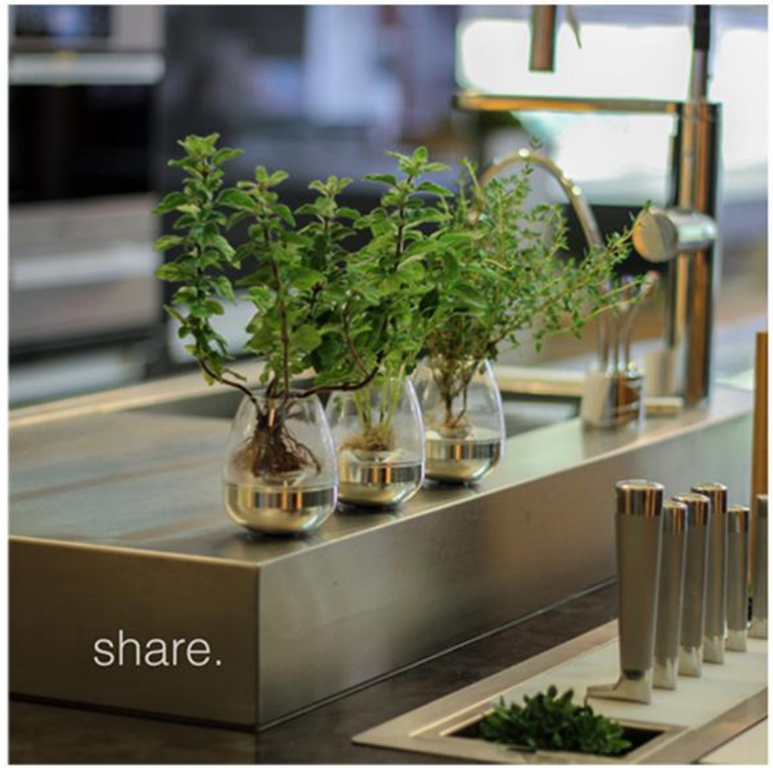






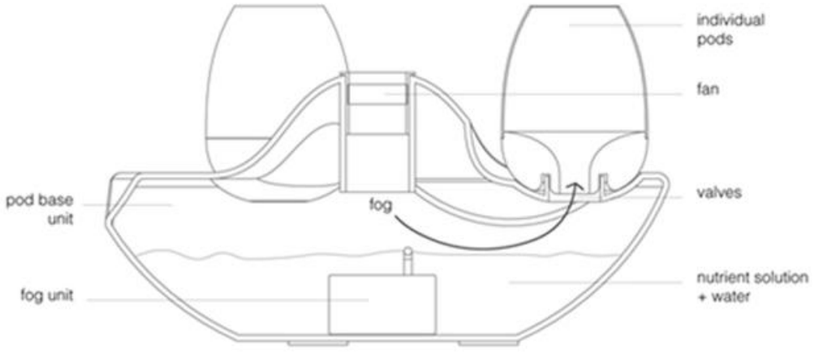

# fogponics

## how it works

Fogponics is a subset of hydroponics, which uses a nutrient rich solution in a vaporised form to transfer the nutrients and oxygen to suspended plant roots.

The Pod fogponics system uses an ultrasonic fogger to create 5-10 micron particles of vapourised nutrient solution within the centre of the unit. A microprocessor controls the fan, which manages the fog levels in the pods, and an additional switch allows users to top the level up when new pods are placed on the base unit.

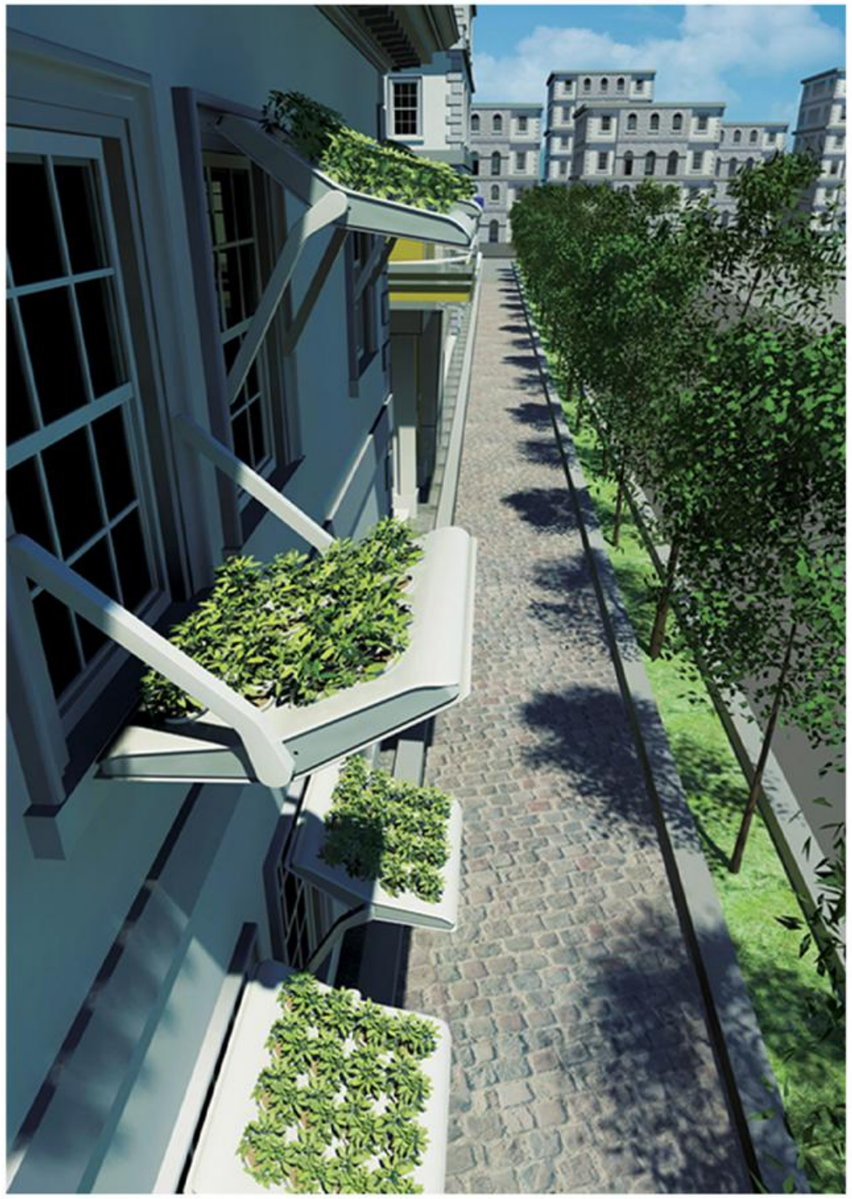
The added benefits of using fogponics is that the plants require less energy in root growth and mass compared to traditional hydroponic methods.

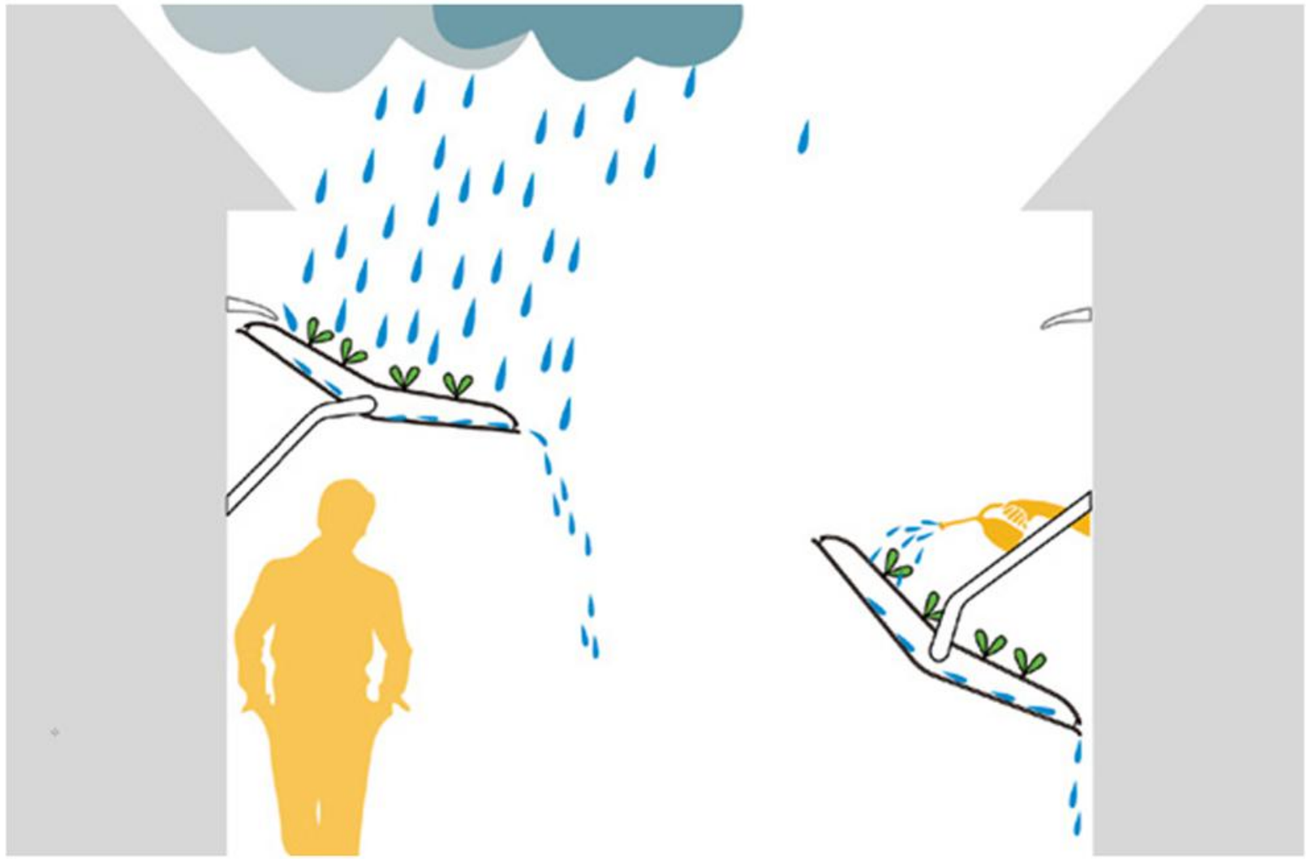



plant water switch on

Indoor gardening system that expands on the trend of growing herbs and veggies in smaller, **Share and trade** produce with friends and neighbors – cultivating a sense of **community**.
Automatically disperses nutrients and H20 in the form of fog rather than liquid.
https://www.yankodesign.com/2012/11/21/green-thumbs-up/

- **Moduler**
- **Easy**
- **For hobby**
- **No lightning element**





Herbow is a rain shelter and a window herb garden.
Going green by growing creepers and other such plants on their building's external walls,
to **lower internal temperatures and conserving electricity**.
By swinging Herbow upwards, it becomes a window shelter that blocks the harsh sunlight and the rain.
At the same time, the plants are watered and grow naturally.
https://www.yankodesign.com/2012/11/19/herbed-windows/

**- Multifunctional**
**- Outdoor**

| | | | |
|---|---|---|---|
| Dill | Basil | Swiss Chard Rainbow Mix | Jewel Capucine |
| Celery Green | Chinese Cabbage Bok Choy | Chinese Cabbage Tatsoi | Kale |
| Strawberries | Yellow And Green Dwarf Beans | Lettuce Green Oak Leaf | Peppermint |
| Green Onion | Triple Dark Curly Parsley | Cayenne Pepper | Sweet Peppers |
| German Thyme | Cherry Tomatoes | Bag Of Virgin Earth | More Coming Soon! |

**3**

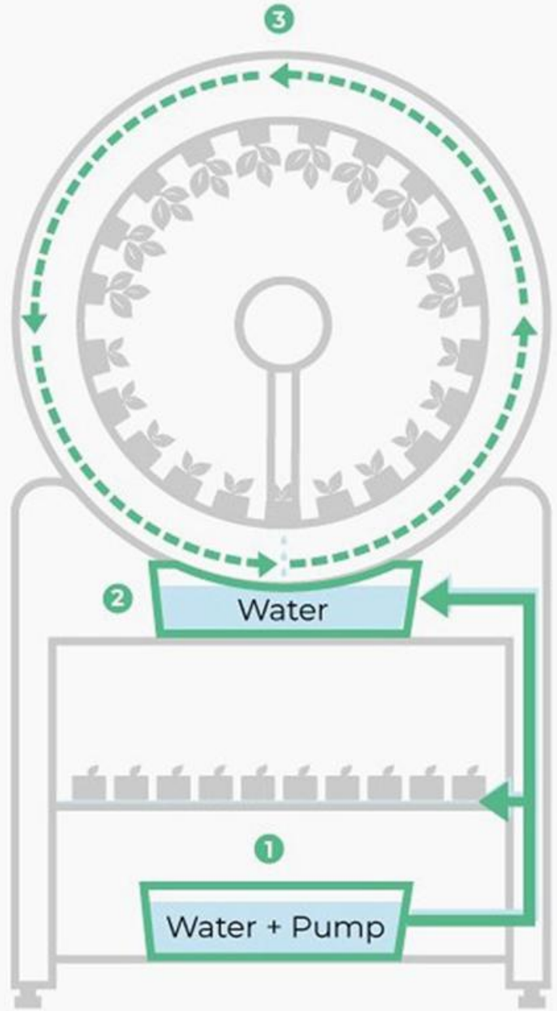
The rotating wheel gives each plant the opportunity to get just the right amount of water it needs to the thrive.

**2**

Water from the lower reservoir makes it's way up to the second reservoir and waters the plants.

**1**

The water from the reservoir makes its way up and waters the seed cups.



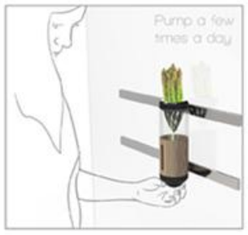

90 plants can be grown simultaneously.
Watering system that controls the plant's water intake;
the rotating wheel gives each plant the optimum amount.
Saving money on the grocery shopping.
Harvest your produce 30 to 40 days later.
Save you up to 80% on your veggie expenses.
https://www.yankodesign.com/2019/03/13/this-gardening-system-can-grow-up-to-90-fruits-and-veggies-at-once/

- **Diversity**
- **Pre-grow area**
- **Hands on action**
- **Autonomous**
- **Lightning arrange**
- **Shorter time**
- **Still not enough amount**

## Storyboard







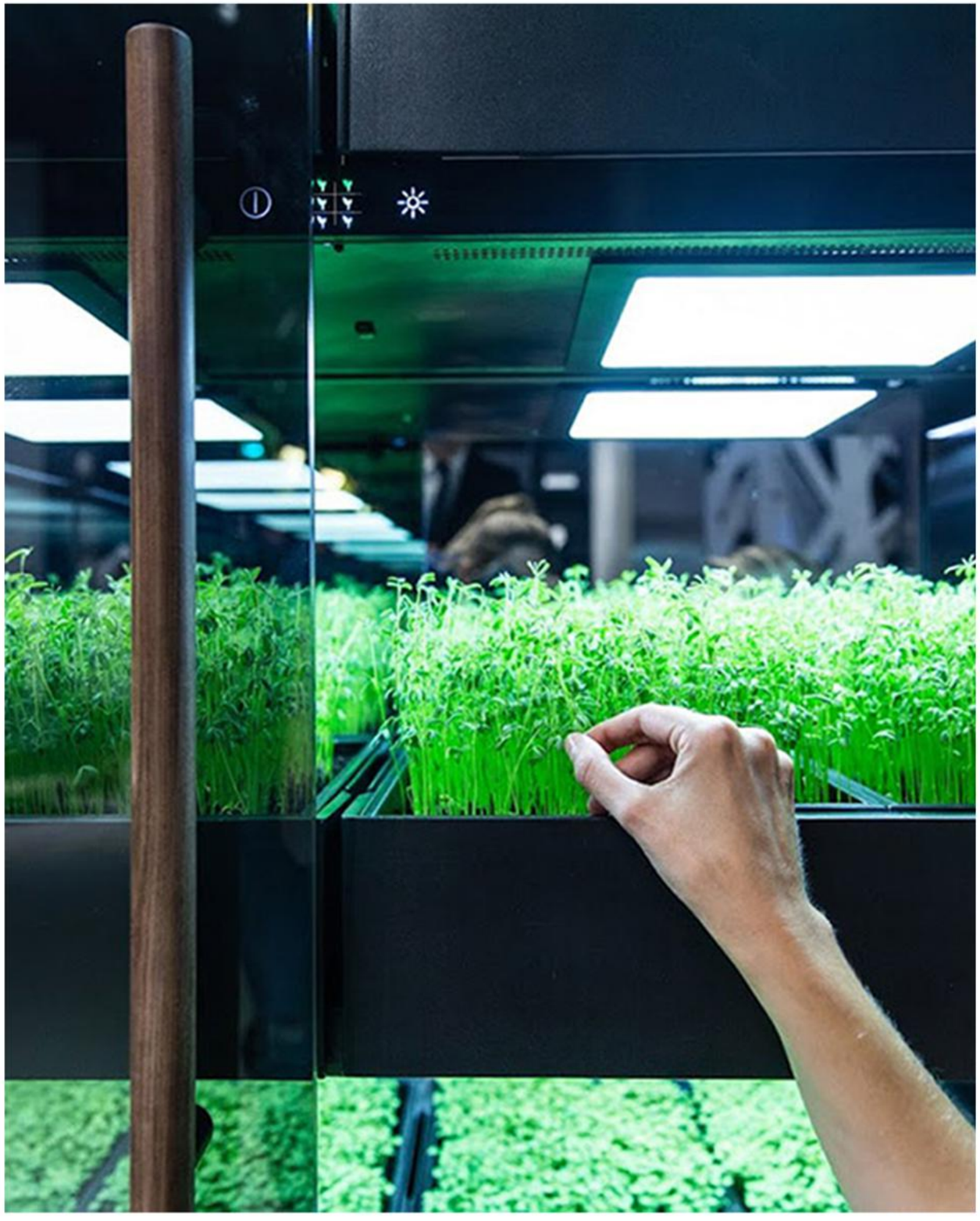






Oxygenating pump system means **no electricity** is needed for the product to operate.
Feeding the plant **from underneath** the product makes the process more efficient.
The user simply pushes the underlying rubber pump a few times a day releasing
bursts of oxygen into the nutrient tank above.
https://www.yankodesign.com/2012/06/29/hydroponics-at-home/

- **Space**
- **Theraphy**
- **No electricity**
- **Efficient**
- **Eco-friendly**

About the **size of a refrigerator**.
It features 3 sets of growing chambers.
An LED light box, air pump and a fan for atmospheric adjustments.
This smart appliance is entirely operable via a mobile app
where users can not only monitor internal conditions like **humidity and water levels**
but also keep track of **harvesting times, planting progress** and trends.
https://www.yankodesign.com/2017/04/10/herban-gardening-is-here/

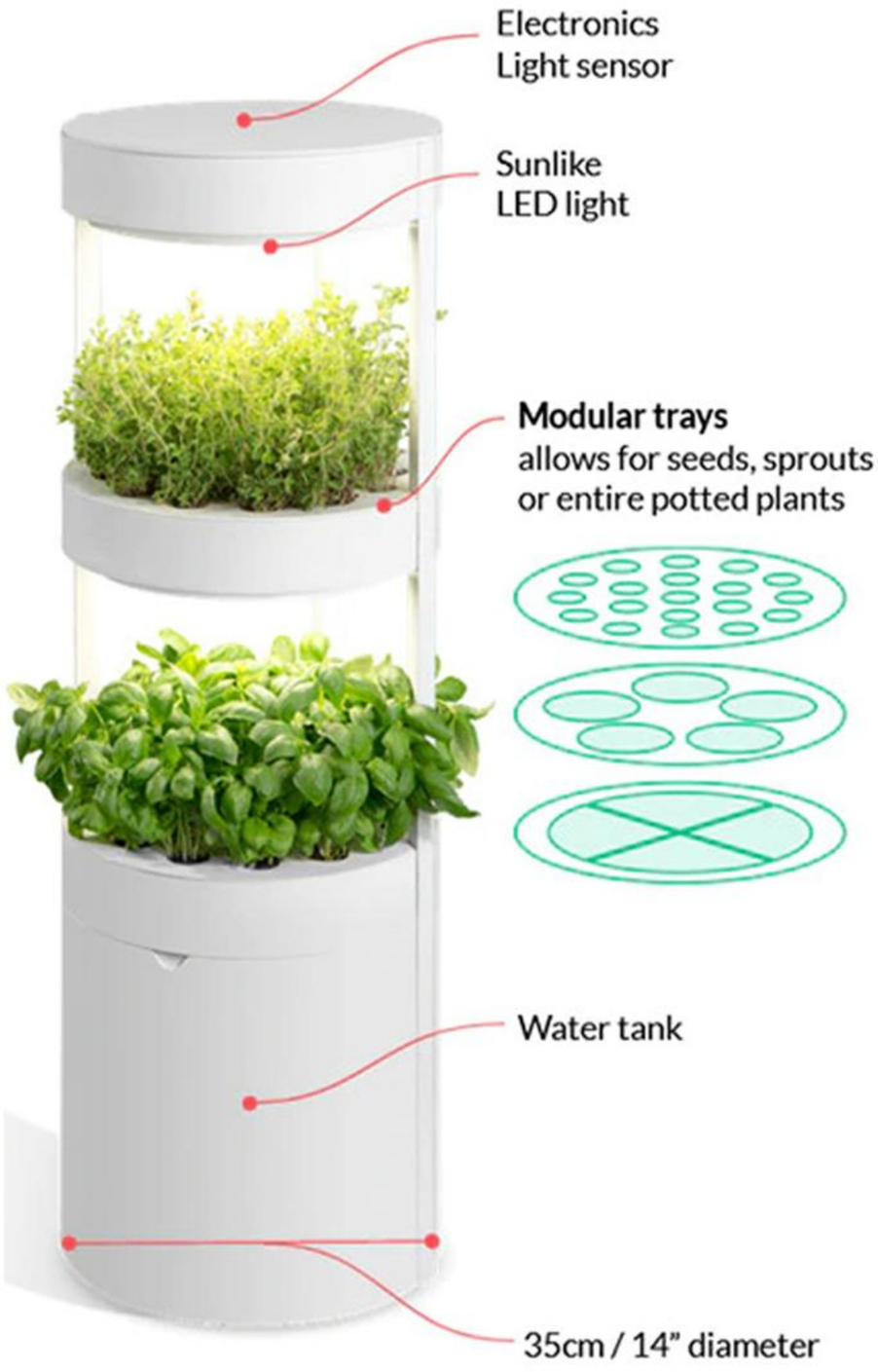
- **Onl herbs**
- **Too big**
- **Not efficient**
- **Luxury item**
- **For hobby yet exaggerated**
- **Hard to reach**

- As a furniture
- As an ornament
- Organized
- There could be bugs?
- Not for supplying
- No lightning
- Hands on process

Fine wood, chrome, and other premium materials, it nudges our preconceptions about how hydroponic systems should look scientific.
The traditional credenza-style bottom looks familiar while the upper portion looks entirely contemporary.
All of the working components are **neatly tucked away and efficiently organized** while the user's favorite herbs and veggies add a touch of green to their space.
https://www.yankodesign.com/2018/09/28/handsome-hydroponics/

Does calculations for plant needs.
A modular fully automatic gardening system that grows up to 76 plants.
The seed tray fits in 19 seed pods and is ideal for basil, lettuce, oregano, etc. which have 3-4 weeks growth time.
The Microgreen tray fits 4 microgreen pads and has a growth time of 7-10 days.
Automatically adjusts the water, energy, and nutrients required, without unnecessary wastage.
Near-natural light source that allows cultivate anywhere at any time.
https://www.yankodesign.com/2019/10/16/a-fully-automatic-yet-personalized-home-garden-that-grows-76-different-plants/

**- Modular**
**- Lightning**
**- Automated**
**- Self-tracking**
**- Multiple usage**
**- Regular grow cycle**



"It is better to teach people to fish than to give people fish" is an old saying in China.
Solving backward concepts and skills is the only way to solve poverty.It develops people's labor consciousness and ability by packaging the techniques of planting.When people develop the habit of working poverty, they will solve it.All kinds of crops and vegetables planted can effectively solve the problem of malnutrition among local people.
https://ifworlddesignguide.com/entry/277940-easy-grow

- Educational
- Easy usage
- Complicated to understand how to use
- Context relevant

# EASY GROW

Planting technology package

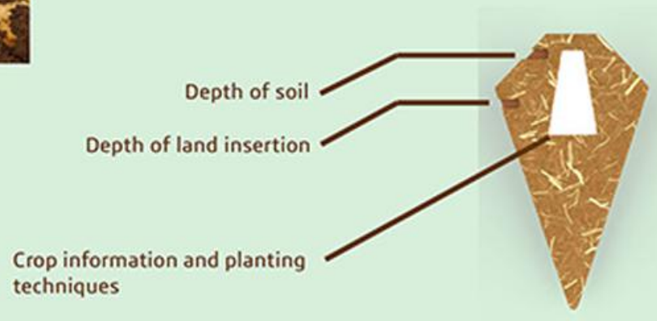
Agricultural waste such as straw

Soil containing fertilizer

Seeds of crops, such as potatoes

People in Africa and some poor areas do not have the skills and habits to grow a variety of crops.

The best way to solve poverty is to work and harvest.However, in some poor areas of Africa, people do not have the habits and skills to grow and harvest.This phenomenon also occurs in other underdeveloped areas, where single crops cause local people to under-nourished."EASY GROW" is made from agricultural waste and fertile soil, Its central part is wrapped with some locally lacking crop seeds.





**Your entry**

335-277940

04.MINSO DESIGN PRIZE 2019 by iF

**Concept**

EASY GEOW

**Student/s**

Yuan Cao

Yuxin Guo

Liangliang Chang

**University**

Northwestern Polytechnical Univ.

Zhengzhou University of Light Industry

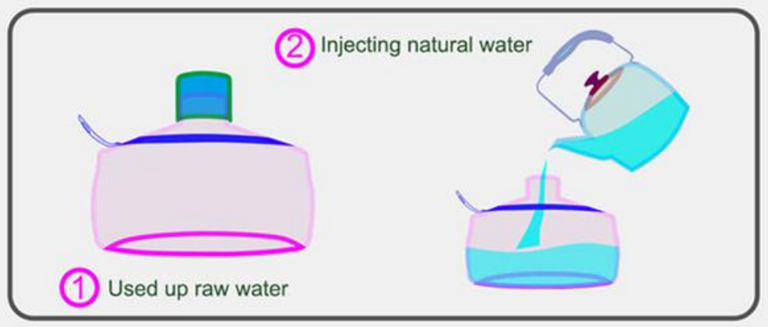
Hainan Normal Univ.

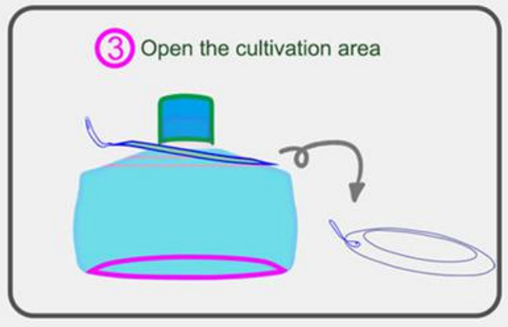
The war has caused many residents to be displaced, food shortages and lack of education.
International aid foods cannot be regenerated, so I designed a bucket that can grow vegetables
and regenerate food without soil. After using the raw water, pour the natural water,
open the vegetable seeds stored in the bottle cap, and then place the specially treated paper towel
at the planting site. After sowing, the seeds can grow and the barrels can be reused.
If they see that the vegetables they grow are growing stubbornly every day, they can give themselves hope for survival.
If there is a sudden war, they can also transfer vegetables at any time.
https://ifworlddesignguide.com/entry/278206-planting-vegetables

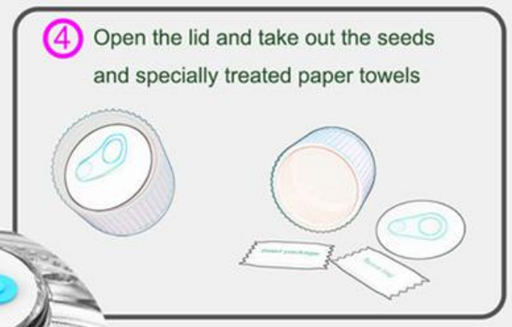
- **For unfortunates, war,imigrancy**
- **innovative**
- **Context relevant**
- **Easy to understand**
- **Easy to use**
- **for hope**

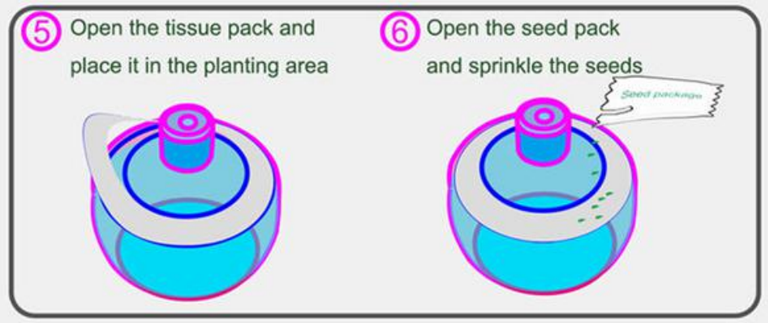
# Planting vegetables

**Design Notes:** The war has caused many residents to be displaced, food shortages and lack of education. International assistance is limited and it is more difficult to provide assistance in war-torn areas. International aid foods cannot be regenerated, so I designed a bucket that can grow vegetables without soil so that the food can be regenerated.Used up the run out raw water, pour the natural water, open the vegetable seeds stored in the bottle cap, and then place the specially treated paper towel at the planting site. After sowing, the seeds can grow and the barrels can be reused to grow vegetables. If they have this aid bucket, they don't have to worry about aid delays and no food. The label on the barrel is a technical process that teaches how to grow vegetables without soil. If they see that the vegetables they grow are growing stubbornly every day, they can give themselves hope for survival. If there is a sudden war, they can also transfer vegetables at any time.




Bucket opening detail

Seeds and paper towels are stored in the lid of the bucket

Design note: this product aims to solve the problem of education shortage in biological planting experiments in poor areas.
The biodegradable box body can be transplanted directly without removing the shell and changing the basin.
At the bottom, a small partition is designed to store water.
The cotton rope is used to absorb water and transfer it to the roots of plants.
The planting process is on the back of the outside package of the box.
https://ifworlddesignguide.com/entry/278270-interesting-planting-cup

- Educational
- Playful
- Innovative
- Easy to understand and use

# Interesting Planting Cup

## Experimental teaching aids for biological planting



The cup structure is composed of four parts from top to bottom. The first layer is the cover of the cup. In addition to dustproof, it can also play the role of fixing the top cup when two cups are stacked together.

The second layer is the place for the cup to hold soil and seeds.

The fourth layer is the hollow part, allowin g the water to leave the bottom of the cup; The bottom layer is the bottom of the cup, which is used to hold the water that has not been absorbed by the plants during watering. Internal drainage and water storage and drainage problems can be solved by storing the excess water. The water vapor can evaporate when the sun heats up.


The aim of this product is to solve the educational shortage of bio-plant experiments in poor areas. The boxes made of environmental degradable plant fibers can be transplanted directly without shelling and changing pots. A small water storage layer is designed at the bottom, and water is absorbed by cotton rope to transfer to the root of the plant. The back of the boxes is planting process, which guides students to observe planting and learn relevant knowledge. Knowledge.

PROCEE:

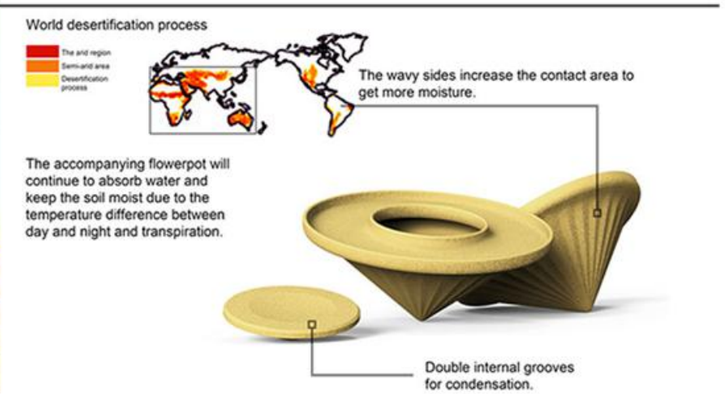
Entry :
335-278184
04.Year 2019 merit product design award by the iF - to eliminate all forms of poverty around

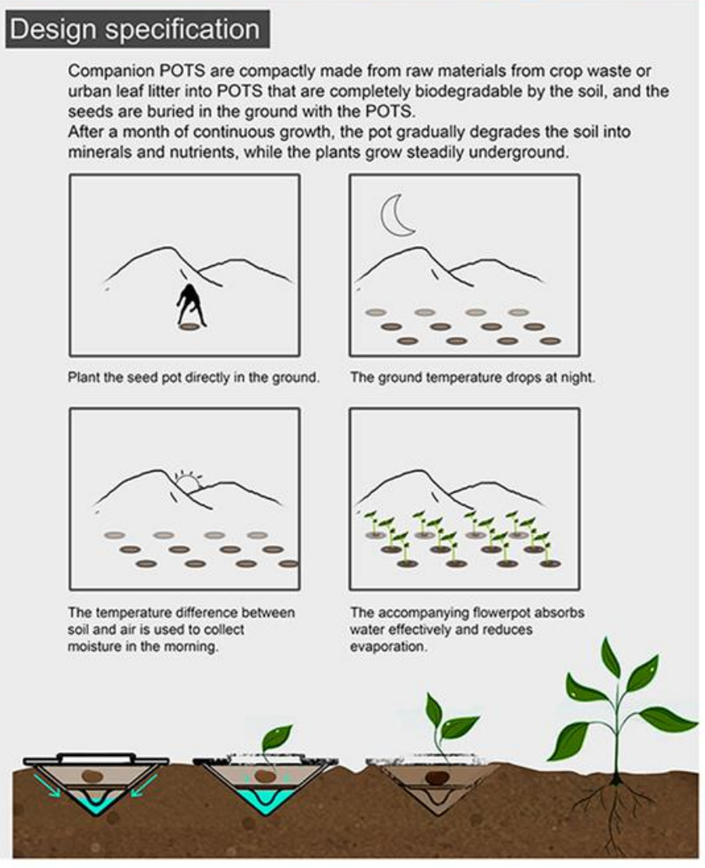
Concept :
Interesting Planting Cup

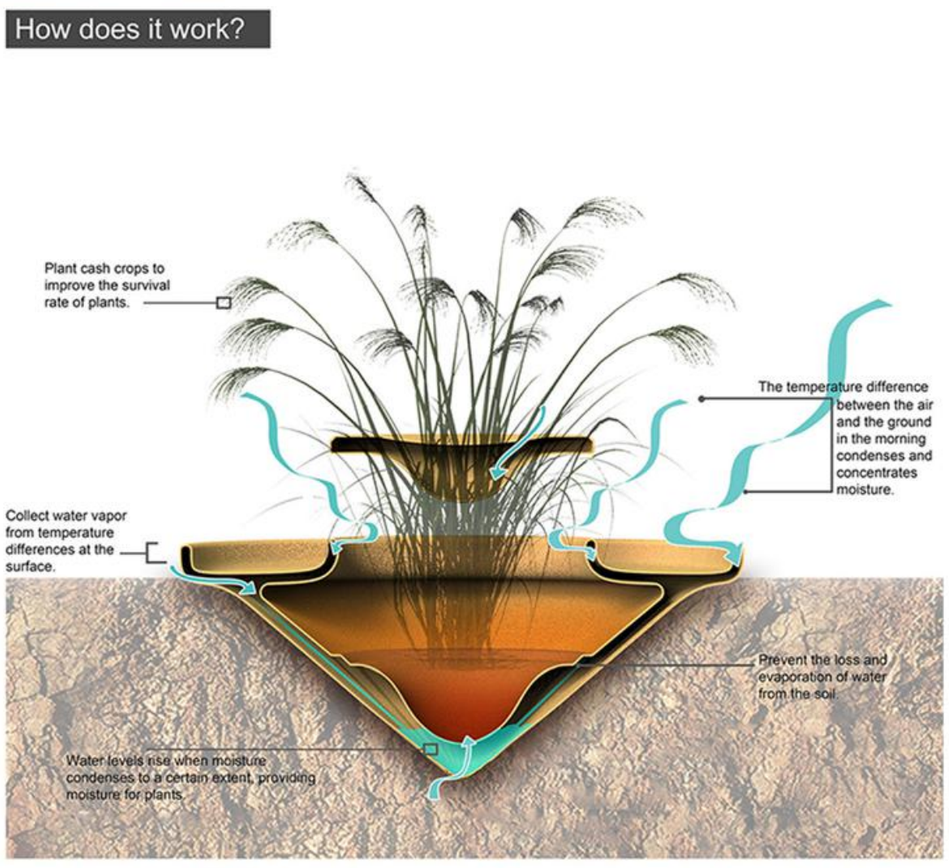
Student/s :
Yilong/chen
Fuming/ting
Yuceng/liu

University :
Beijing normal university, zhuhai
zhuhai, China
Industrial design





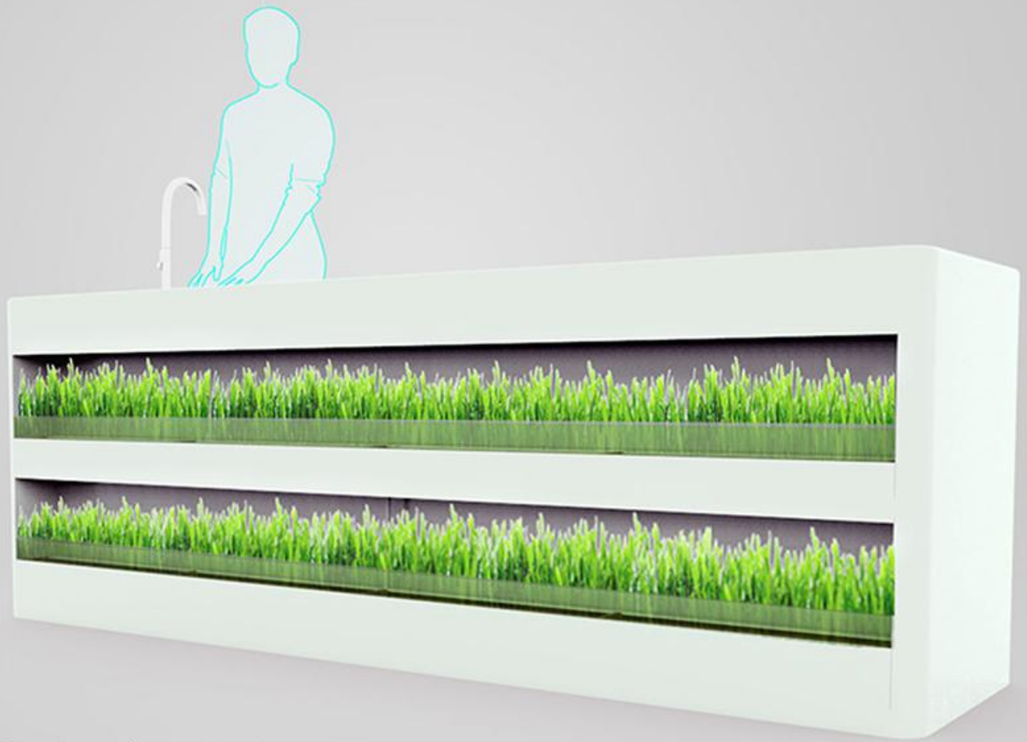



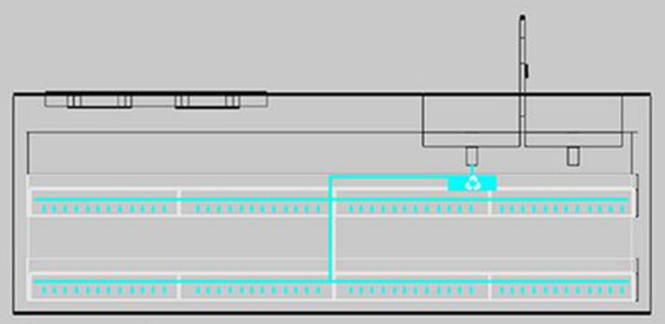

| Your entry | Concept | Student/s | University |
|---|---|---|---|
| 335-277420 | Accompanying a flower pot | Xiting Zhao | Shenyang Ligong University |

Nowadays desertification is no longer a purely ecological and environmental problem,
but also an economic and social problem,
which brings poverty and social instability
to human beings. For those threatened by desertification, it means that they will lose their most basic subsistence -- a lack of food. Accompanying flowerpots are designed to grow crops and improve plant survival in desert areas. On the basis of preventing wind and fixing sand, increase economic income to improve living environment for people in desertification areas.
https://ifworlddesignguide.com/entry/277420-accompanying-a-flower-pot

- **Innovative**
- **Context relevant**
- **Deserts**
- **Poverty**

# Garden Kitchen

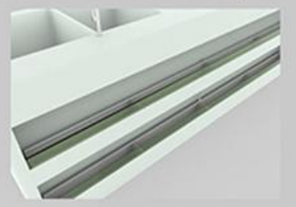


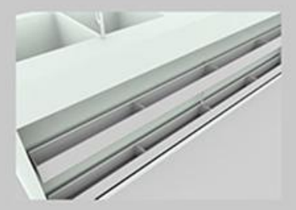


## Instructions:

The sewage is filtered through a water pipe and then flows down into the flowers

## Structure diagram:





## Design description:

More than 1 liter of clean water is used on average every day in the kitchen for washing vegetables and fruits. Using such sewage for irrigating flowers and plants can not only recycle water resources, but also take advantage of function of water as a life-giver. As the ancient Chinese philosopher Laocius said, "the greatest virtue is like water." In his opinion, water benefits all creatures on earth but does not take the credit; water seems weak but is full of strength. Therefore, the garden kitchen design recycles kitchen sewage for irrigating flowers and plants to enrich the meaning of water and make it of greater values.

## Problem to solution:

The kitchen cleaning of fruits and vegetables daily average of more than 1 liters of water, for watering can play a role in recycling

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Using such sewage for irrigating flowers and plants can not only recycle water resources,
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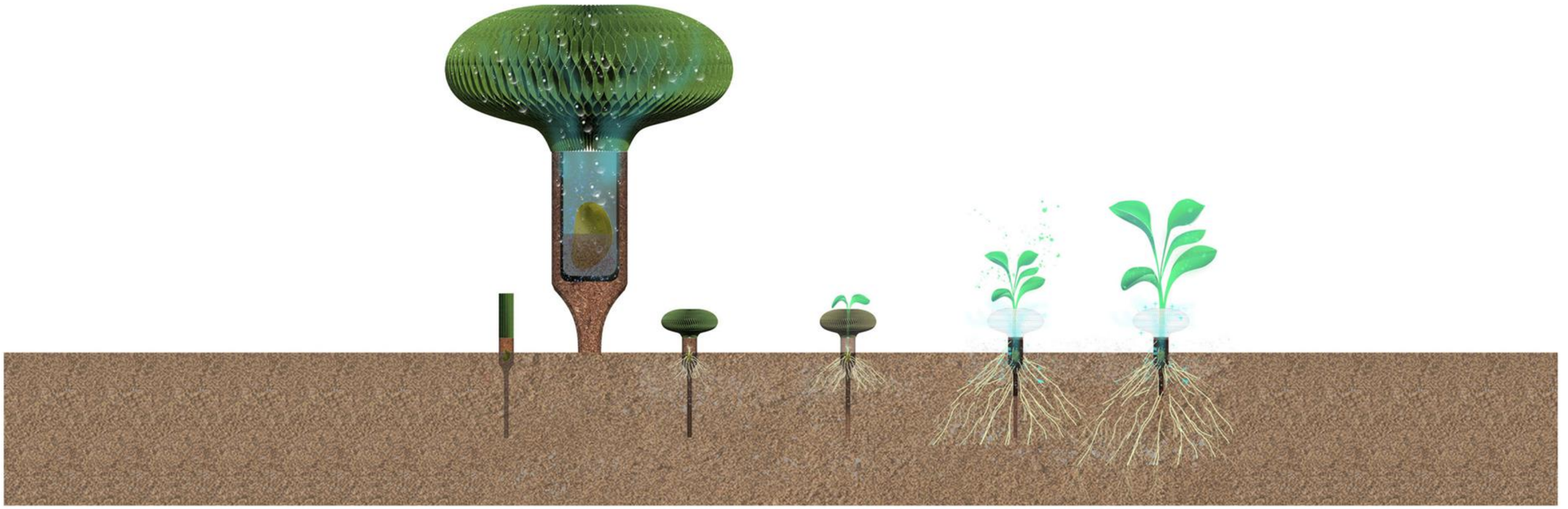
and plants to enrich the meaning of water and make it of greater values.
https://ifworlddesignguide.com/entry/219341-garden-kitchen

- **Modular**
- **Lightning**
- **Automated**
- **Self-tracking**
- **Multiple usage**
- **Regular grow cycle**



CACTUS is a design that supplies water to crops by collecting water from the air.
The aim is to solve the problem that crops in arid regions of Africa are difficult to survive due to lack of water. By tailoring a botanical private water collector for crops,
we collect the water from the air every day, and infuse the water into the crops itself to help the crops grow forward and support the crops to grow strong roots.
CACTUS consists of degradable materials. When the crops grow strong enough,
CACTUS will retreat and slowly degrade into the nutrients needed by the crops.
https://ifworlddesignguide.com/entry/278426-cactus

**- Innovative**
**- Context relevant**
**- Multipurpose**
**- Humadity**
**- Africa**


The lack of water is a huge problem with our society.
We can do small effort to protect our earth trough this product.
When you wash your dishes,
there're still leave a water that waste in a moment.
We focus on the wasting of water from dishes,
and think about a solution to recycle the water with nature.
After washing the dishes, put the dishes on the Rainy Garden.
Then the water in the dishes dropped on the plant by the gravity.
The growing herb could be your food ingredients.
After a meal you have to clean the dishes,
and also the reusing of water would begin.
Rainy garden has a led helping the plant growing under the loop.
https://ifworlddesignguide.com/entry/215123-2chois

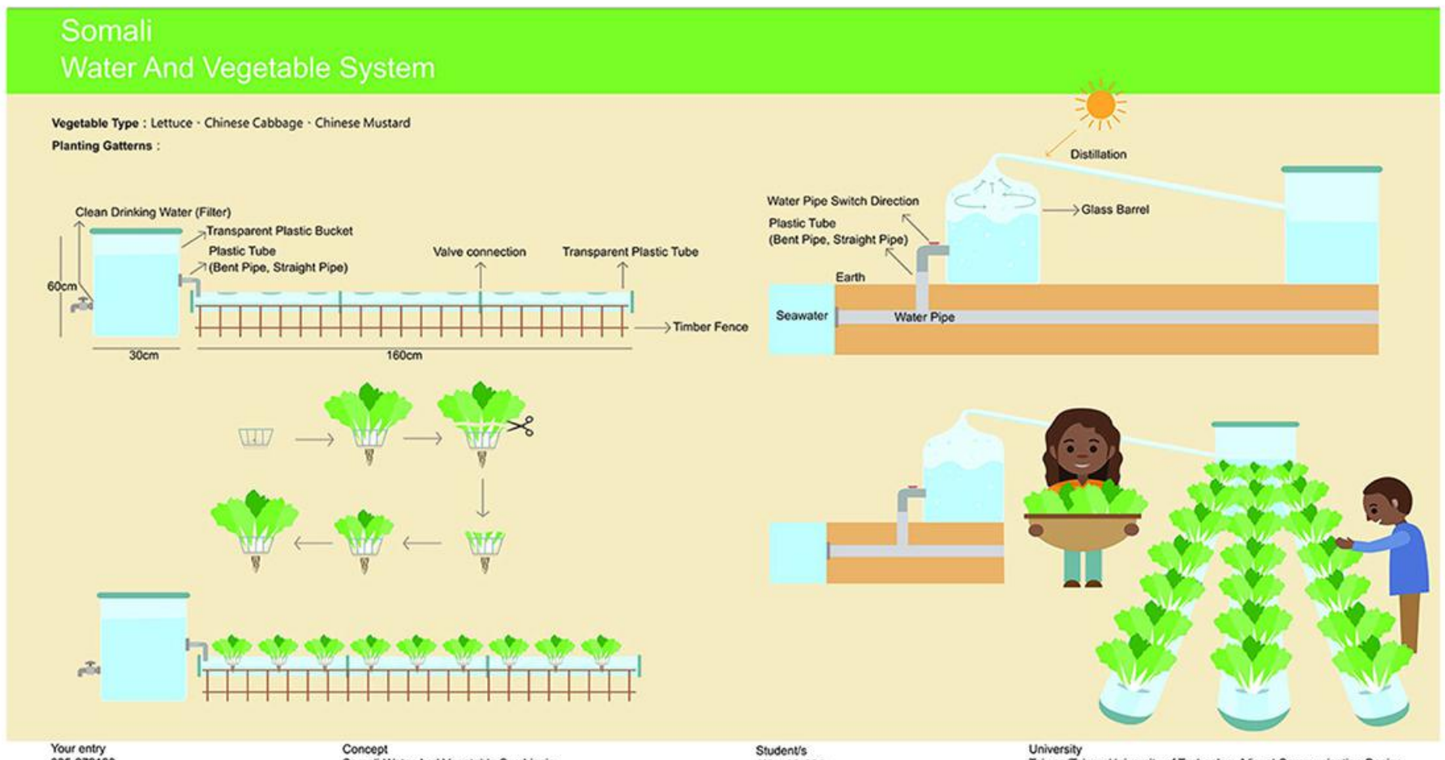
**- Different aspect**
**- Daily use**
**- Multiuse**


Ending poverty means to me to think on a circular community where the outcome of this circle goes to the ones who are in need.
This project isn't pointing out to end poverty directly but it aims to give us an idea of how different personas can work together and help each other by producing an economy.
Today, agriculture faces a lot of threatens yet it is still one of the powerful tool to make living.
This project tries to connect the people from cities who has no knowledge on farming and farmers who has threatened by the industry. And aims to create and sustain an outcome for people who are in need with producing food and job growth.
https://ifworlddesignguide.com/entry/278826-concept-for-agriculture-community-and-smart-pot

**- Awareness**
**- Sharing**
**- high tech**

Dew Collector is a Family vegetable planting Assistant Device.it use the diurnal temperature difference to collect dew in the morning to help vegetables grow.
https://ifworlddesignguide.com/entry/277908-dew-collector

**- What makes it family product?**
**- How does it help?**
**- Plant assistant device is good**


Somalia is rated as the "most failed country" in the world,
with tens of thousands of Somalia dying every year.
Malnutrition, and drinking unclean water,
fell into a state of extreme poverty.
This setting Actively take the following measures:
to solve the problem of micronutrient and water element deficiency,
the way of planting Designed with low cost of materials,
through recycling, recycling systems, producing more food
and Eutrophic food and water,
which can be self-sufficient in the future,
can increase food production by 20% to 30%. Yield.
https://ifworlddesignguide.com/entry/272120-somali

**- Somalia**
**- Long term**
**- Sustainable**
**- Multipurpose**
**- Filtering**
**- Producing**
**- Low cost**

This product is designed to eradicate poverty. Considering that food is the most important problem to be solved in Africa, a seeder is designed from this point of view. The advantages are portable and easy to operate.
Just insert the metal head into the soil and press the plastic part, the metal head below will be scattered four corners under pressure, and the seeds will fall into the soil. When pulled out, the soil next to it will bury the seeds. This method is not only labor-saving, but also can improve the efficiency and increase the germination rate of the seeds.
https://ifworlddesignguide.com/entry/271226-portable-seeder

- **Help producing**
- **No context relevant**
- **Innovative**

# Portable Seeder

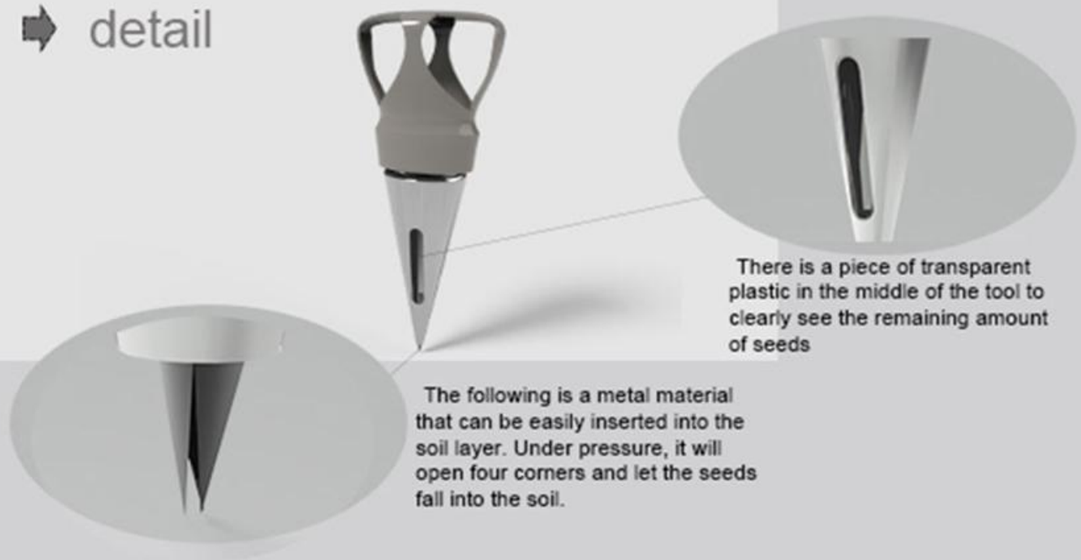
## Design Notes

This product is designed to eradicate poverty. Considering that food is the most important problem to be solved in Africa, a seeder is designed from this point of view. The advantages are portable and easy to operate. Just insert the metal head into the soil and press the plastic part, the metal head below will be scattered four corners under pressure, and the seeds will fall into the soil. When pulled out, the soil next to it will bury the seeds. This method is not only labor-saving, but also can improve the efficiency and increase the germination rate of the seeds.。

## promblem

Africa's original cultivation methods are backward, food production is very low, and it is difficult to solve the problem of food and clothing.

## detail

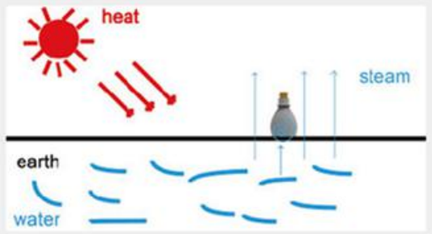



## use


| Your entry | Concept | Student/s | University |
|---|---|---|---|
| 335-271226 | Portable Seeder | Lisha/Rao | beihai college of art design |

This is a bottle design that can help solve the problem of plant seedling in areas of water shortage. It reduce plastic waste, Better retention of soil moisture,low cost and Easy to use
https://ifworlddesignguide.com/entry/273053-tearable-bottle

- Low cost
- context relevant
- Easy to use
- Multipurpose
- Humadity, slow

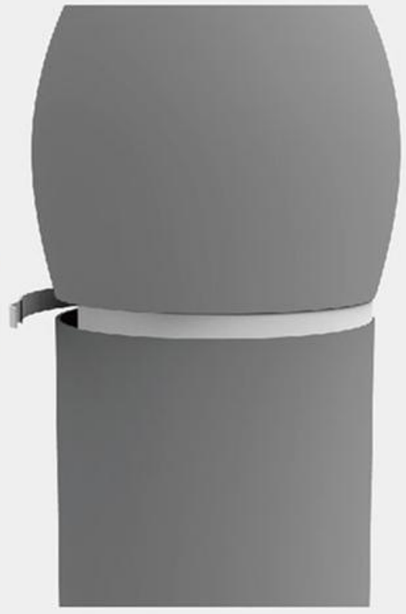



This is a bottle design that can help solve the problem of plant seedling in areas of water shortage.

There are a lot of dry areas in Africa today, and people often have trouble raising seedlings because they don't have enough water, which leads to a lack of plants, finally leads to lack of food.

Step1
Drink out the water inside the bottle

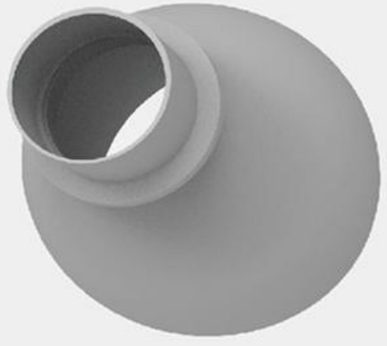
Step2
Open the bottle along the side



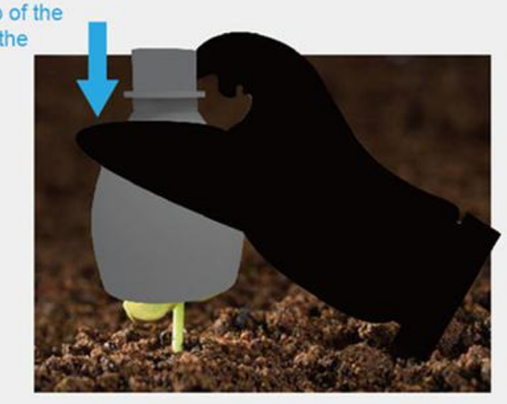
# Tearable bottle

Advantages
*Reduce plastic waste
*Better retention of soil moisture
*Low cost big change
*Easy to use

The bottle USES the principle of evaporation to reduce evaporation by covering the plants with conical plastic. The bottle is divided into three parts, the top is an arc shape, the middle is a tear easily sealing strip, the bottom is a cylindrical plastic. How to use: first, after drinking the water in the bottle, we tear the sealing strip in the middle, cut the bottle in two, and then insert the top plastic into the soil around the plants.



Step3
Put the top of the bottle into the soild



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Concept
Tearable bottle

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