



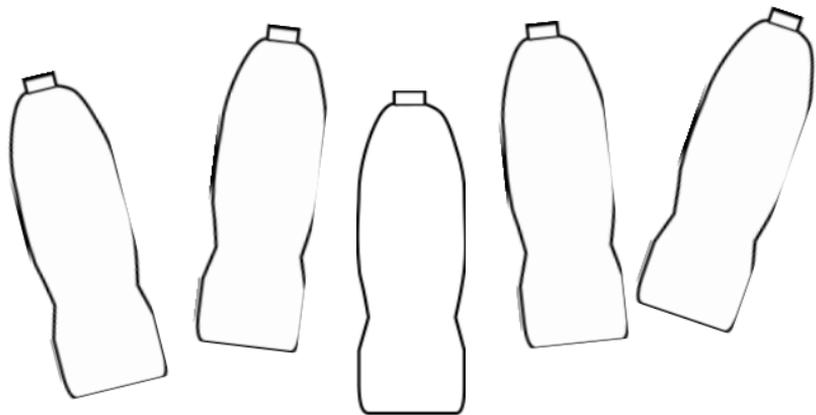
# Bottle Farms

## Cleaner & Greener

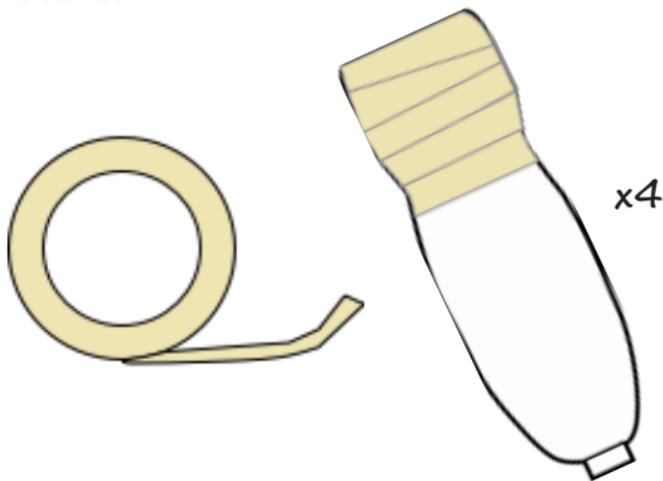
Bottle Farms help make the city **cleaner** by reusing found recyclables and **greener** by providing easy, innovative spaces to grow your gardens. Hydroponic systems such as Window Farms also help **conserve water!**

## Part One: Prepare the Bottles

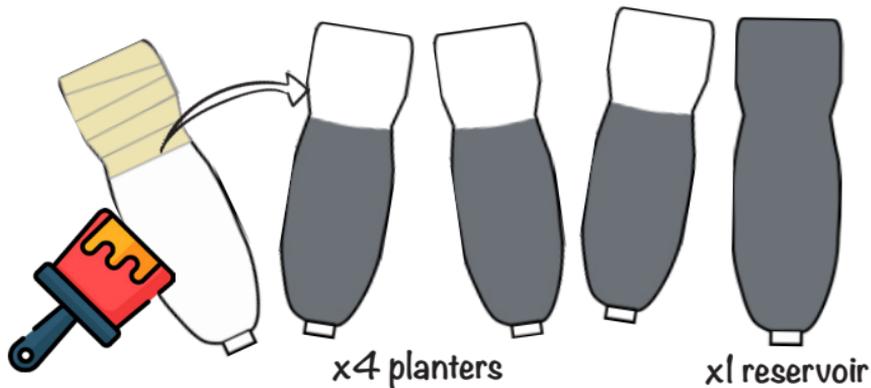
1. Collect 5 clean, empty, plastic water bottles of roughly the same size.
2. Remove the label and the glue and paper residue.



3. Using masking tape, cover or "mask" the bottom 1/3 of four of the bottles.



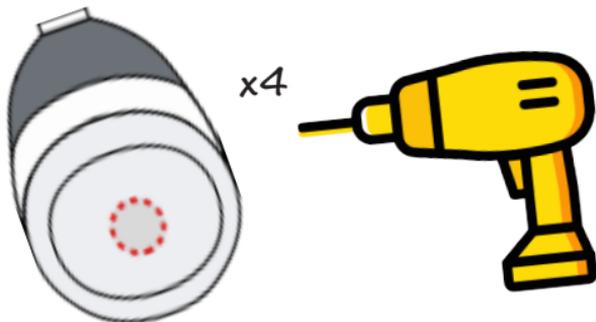
4. Paint all bottles with several layers of paint so sunlight cannot get in.
5. Remove the masking tape from the bottles. Four bottles should be partially unpainted, and the fifth bottle should be fully painted.



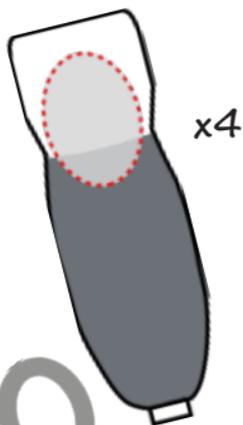
## Part Two: Prepare the Planters

The four bottles that were partially painted are your planters.

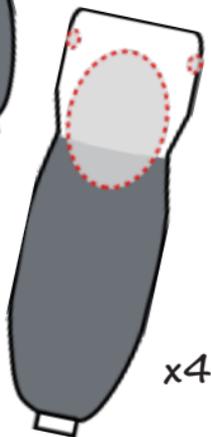
1. Drill or cut a hole in the base of each planter bottle about the same size as the mouth of the bottle (~3cm).



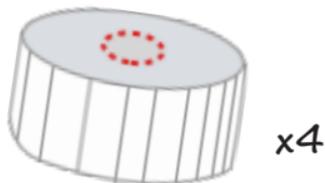
2. Cut out a large oval window from the bottom 1/3 of the bottle. This is the plant hole, where the plant will grow.



3. Poke two small "suspension" holes in the opposite sides of each bottle near the base.



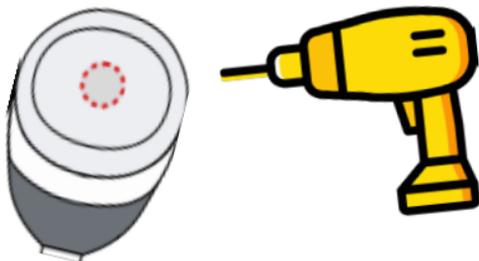
4. Cut a small hole out of the bottle cap.



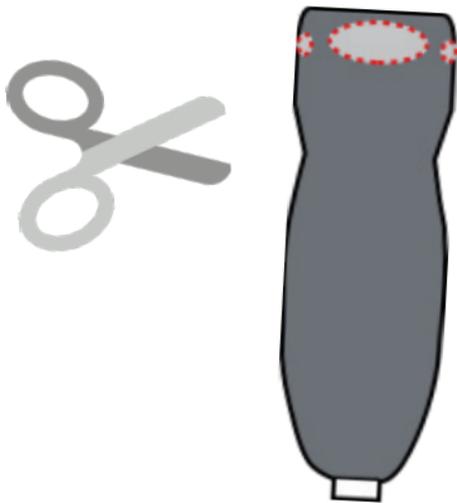
## Part Three: Prepare the Reservoir

The fifth, completely painted bottle is the water reservoir. Note: You may also use a gallon jug for the reservoir.

1. Drill or cut a hole in the base of each planter bottle about the same size as the mouth of the bottle (~3cm)



2. Cut a small oval hole near the base of the bottle.
3. Poke two small "suspension" holes in the opposite sides of each bottle near the base.

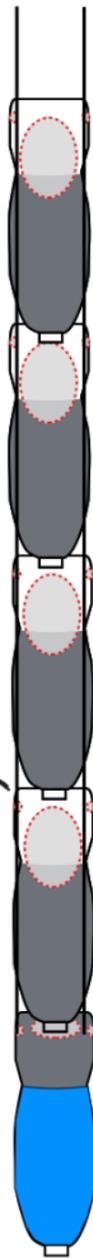


## Part Four: Suspend the Bottles

1. Connect ("daisy-chain") all 5 bottles by removing each cap and screwing the mouth through the hole drilled in the base of the one below it, putting the reservoir bottle at the bottom of the chain. Align all the Plant Holes and Water Hole (in the bottom reservoir bottle) in one direction.
2. Re-attach the caps to the bottles. Loop string or bead chain through the small suspension holes so that you can hang the series of connected bottles.

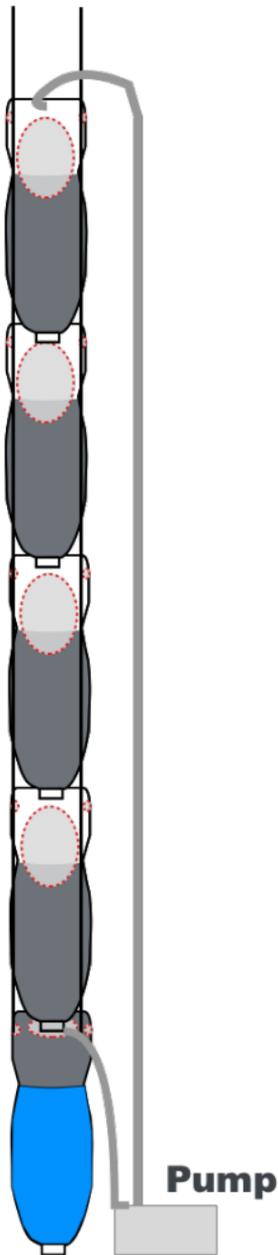


3. Hang the bottles from a secure location
4. Fill the bottom reservoir bottle with water.



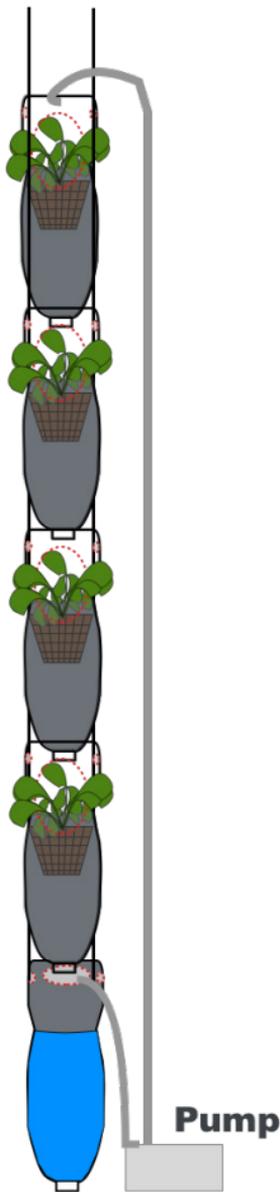
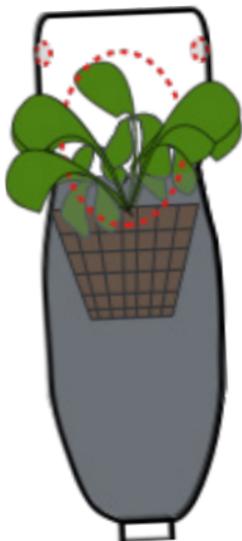
## Part Five: Setup the Water Pump

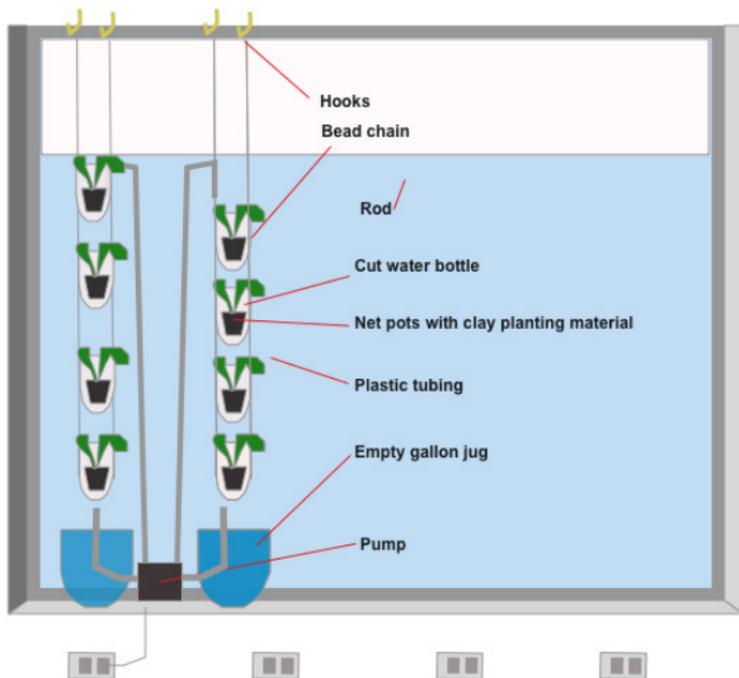
1. Place one end a tube in the reservoir and attach it to the water pump.
2. Connect another tube to the water pump and place the other end of the tube through the top of the top-most bottle.
3. You may want to put the water pump on a timer to control the feeding.



## Part Six: Setup the Plants

1. Put soil or non-soil planting material (recommended) in small net cups or small plastic plant pots.
2. Put your plant in the soil or non-soil planting material
3. Install your plants into the bottle farm by sliding it through the plant hole.





These instructions have been adapted from:

WindowFarms. WindowFarms Version 3.0 - DIY Instruction Book. June 5, 2010. <http://www.windowfarms.nl/wp-content/uploads/2018/03/Version-3.0-DIY-Instruction-Book.pdf>