



Multidirectional Overhang Test Model

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[VIEW IN BROWSER](#)

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Summary

Test the print quality of overhangs in all directions

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Rational

I wanted to test 60 degree overhangs in all directions to calibrate the fan speed and print speed for PETG. I wanted a model that would print quick to avoid wasting hours testing multiple settings. So I created this simple “star” model that allows to test a specific overhang angle in all directions.

Note that I printed the test models with 5 perimeters to test the curling-up of overhang angles for PETG. But you can print with less perimeters for quicker print time.

Models

The test models have 4, 6, 7, or 8 overhangs (called ‘branches’ in the filename) . This way, you can see the incidence of the cooling on the overhangs for all directions. Note that usually cooling will be very good at the front and bad at the back. If you want to test all directions, use the 8-

branch model; if you just want to test the worst case scenario (i.e.: the back overhang), use the 4-branch model.

Each models has a selection of 4 different angles: 45, 50, 60, 70 degree

→ Pick the overhang angle you want to test, and then the number of overhangs (aka 'branches') in the model.

Print Settings

(see slicer settings in photos)

- Set **Solid top layer** to 0
- Uncheck **Ensure vertical shell thickness**
- Set **Infill density** to 0%

Model files

 **45 degree overhang** 4 files

 **multidirectional-overhang-test_4-branches-45deg.stl**

 **multidirectional-overhang-test_6-branches-45deg.stl**

 **multidirectional-overhang-test_7-branches-45deg.stl**

 **multidirectional-overhang-test_8-branches-45deg.stl**



50 degree overhang

4 files



multidirectional-overhang-test_4-branches-50deg.stl



multidirectional-overhang-test_6-branches-50deg.stl



multidirectional-overhang-test_7-branches-50deg.stl



multidirectional-overhang-test_8-branches-50deg.stl



60 degree overhang

4 files



multidirectional-overhang-test_4-branches-60deg.stl



multidirectional-overhang-test_6-branches-60deg.stl



multidirectional-overhang-test_7-branches-60deg.stl



multidirectional-overhang-test_8-branches-60deg.stl



70 degree overhang

4 files



multidirectional-overhang-test_4-branches-70deg.stl



multidirectional-overhang-test_6-branches-70deg.stl



multidirectional-overhang-test_7-branches-70deg.stl



multidirectional-overhang-test_8-branches-70deg.stl



multidirectional-overhang-test_70deg.3mf



multidirectional-overhang-test_45deg.3mf



multidirectional-overhang-test_50deg.3mf



multidirectional-overhang-test_60deg.3mf

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