Sieve / sifter for compost, vermicompost, or anything else

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VIEW IN BROWSER

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Summary

A printable concept sieve. 150x200x40mm, uses configurable infill pattern to create the actual holes themselves.

Hobby & Makers > Tools

Tags: mask filter mesh harvester compost sieve vermicomposting sifter

This design does not actually use a 3D model, but uses the base features available in PrusaSlicer. It's a Shape-Box scaled to 150x200x40mm, and then a modifier box that is larger, but shifted up so it doesn't cover the bottom 1.5mm of the box. This is all shared in the attached PrusaSlicer 3mf project file.

Configure your print to something like 3 perimeters and the desired infill to create the mesh size you want. Make sure to set 0 top and bottom layers. Then configure the modifier box to set 0% infill, and your mesh will be 1.5mm thick.

After some experimentation I've found that 28% rectilinear infill makes a square hole mesh where the holes are just over 2.6mm x 2.6mm. At 35% the holes are just over 2mm x 2mm. It seems 28% makes a great mesh for

harvesting vermicompost. The final product is shown in an uploaded photo.

As a nifty side effect, the sieve can be scaled up or down, and the mesh size will still be determined by the infill percentage. The wall thickness and mesh size are determined by slicer parameters.

You may experience some curling with a large print like this, but functionality won't be affected unless it's really bad.

Model files

printed-mesh-filter.3mf

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