



Small Self-Watering Seed Starter



Quint

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Summary

A simple self-watering seed starter design with a small footprint. No excuses to get started with gardening

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Tags: [herbs](#) [plantpot](#) [plants](#) [pot](#) [seedstarter](#)
[selfwatering](#) [sprouting](#) [vegetables](#)

Updates

- 01-03-2023: Uploaded a new redesign.
- 06-12-2021: Fixed mesh issue with Basin_3x1, updated Basin_3x1.stl.
- 20-07-2021: Fixed the sizes of BasinCover_3x3, 3x1 and 1x3, small fix parametric parameter.
- 06-07-2021: Added extra drainage holes to the pots, lowered and increased length fill extension.
- 27-04-2021: Added a .blend file to adjust the pots to any size, small design tweaks in .blend file.
- 24-04-2021: Fixed BasinCover_3x3 floating from the surface, updated .3mf file & BasinCover_3x3.stl.
- 17-04-2021: Added 1x3 & 3x1 models, renamed old models to 3x3, updated .3mf file with new models.

New Design

I redesigned some features and improved the parts' print time and rigidity. Check it out with the link below:

<https://www.printables.com/model/122772-parametric-seed-starter>

Related Designs

If you want more prints to improve your gardening skills, check out the following design for helping your plants vertically in tight spaces and making compost using worms. <https://www.printables.com/model/499011-flexigrowth-hooks>

<https://www.printables.com/model/140786-parametric-vermicomposter>

Parts

The seed starter consists of 4 different parts (one of which is optional).

The Basin & Basin Cap

It holds all the seeding pots and serves as a reservoir. Through the small extension, you can quickly fill the basin. It can contain enough water only to water the seeds a single time. The small extension can also be capped to prevent water from evaporating.

I recommend a minimum of 3 perimeters of wall thickness for the basin to ensure everything is watertight.

The Seeding Pots

The basin can hold up to 9 seeding pots at a time. The pots have a small hole in the bottom to access the water in the basin. The walls are thin enough to make them flexible when the seedlings need transplanting.

The Basin Cover (Optional)

If you like enclosing the basin and making a small greenhouse, you can print the basin cover. It is held in place by a couple of pegs in the basin, so the cover can easily be removed.

I recommend printing it with a transparent filament so the seedlings can enjoy the extra light and heat.

Parametric Design (Blender Only)

In the files, you can find a .blend file that you can use to adjust the dimensions of all parts.

The options currently available are located on the pot object. These let you change the width, x-amount and y-amount for the pots, and all other parts adjust accordingly. Depending on your pc, it can be a bit slow to process.



Printing Difficulty: I

I: Novice printing knowledge

- Basic understanding of 3D printing principles and processes.
- Familiarity with operating a 3D printer.
- Able to follow step-by-step instructions for printing simple designs.
- Limited experience troubleshooting common printing issues.

II: Intermediate understanding

- Proficient in 3D printing principles and processes.
- Comfortable with various 3D printer settings and parameters.
- Capable of handling more complex designs and making necessary adjustments.
- Able to troubleshoot common printing issues and optimize print quality.

III: Experienced

- Extensive knowledge and expertise in 3D printing.
- Proficient in advanced printing techniques, such as multi-material or multi-colour printing.
- Skilled in fine-tuning printer settings for optimal results.
- Capable of handling complex and intricate designs.
- Experienced in troubleshooting and resolving various printing challenges.

Filaments

For my print, I used the following filaments.

- PLA Prusa Galaxy Black for the basin.
- PETG Prusa Mango Yellow for the pots.
- PETG Prusa Clear for the basin cap and cover.

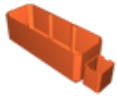
Model files

 3x3 Basin		4 files
	basin_3x3.stl	
	basincap_01.stl	
	pot_01.stl	
	basincover_3x3.stl	



1x3 Basin

4 files



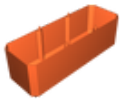
basin_1x3.stl



basincap_01.stl



pot_01.stl



basincover_1x3.stl



3x1 Basin

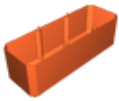
4 files



basin_3x1.stl



basincap_01.stl



basincover_3x1.stl



pot_01.stl



self-watering-seed-starter.3mf



parametric-self-watering-seed-starter.blend

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