



EDEN ISS Bottle Salad

Description of Hydroponic Plant Growth
& Directions for growing your very own hydroponic salad greens



Did you know that plants can grow in the air if its roots are kept moist with nutrient-enriched water?

- Generally, plants require soil from which they receive water, minerals and stability
- On a space station, plants are not exposed to wind or other weather conditions, therefore the stability and anchoring factor can be omitted in plant cultivation in space
- Water and minerals, on the other hand, are absolutely necessary requirements
- Since water and minerals can be absorbed directly from the roots of the plant, a mineral-enriched water vapor can replace the need for soil

This technique of plant cultivation is called ***hydroponics or aeroponics***

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This tutorial explains how to build a self-watering plant pot without the use of any soil



What you need

- Plastic bottle with lid
- Scissors
- Gimlet tool
- Coffee filter or cotton pad
- Seeds
- Aluminium foil
- Water
- Possibly plant food (fertilizer)

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How to make it in six easy steps



- Cut the plastic bottle in half



- Drill small holes in the bottle cap



- Put a thin piece of coffee filter or cotton into the lid
- Fill the lower half of the bottle with water



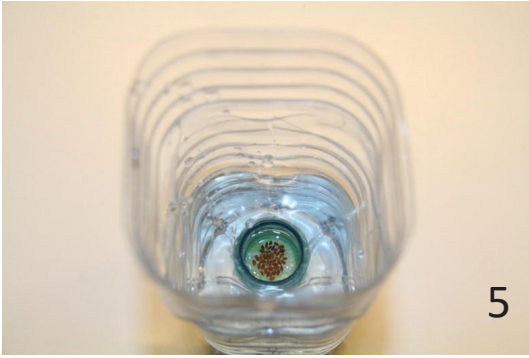
- Insert the upper half of the bottle upside down into the lower half

The bottle cap must be slightly submerged in water, so that the coffee filter/cotton wool can soak it up.

Throughout plant growth, the bottle cap should remain in contact with water.

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How to make it in six easy steps



- Place seeds on the coffee filter / cotton wool



- Wrap the lower half in aluminum foil so that no light can penetrate the root zone

>This prevents algae from forming

TIPS

- Make sure that the bottle cap stays in contact with water throughout the duration of plant growth. You will need to regularly add water into the lower half of the bottle crop
- You may add plant fertilizer to the water

If you plant herbs or lettuce, it will be ready to be harvested and eaten in a few weeks

ENJOY!