



Parameteric Temperature Tower



link87

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Summary

A parametric temperature tower generator using OpenSCAD.

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Tags: [tower](#) [customizable](#) [temperature](#) [openscad](#) [scad](#)
[parameteric](#)

I really liked the number of features present in Tronnic's model but wanted something I could easily customize for different filaments and temperature ranges. This generator works quite fast, only taking about 2 minutes to generate a 190-230 tower.

The script will generate a G-CODE macro snippet that should be copied into the **After Layer Change** text box under the **Printer Settings→Custom G-Code** in PrusaSlicer. The G-CODE will automatically set the nozzle temperature based on the parameters you provide. It will only change the temperature after the first layer, allowing you to specify a first layer temperature in PrusaSlicer for best bed adhesion.

I recommend setting the bottom temperature to your lowest temperature to be able to quickly verify that the printer is able to extrude at this temperature on the first couple layers.

G-CODE for temp_tower_0.2_190_230 which uses a 0.2 layer height:

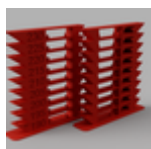
```
{if layer_num == 1} M104 S190 {endif} ; {if layer_num==55} M104
S195 {endif} ; {if layer_num==105} M104 S200 {endif} ; {if
layer_num==155} M104 S205 {endif} ; {if layer_num==205} M104 S210
{endif} ; {if layer_num==255} M104 S215 {endif} ; {if
layer_num==305} M104 S220 {endif} ; {if layer_num==355} M104 S225
{endif} ; {if layer_num==405} M104 S230 {endif} ;
```

G-code for temp_tower_0.2_220_270 which uses 0.2 layer height:

```
{if layer_num == 1} M104 S220 {endif} ; {if layer_num==55} M104
S225 {endif} ; {if layer_num==105} M104 S230 {endif} ; {if
layer_num==155} M104 S235 {endif} ; {if layer_num==205} M104 S240
{endif} ; {if layer_num==255} M104 S245 {endif} ; {if
layer_num==305} M104 S250 {endif} ; {if layer_num==355} M104 S255
{endif} ; {if layer_num==405} M104 S260 {endif} ; {if
layer_num==455} M104 S265 {endif} ; {if layer_num==505} M104 S270
{endif} ;
```

After making this generator I later found the parametric generator by Xavier Faraudo. I appreciate the work he did and did base the gcode generation off his work. His model takes a long time to render though, something like 15 minutes. But if you want a fully customizable model where you can specify the dimensions and everything, please take a look at his.

This remix is based on



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

by Tronnic

Parametric

temperature & bridging tower + G-Code
& generator

by Xavier Faraudo

temperature & bridging tower +

G-Code

generator

Model files



temp_tower_custom.scad

temp_tower_02_220_270.stl

temp_tower_02_190_230.stl

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