky parts on each level, where you can see differences between temperatures, such as overhangs, stringing... By comparing levels, you can find your optimal printing temperature.

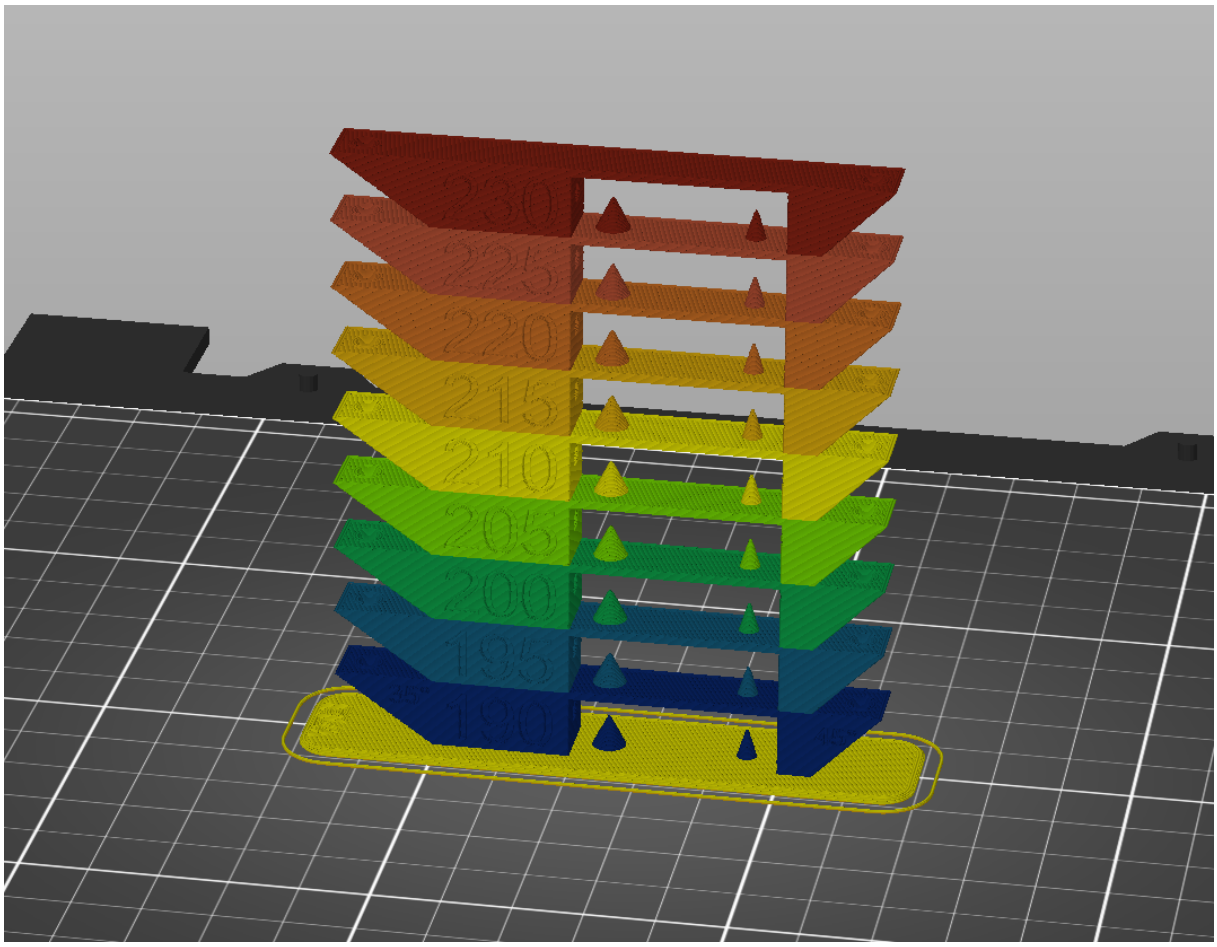
To make it work, you need modified G-codes. There are G-codes ready to be printed with **MK3S+**, **MK3S+MMU2S** and **MINI+**. It should also work on non-plus printers. I have also included **.stl** and **.3mf** files so that you can slice it on your own (more on that below).

For each printer, there is a model for **PLA**, **PETG**, and **ABS/ASA**. You can use them with other types of filament too. I have also included a **blank tower so that** you can add your values. Ranges for presliced materials:

PLA - 190 - 230°C

PETG - 220 - 260°C

ABS/ASA - 230 - 270°C



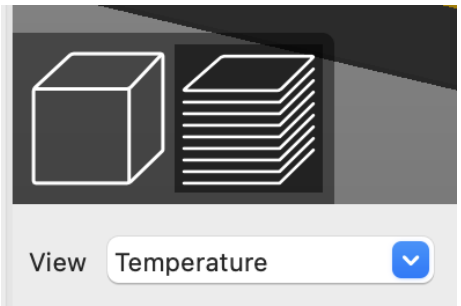
Slicing instruction

There are two ways to make your modified G-code file. One uses the .3mf file, the other classic stl. **There is no warranty that the custom sliced G-codes will work.**

The more straightforward way is to use a .3mf file. Just open it in PrusaSlicer, make some changes, and slice it. Custom commands are already included. When you open the file, you need to open it as a project, otherwise, the custom G-code will be lost. When you are changing printer type, you need to select Transfer changes.

If you want to slice it on your own without using a .3mf file, you will need to add some commands to a custom G-code setting in PrusaSlicer. After you place your STL file into the slicer, ensure you are in **Expert mode to** see all the settings. Then go to **Printer settings**, on the left, find **Custom G-code** settings and look for **Before Layer Change**. You will need to replace that text with one of the commands set, which you can find in the file **Custom G-code** (PDF, because there is a problem with copying data from a .txt file to PrusaSlicer), which you can download here in the section **Other Files**. Do not include the name of a filament (PLA, PETG..). You still need to change the filament type as you usually would. It affects temperature while printing the base.

To ensure you sliced it correctly, in the preview section in PrusaSlicer, there is a menu **View** in **the** bottom left corner. Just select **Temperature** and you should see Temp Tower like the picture above.



FAQ:

Why is it so big?!

As you might have noticed, the test model is about 30g and tooks about 4 hours to print. That is because of its height and complexity. Of course, the model could be smaller, but there would be fewer visible differences between each level. When it comes to scaling it down, you need to keep in mind that the temperature change depends on the Z position. So if you scale it down, you need to rewrite Z levels in the custom code. **However, I would suggest spending more time and material and having better and more visible results.**

Shouldn't the temperatures drop from the highest to the lowest rather than starting from the lowest temperature?

I'm no expert, but the custom code is written so that the base of the tower (before the first level) is printed with a typical temperature for that type of material. For example, as you can see from the picture above, the base of the PLA Temp Tower is printed at around 210°C, a somewhat average value for PLA. It would make sense if the base was printed with high temperatures rather than low because of the bed adhesion, but this isn't the case. (If you have some other arguments message me, we can have a chat, and you might convince me :D)

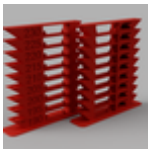
Updates:

14.5.2022

- Added print files for MK3S and MINI
- Added .3mf file
- Slightly optimized Custom G-code for individual slicing
- New description, more detailed process of unique slicing and FAQ from comments

If you have any questions, problems or suggestions, write them in the comments or message me. I will be happy if you leave some feedback. And as Jo would say: **Happy printing :D**

This remix is based on



All in One Temperature & Bridging Tower - PLA & PETG GCode included

by Tronnic

Model files

MINI.3MF 3 files

temp_tower_pla_mini.3mf

temp_tower_petg_mini.3mf

temp_tower_abs_asa_mini.3mf

MK3S.3MF 3 files

temp_tower_pla_mk3s.3mf

temp_tower_petg_mk3s.3mf

temp_tower_abs_asa_mk3s.3mf

MK3S MMU2S.3MF

3 files

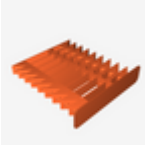
temp_tower_pla_mk3smmu2s.3mf

temp_tower_petg_mk3smmu2s.3mf

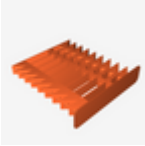
temp_tower_abs_asa_mk3smmu2s.3mf

STLs

4 files



temp_tower_pla.stl



temp_tower_petg.stl

temp_tower_abs.stl

temp_tower_blank.stl

Print files

MINI

3 files

temp_tower_02mm_pla_mini_3h34m.gcode

PLA | 0.40 mm | 0.20 mm | 3.57 hrs | 30 g | Prusa MINI / MINI+

temp_tower_02mm_petg_mini_3h47m.gcode

PET | 0.40 mm | 0.20 mm | 3.78 hrs | 31 g | Prusa MINI / MINI+

temp_tower_02mm_abs_asa_mini_3h35m.gcode

ABS | 0.40 mm | 0.20 mm | 3.59 hrs | 26 g | Prusa MINI / MINI+

MK3S

3 files

temp_tower_02mm_pla_mk3s_3h49m.gcode

PLA | 0.40 mm | 0.20 mm | 3.82 hrs | 30 g | Prusa MK3/S/S+

temp_tower_02mm_petg_mk3s_3h48m.gcode

PET 0.40 mm 0.20 mm 3.80 hrs 31 g Prusa MK3/S/S+

temp_tower_02mm_abs_asa_mk3s_4h2m.gcode

ABS 0.40 mm 0.20 mm 4.04 hrs 26 g Prusa MK3/S/S+

MK3S MMU2S 3 files

temp_tower_02mm_pla_mk3smmu2s_3h50m.gcode

PLA 0.40 mm 0.20 mm 3.83 hrs 30 g

Prusa MK3S/S+ & MMU2S

temp_tower_02mm_petg_mk3smmu2s_3h48m.gcode

PET 0.40 mm 0.20 mm 3.81 hrs 31 g

Prusa MK3S/S+ & MMU2S

temp_tower_02mm_abs_asa_mk3smmu2s_4h3m.gcode

ABS 0.40 mm 0.20 mm 4.04 hrs 26 g

Prusa MK3S/S+ & MMU2S

Other files

custom-g-code.pdf

Text file with custom command line sets.

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