

可持续概念集水洗手池设计

Sustainable concept wash basin design

清洁用水与卫生+良好的健康

Clean water and sanitation + good health

A detailed study of the water demand and use in the world's water scarce areas led to this design.

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Most countries in Africa are in arid areas, and water storage facilities are not perfect.

2

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A detailed study of the water demand and use in the world's water scarce areas led to this design.

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There is an atmosphere lamp on the top, which is more convenient to use at night.

4

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The interior is also provided with UVC and atomization sterilization.

PRODUCT DESIGN DACKGROUND

01 产品设计背景

Product design background

灵感来源：inspiration source



- 非洲绝大多数国家都处于干旱地区，储水设施也不够完善。
 1. 非洲大陆的大多数国家面临严重的水资源短缺。
 2. 没有获得干净和淡水的机会，通常依靠储存雨水生存。
 3. 不卫生和不洁的水给他们带来许多疾病。
- Most countries in Africa are in arid areas, and water storage facilities are not perfect.
 1. most countries on the African continent face serious water shortages.
 2. there is no access to clean and fresh water, and they usually live by storing rainwater.
 3. unhygienic and unclean water brings them many diseases.

PRODUCT DESIGN POSITIONING

02 产品设计定位

Product design positioning



- **设计关键词：**收集雨水 蓄水 过滤 内部消毒
清洁用水 紫外线消毒 废水再利用

Design key words: rainwater collection, water storage, filtration, internal disinfection, cleaning water, ultraviolet disinfection, wastewater reuse

- **定位说明：** Positioning instructions:

对世界缺水地区用水需求和使用情况的详细研究催生了这个款设计。本设备运用光伏能源作为能量，通过集水和新型多孔晶体——金属有机骨架在空气湿度低至20%的环境下也可收集净水，进行有机过滤和循环利用，提供可持续的清洁水源。同时洗手在对抗新冠肺炎和其他传染病蔓延时期至关重要，内部还置有UVC和雾化杀菌，利用适当波长的紫外线和气体雾化，达到杀菌消毒的效果。

- A detailed study of the water demand and use in the world's water scarce areas led to this design. The equipment uses photovoltaic energy as energy. Through water collection and new porous crystal metal organic framework, it can also collect purified water in the environment with air humidity as low as 20%, carry out organic filtration and recycling, and provide a sustainable clean water source. At the same time, hand washing is very important in the period of fighting against the spread of COVID-19 and other infectious diseases. UVC and atomization sterilization are also installed inside. Ultraviolet and gas atomization with appropriate wavelength are used to achieve the effect of sterilization and disinfection.

02 场景定位

DESIGN POSITIONING

1

缺水地区

Water shortage area

- 缺水地区清洁用水问题，可以有效的收集水源，进行储存使用。
- Clean water in water shortage areas can effectively collect water sources for storage and use.

2

学校环境内

Within the school environment

- 在非洲学校环境内放置，学生有效的进行手部清洁，养成良好习惯减少疾病传播。
- Placed in the African school environment, students can effectively clean their hands and develop good habits to reduce the spread of disease.

3

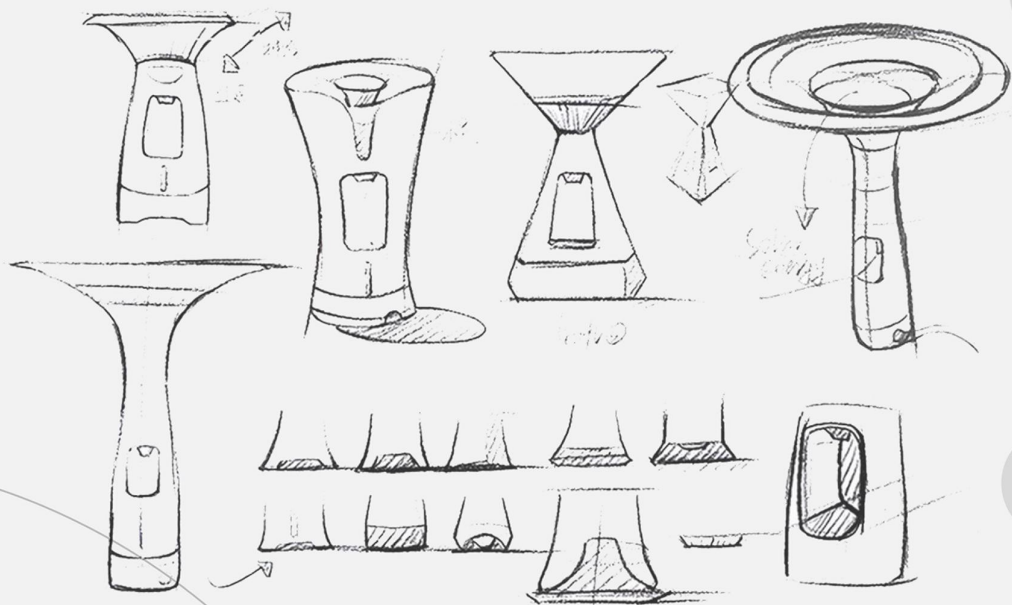
疫情地区

Epidemic area

- 可以在疫情环境下放置，在节约水源的同时，可以有效清洁防止疫情传播。
- It can be placed in the epidemic environment, which can effectively clean and prevent the spread of the epidemic while saving water.

03 草图设计 Sketch design

草图绘制 Sketch design



氛围灯设计 Atmosphere lamp design

顶部设有氛围灯夜晚使用更加便捷。

There is an atmosphere lamp on the top, which is more convenient to use at night.



过滤装置 Filter unit

顶部设有过滤装置形成集水-过滤-使用的过程。

A filtering device is arranged on the top to form a process of water collection, filtration and use.



消毒装置 Disinfection device

内部还置有UVC和雾化杀菌，利用适当波长的紫外线和气体雾化，达到杀菌消毒的效果。

The interior is also provided with UVC and atomization sterilization, and the ultraviolet and gas atomization with appropriate wavelength are used to achieve the effect of sterilization and disinfection.

04 产品展示 Product display

产品展示 Product display



- 环形氛围灯，夜晚使用更加便捷。
Ring atmosphere lamp makes it more convenient to use at night

- UVC杀菌
UVC sterilization

- 显示水量
Display water volume

- 侧面出水口
Side outlet

- 雾化消毒器
Atomizing sterilizer

- 洗手池
Wash basin

- 沉淀物排放口
Sediment drain

可持续概念集水洗手池：

Sustainable concept hand wash basin:

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04 产品展示 Product display

产品展示 Product display



本设备运用光伏能源作为能量，通过集水和新型多孔晶体——金属有机骨架在空气湿度低至20%的环境下也可收集净水，进行有机过滤和循环利用，提供可持续的清洁水源。同时洗手在对抗新冠肺炎和其他传染病蔓延时期至关重要，内部还置有UVC和雾化杀菌，利用适当波长的紫外线和气体雾化，达到杀菌消毒的效果。

The equipment uses photovoltaic energy as energy. Through water collection and a new porous crystal metal organic framework, it can also collect purified water in an environment with air humidity as low as 20%, conduct organic filtration and recycling, and provide a sustainable clean water source. At the same time, hand washing is very important in the period of fighting against the spread of COVID-19 and other infectious diseases. UVC and atomization sterilization are also installed inside. Ultraviolet and gas atomization with appropriate wavelength are used to achieve the effect of sterilization and disinfection.



04 产品展示 Product display

产品展示 Product display

Clean water and sanitation 清洁用水和卫生

- 循环边洗手池概念设计
Conceptual Design of circulating filter hand washing basin
- UVC紫外线杀菌消毒
UVC ultraviolet sterilization

设计说明: design description
A detailed study of water demand and use in water scarce areas of the world gave birth to the design. The equipment uses photovoltaic energy as energy through water collection and new porous crystal metal organic filtration and recycling to provide automatic clean water sources. At the same time, washing hands in the light against COVID-19 and other infectious diseases are very important in the current period. UVC and atomization sterilization are also installed inside to facilitate the effect of sterilization and disinfection can be achieved by combining with ultraviolet and gas of appropriate wavelength.

灵感来源: Inspiration source
非洲大陆的大多数国家都有严重的水资源短缺。不卫生和脏水的水给他们带来了许多疾病。没有获得干净和淡水的机会，通常依靠储存雨水生存。

产品展示图: Product display diagram
The main image shows the product in a desert landscape. It features a large, funnel-shaped top for water collection, a central column with a filter, and a base with a side outlet. Labels include 'Filter', 'Catchment water storage', and 'Side outlet'.

产品细节图: Product detail diagram
Detailed views of the product components, including the funnel, the central column, and the base. Labels include 'UVC杀菌 UVC sterilization', '雾化消毒器 Atomization sterilizer', '显示水量 Display water volume', and '侧出水口 Side outlet'.

产品草图: Product sketch
A series of hand-drawn sketches showing the product from various angles and in different stages of development.

产品尺寸图: Product R/D diagram
Technical drawings showing the dimensions and internal structure of the product.



设计说明: Design description

本设备运用光伏能源作为能量，通过集水和新型多孔晶体——金属有机骨架在空气湿度低至20%的环境下也可收集净水，进行有机过滤和循环利用，提供可持续的清洁水源。同时洗手在对抗新冠肺炎和其他传染病蔓延时期至关重要，内部还置有UVC和雾化杀菌，利用适当波长的紫外线和气体雾化，达到杀菌消毒的效果。

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THANK YOU

Thank you for watching

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