



Zephyr's Kiss (Fractal vase - Julia set)



voidbubble

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Summary

A vase based on the Julia set fractal, printable in vase mode.

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Swirls settle gently into a seductive silky form, giving rise to a spectacle of morphing fractals.

Designed as a stack of quadratic Julia sets, where each set is similar to the sets immediately above and below it. The sets are defined as the set of all complex points z which do not diverge to infinity under the transformation:

$$z \rightarrow z^2 + c,$$

where c is some complex number. If we sample c at regular intervals along a smooth path inside the Mandelbrot set, we obtain a series of connected Julia sets locally similar enough to form a continuous surface when stacked. By choosing an appropriate path for c , the Julia sets consist of a closed curve without self-intersections at each stage, producing a surface with printable overhangs.

Inspired by:

Julia Vase - Collections - virtox - Thingiverse

Instructions

Prints in vase mode with a line width of 0.45 mm and a layer height of 0.15 mm.

Model files



zephyrs-kiss.stl

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