



HIGH GARDENS - Stackable Plant Vases



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Summary

It is a collection of exotic vases that stack up. It is easy to water while saving on space. Lots of customization

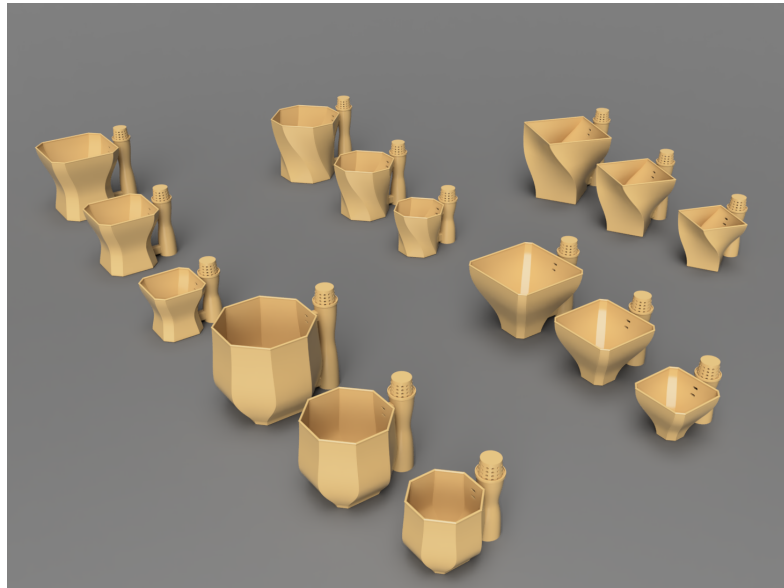
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High Gardens purpose is to grow more plants on your living (empty) space. A garden tower balance itself with the vases spread around to distribute the weight. Designed for plants that enjoy a define wet and dry cycle. Also easy to water, the excess water of one plant cascade down to the next and keeps dripping plates to a minimum. The system has been printed and tested and the tower remains strait and firm thanks to the conic interlock.

To get started first you pick a style. There are lots of options. Pick between 5 forms and 3 different sizes. Each model is named after a famous flower. You can choose

the Violet, the Tulip, Daisy, Orchid or the Camelia. All of them work with each other.



Second, when picking a plate, choose one that will fill up that blank space at home. Pick one that wraps around that living room corner or one that follows the

shape of the table. Also you can see a couple extensions and the water reservoir that makes life easier

There are many possible combination and maybe you end up with something like this



Or like this,



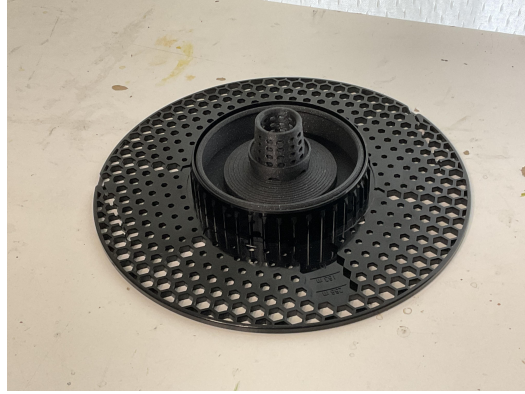
maybe that.



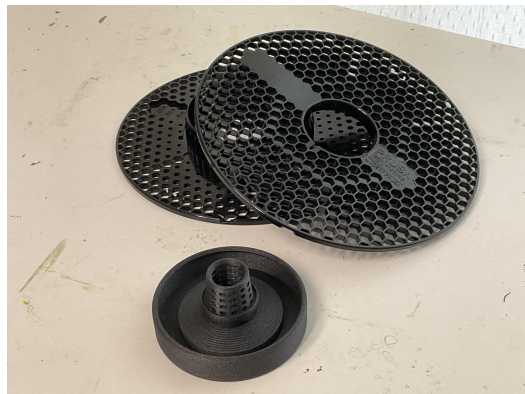
Upgrades.

April 10 - Wall support added to the family.





April 22 - Create a Prusa Mount plate. It fits your old spools to be reuse as base support for a tall tower.





Reality Check

Here are some tips to have a successful system:

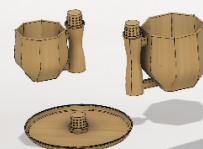
1. Use a Big plate for a big tower.
2. Use high drainage soil.

Customization Options

Many ways to customize your print

Easy

Pick your favorite models and go ...

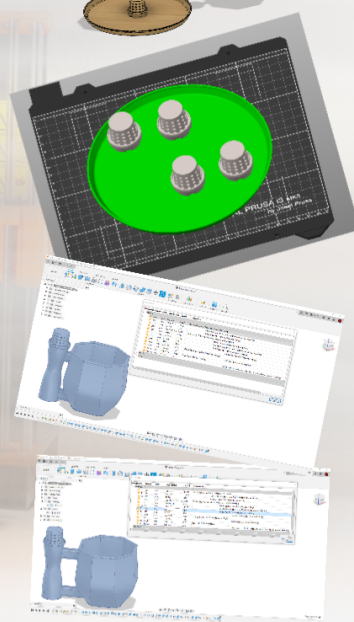


In Prusa Slicer
Add tower to a plate
Or scale up /down

Jump in to Fusion360
and change the
basic shape or size

Change advance
parameter and create
a total different form.

Harder

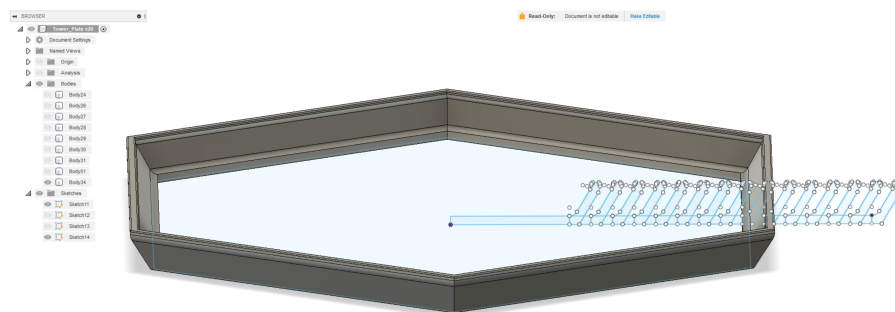


Parametric Options

Parameters					
Parameter	Name	Unit	Expression	Value	Comments
▼ Favor...					
★	Size	mm	80 mm	90.00	Vase top Diameter (Basic setting) Use 80 or more.
★	d16	mm	-Size * 0.14	-12.60	Bottom Section, offset from Top Diameter (Advance setting)
★	d17	deg	45 deg	45.0	Bottom Section, Rotation (Advance setting)
★	d81	mm	Size * 0.45 + ...	51.30	Water Colum Distance from vase center (Medium setting)
★	d12	mm	height / 14	4.821	Middle Section Elevation (Advance setting)
★	d14	mm	-Size * 0.11	-9.90	Middle Section, offset from Top Diameter (Advance setting)
★	d15	deg	45 deg	45.0	Middle Section, Rotation (Advance setting)
★	d18	deg	45 deg	45.0	Top Section Rotation (Advance setting)
★	d104	mm	Size * 0.21	18.90	Main Body edge modifier (Medium settings)
★	wall	mm	1.35 mm	1.35	Wall Thikckness (Advance setting)
★	height	mm	Size * 0.75	67.50	Vase Hight (Medium setting)
★	tolera...	mm	0.15 mm	0.15	Printer perfect clrance needed between printed parts (Advance setting)
> User...					
> Mod...					

All vases on this project were generated with the same base file but different parameters. Please, change it in very small increments. (more parameter are hidden too)

Also, plates can be any shape you want with Fusion file provided named 'Plates.f3d'



Printing Settings

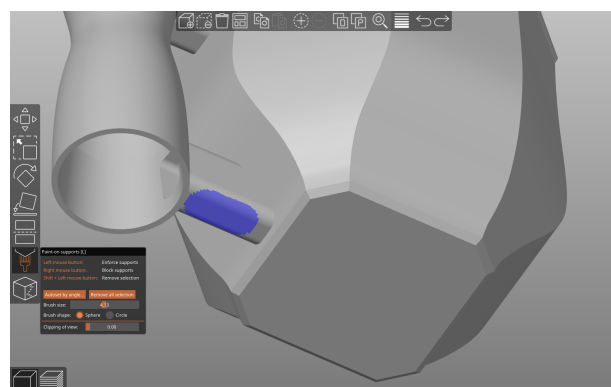
Works with all filament.

Print at 0.2mm layer for Vases and 0.3mm layer for plates (use variable layer height and save printing time)

15% Infill. there is so little!

Paint Support as Shown >

Each Vase takes between 4 to 10 hours



Prints are Prusa ASA or PLA Galaxy black. Small, Medium and Large Tulip Vases showing.

Cheers.

Updates

April 12 - Thicker plates (v1); thicker custom plates

April 22- Wall mounted is reservoir compatible, slotted holes for easy levelling.

We need more plants !

Plants decrease allergies, control humidity, purify the air, provide basic medicine, make you relax , they help with sleep, relief stress, they also promote healing, mental and emotional Health. Wow!

Model files

 Vases		15 files
	tulip_large.stl	
	tulip_medium.stl	
	tulip_small.stl	
	orchid_large.stl	



orchid_medium.stl



orchid_small.stl



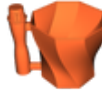
camelia_large.stl



camelia_medium.stl



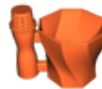
camelia_small.stl



daisy_large.stl



daisy_medium.stl



daisy_small.stl



violet_large.stl



violet_medium.stl



violet_small.stl



Plates

13 files



circle_plate_1_v1.stl



clover_plate_1_v1.stl



clover_plate_3v1.stl



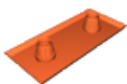
curved_plate_1_v1.stl



curved_plate_2_v1.stl



rectangle_plate_1_v1.stl



rectangle_plate_2_v1.stl



u_shape_2a_v1.stl



u_shape_2b_v1.stl



tearshape_plate_1_v1.stl



tearshape_plate_2v1.stl



corner_plate_1_v1.stl



corner_plate_2_v1.stl



Reservoir, Extension , Wall Mount And Prusa Mount

7 files



prusa-mount.stl



reservoir.stl



towerextension_1.stl



towerextension_2.stl



wall_mounted1v1.stl



wall_mounted2v1.stl



wall_mounted_suported_v1.3mf



Custom Options

20 files



custom_tower-plate-connector_v1.stl



custom_rectangle_plate_v1.stl



custom_u_shape_plate-v1.stl



custom_curved_plate_v1.stl



custom_circle_plate_v1.stl



custom_tearshape_plate_v1.stl



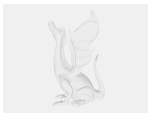
custom_clover_plate_v1.stl



custom_corner_plate_v1.stl



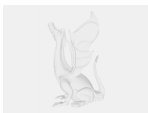
daisy.f3d



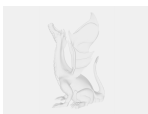
orchid.f3d



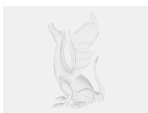
violet.f3d



camelia.f3d



tulip.f3d



plates.f3d



tulip.step



plates.step



violet.step



daisy.step



camelia.step



orchid.step



Older_versions

29 files



wall_mounted2.stl



wall_mounted1.stl



wall_mounted_supported.3mf



custom_tower-plate-connector.stl



custom_tearshape_plate.stl



custom_curved_plate.stl



custom_rectangle_plate.stl



custom_corner_plate.stl



custom_clover_plate.stl



custom_circle_plate.stl



custom_u_shape_plate.stl



circle_plate_1.stl



clover_plate_1.stl



clover_plate_3.stl



tearshape_plate_1.stl



tearshape_plate_2.stl



u_shape_2a.stl



u_shape_2b.stl



corner_plate_2.stl



corner_plate_1.stl



rectangle_plate_1.stl



rectangle_plate_2.stl



curved_plate_1.stl



curved_plate_2.stl



reservoir.stl



towerextension_2.stl



towerextension_1.stl



wall_mounted1.stl



wall_mounted2.stl

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