



## Customizable plant watering bulb



**Dan the 3D Printing Dad**

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updated 3. 8. 2023 | published 3. 8. 2023

### Summary

An easy-to-print watering bulb that you can customize to fit your needs. Automatically water your potted houseplants!

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[selfwatering](#) [waterbottle](#) [watering](#) [potted](#)

I downloaded a 3D-printable plant waterer that I can no longer find. The angled shape made it very easy to print in vase mode and to make it water-tight. Given its utility and the fact I think others may find it useful, I created my own version in FreeCAD that you can either print using the existing model or customize using the included FreeCAD project file.

### Maximizing your chance at a watertight print

I have found that you can really increase your odds at a print that holds water by taking the following steps.

1. Set your layer height to 0.15mm
2. Either turn on vase mode, or set your perimeters to 2 perimeters, no infill, no top layers

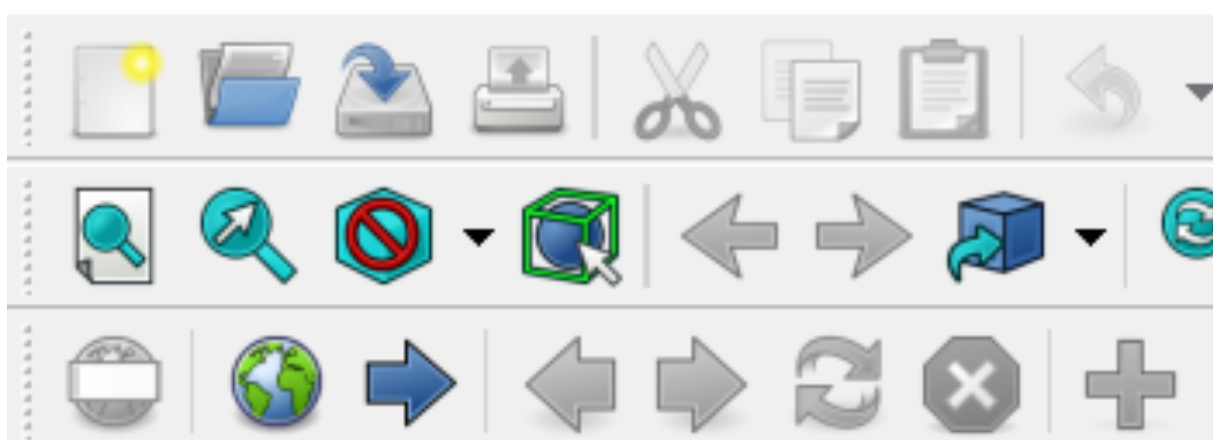
3. Increase your extrusion width to 0.6mm (yes, you can do this with a 0.4mm nozzle successfully)
4. Print at a slower speed - “quality” settings versus “speed” settings

## **Customizing your waterer**

If you wish to customize the bulb, you will need to install FreeCAD. Once you have done so, open the **Plant watering bulb.FCSTD** project.

To adjust the parameters, you first must open the spreadsheet by double-clicking on its icon in the Combo View:

File Edit View Tools Macro Windows



Combo View


Model


Tasks

Labels & Attributes


Description


Application

▼  **Plant watering bulb**

 Spreadsheet **Double-click!**

▼  Body


>  Origin


▼  WateringBulb

 Sketch

 Sketch001

 Sketch002

 Sketch003

 Sketch004



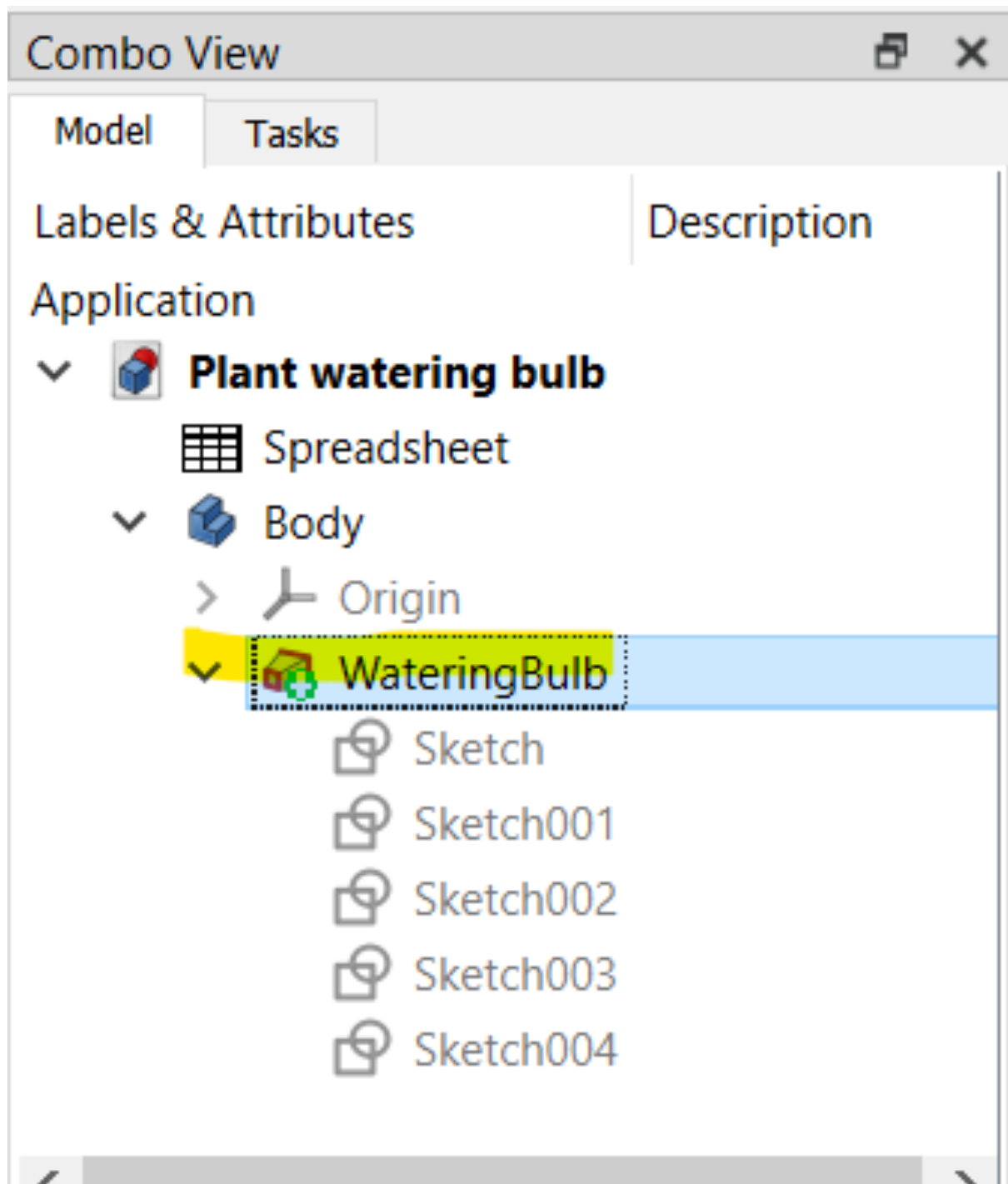
There are only three parameters:

	A	B
1	Base size	40.00
2	Nozzle length	100.00
3	Nozzle diameter	10.00
4		

- The base size determines how large the base of the water bottle is and, consequently, how large the water vessel ultimately is.
- The nozzle length is how long the thin nozzle, that is to be plunged into the dirt, should be.
- The nozzle diameter is how large the nozzle opening is at its tip.


By adjusting these parameters you can easily make a waterer that is smaller or larger, and adjust the length of the nozzle depending on how deep you wish the water to go.


Once you are satisfied with the size of your model, click on the **“WateringBulb”** in the Combo View:





Then, select **File-Export:**


File   Edit   View   Tools   Macro   W


 New   Ctrl+N


 Open...   Ctrl+O


 Close   Ctrl+F4


 Close All


 Save   Ctrl+S

 Save As...


 Save a Copy...


 Save All


 Revert

 Import...   Ctrl+I

 Export...   Ctrl+E

 Merge project...

 Project information...

 Print...   Ctrl+P

You can then save the bulb as an STL or AMF file to import into PrusaSlicer or another slicer of your choice.

## Share your print!

Get those sweet, sweet Prusameter points! Share your print and how it's helping your houseplant!

## Model files



**plant-watering-bulb-dan-the-3d-printing-dad.stl**



**plant-watering-bulb.fcstd**

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