

List of changes:

- N/A



Passive Hydroponics

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Material List

Number of steps: 8



0,5L-1L opaque PET/HDPE/LDPE plastic bottle (eg: milk bottle, juice package or bottle, cleaning liquid bottle, etc), #1



Cork stopper, #1



2-part or 3-part hydroponic nutrients, #1



2mL – 10mL plastic measuring syringe, #1



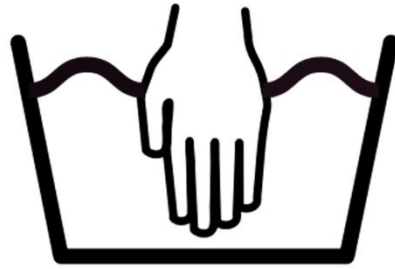
Herb/Salad/Greens seedling #1



Pocket knife, #1



1.



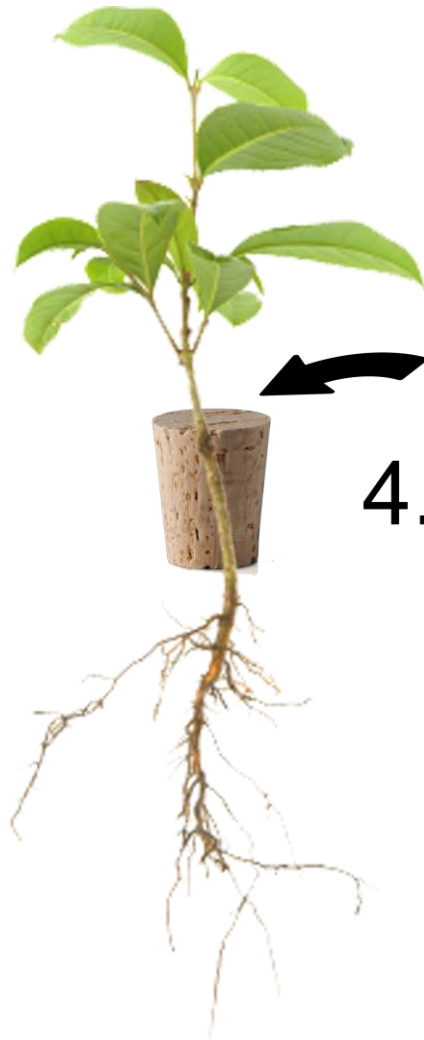
Hot water + soap

2.





**3. Softly rinse
soil from roots**



5.



Herbs	1,2 - 1,5mL/nutrient part
Salad	0,6 - 1mL/nutrient part
Greens	1 - 1,5mL/nutrient part



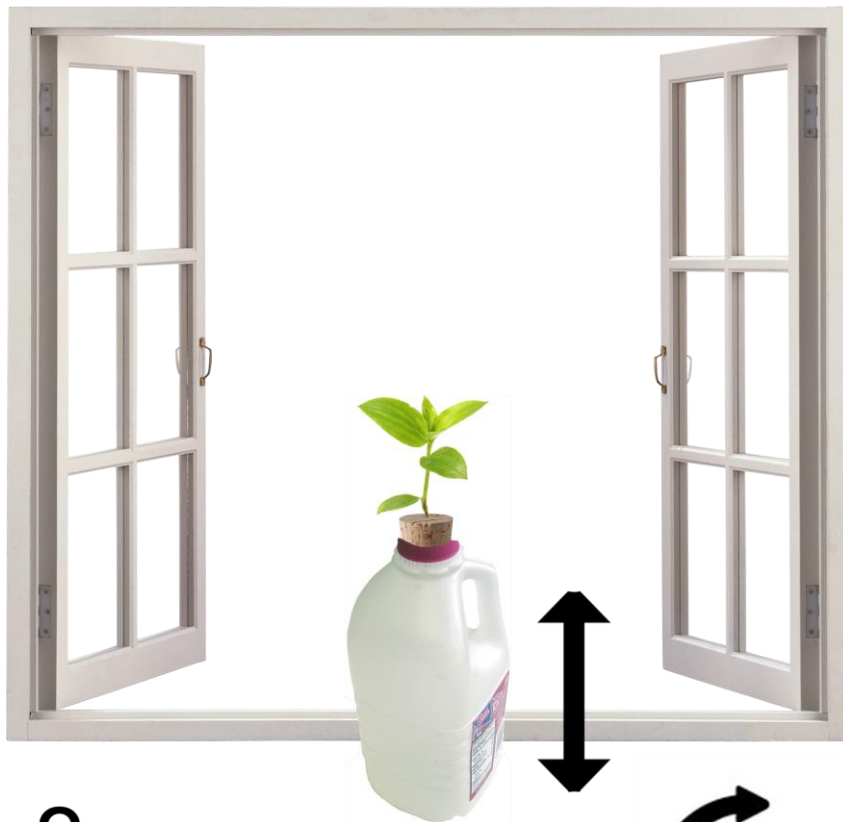
Top up with
tap water &
shake

6.





7. Place near window with sunlight access



8. Shake vigorously every day



Known Issues/Suggestions:

- Few options for opaque plastic bottles
- Shaking might not be enough to prevent root rot from occurring
- Commercial mineral hydroponic solutions are expensive and unsustainable (mined from the Earth)
- Requires soil for seeding; future version should enable seedling to be incorporated directly into top of bottle
- Difficult to do these systems vertically with the shape/weight of bottles

References:

- Three non-recirculating hydroponic methods for growing lettuce, 2009,
http://www.ctahr.hawaii.edu/hawaii/downloads/three_non-circulating_hydroponic_methods_for_growing_lettuce.pdf
- Vegetable requirements, accessed 2016,
http://www.homehydrosystems.com/ph_tds_ppm/ph_vegetables_page.html