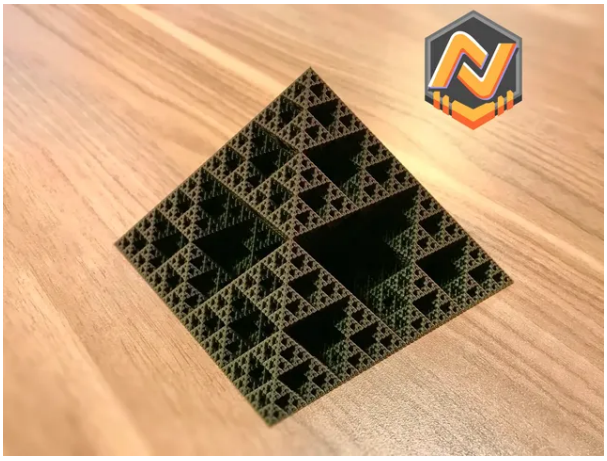
Printables by JOSEF PRUSA



Spiral Vase Mode Sierpiński Pyramid

Nat

VIEW IN BROWSER

updated 24. 10. 2024 | published 24. 10. 2024

Summary

It's a classic, reworked to be more awesome than ever!

109.03 hrs	3 pcs	0.05 mm 0.20 mm 0.10 mm	0.25 mm 0.40 mm	PLA	218 g	Prusa MK3/S/S+

Art & Design > Sculptures

Tags: design art geometric spiral geometry sculpture abstract vasemode math fractal beautiful artdeco sierpinski sierpinskitriangle modernart geometricart artisticgeometry desktopsculpture artdecor

Please consider supporting my hobby. You will make my day!

Interested in selling prints of this model?

Join my Exclusive Print Seller Tier on Patreon for the rights to **list and sell prints of this model**. Please note that if you are not a member of this tier, printing is intended for personal use only. I appreciate your support!

About this model

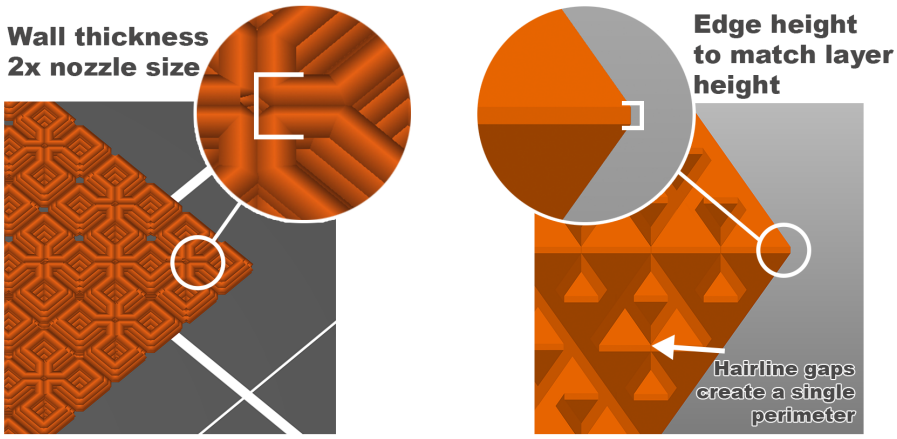
This is the pyramid version of my Octahedroflake, same thing, just cut in half.

Features

- The pyramid is designed to be printed with a **single perimeter**, allowing you to print the entire model with one continuous extrusion if sliced properly.
- With no supports or infill required, this model is easy to print.
- The flat square bottom layer ensures a stable and even print surface for hassle-free printing.
- Made entirely with CadQuery

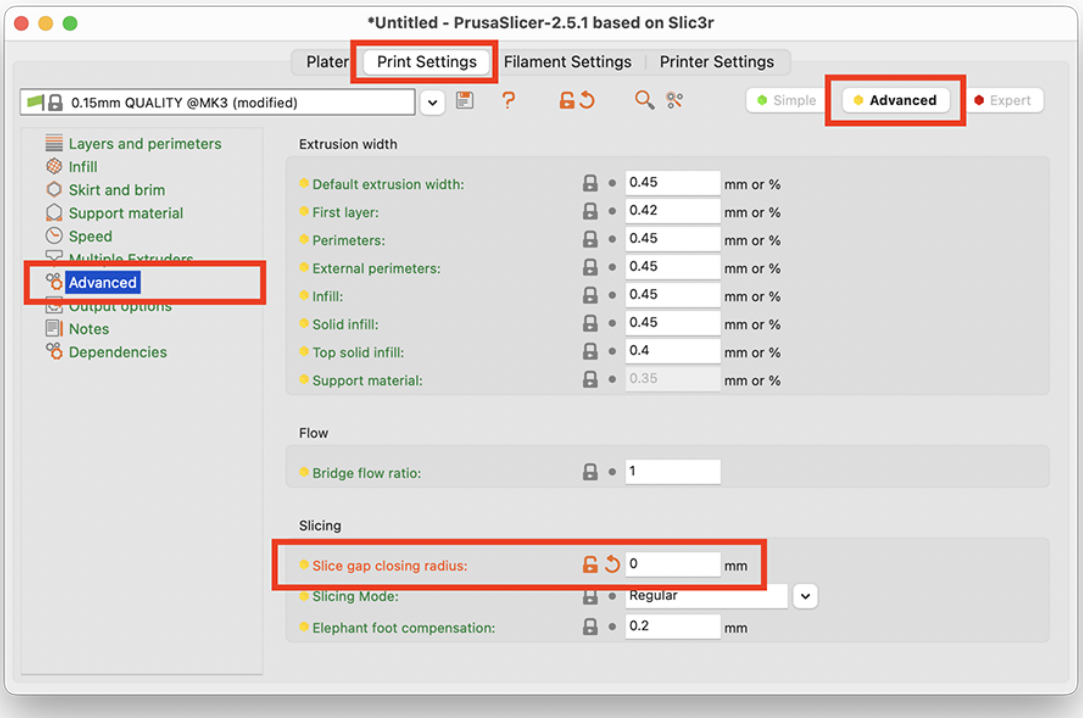
Important Note (don't resize)

After extensive testing, I've optimized the dimensions, gaps, and thin walls for the best print quality. I recommend printing the model as-is to ensure optimal results without resizing it. I generated a lot of different sizes and configurations. Feel free to message me if you need custom dimensions, and I can generate them for you.

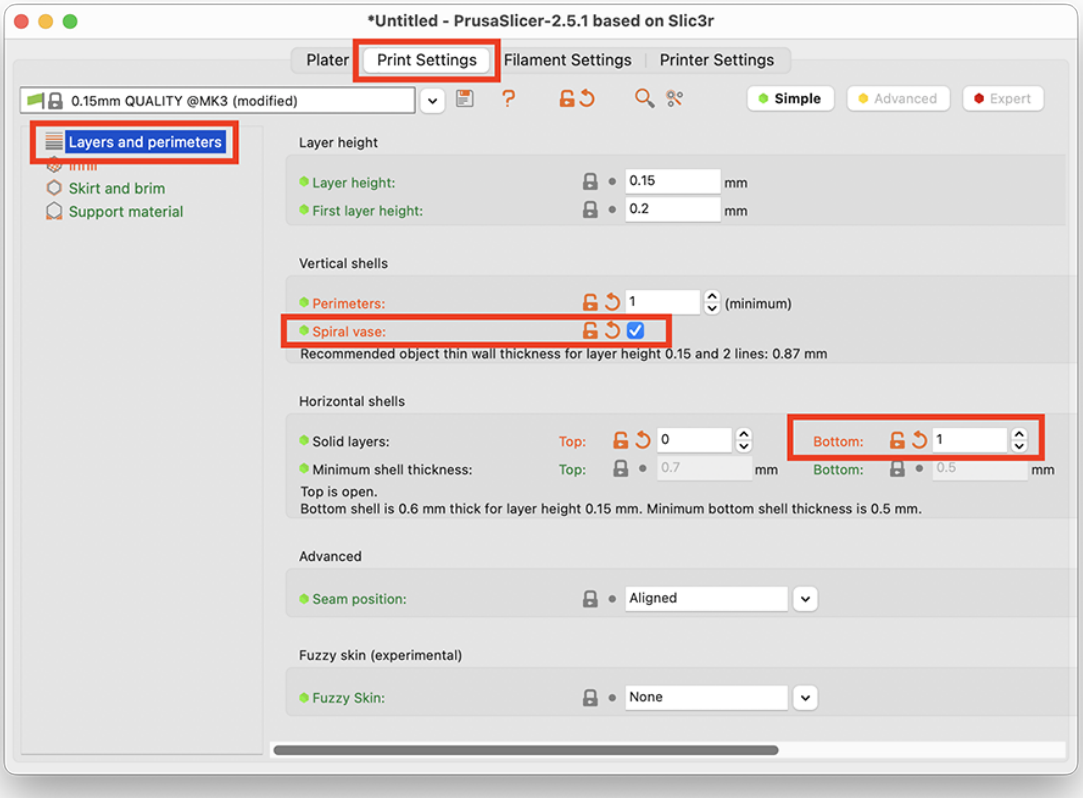


Slicing Instructions:

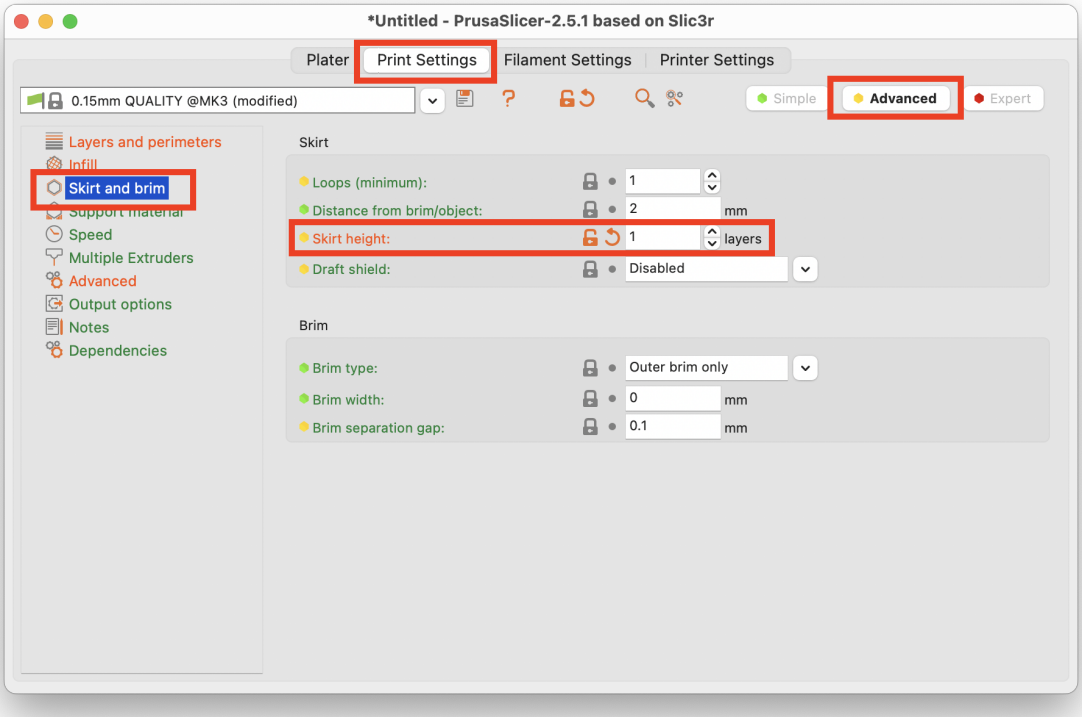
There are hairline gaps in strategic places to make it a continuous perimeter. Normal slicing settings will close these gaps. You'll have to explain to the slicer that you don't want it to do that. (you'll have to enable at least “advanced” mode in PrusaSlicer to do it). Set the closing radius to zero.



Enable the spiral vase mode and give it just one bottom layer.



Optional: give it a short skirt so it goes right into the spiral after the first layer.



The secret number is 18.

This remix is based on

The Octahedroflake: A higher-dimensional analog of the Sierpinski Triangle

by Nat

Model files

0.4mm nozzle - 0.2mm layer height 7 files

sierpinski-pyramid-5_atlas_50mm_for_02mm_layer_heig... .stl

sierpinski-pyramid-4_hazel_25mm_for_02mm_layer_heig... .stl

sierpinski-pyramid-6_juno_90mm_for_02mm_layer_heigh... .stl

sierpinski-pyramid-6_ziggy_100mm_for_02mm_layer_hei... .stl

sierpinski-pyramid-6_ronald_200mm_for_02mm_layer_he... .stl

This will fit the max size of your MK3/MK4. It's huge! Order 6 Fractal.

sierpinski-pyramid-7_rocky_254mm_x_180mm_for_02mm_l... .stl

sierpinski-pyramid-7-rocky-2_360mm-x-254mm_for_02mm... .stl

0.6mm nozzle - 0.2mm layer height

2 files

sierpinski-pyramid-4_nova_28mm_for_02mm_layer_heigh... .stl

sierpinski-pyramid-5_jasper_54mm_for_02mm_layer_hei... .stl

Old Version (v2) 2 files

sierpinski_pyramid_tester-old-version.stl

sierpinski_pyramid-old-version.3mf

0.6mm nozzle - 0.15mm layer height 1 file

sierpinski-pyramid-6_finn_109mm_for_015mm_layer_hei... .stl

0.8mm nozzle - 0.4mm layer height 1 file

sierpinski-pyramid-5_jeff_72mm_for_04mm_layer_heigh... .stl

0.6mm nozzle - 0.3mm layer height 1 file

sierpinski-pyramid-6-sophie_174mm_for_03mm_layer_he... .stl

Print files

Old Version (g-code) 3 files

sierpinski_v2_025n_005mm_pla_mk3s_2d20h54m.gcode

PLA 0.25 mm 0.05 mm 68.89 hrs 49 g Prusa MK3/S/S+

If you're patient, this one is awesome

sierpinski_v2pla_mini_14h9m.gcode

PLA 0.40 mm 0.20 mm 14.14 hrs 81 g Prusa MINI / MINI+

sierpinski_v2_040n_pla_mk3s_1d2h0m.gcode

PLA 0.40 mm 0.10 mm 26.00 hrs 88 g Prusa MK3/S/S+

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