Better City Better Life

GREEN+ 懒人菜盆

joint Tsinghua-Stanford International Urbanization Seminar

¥6 participatory urban greenery

Project Description

GREEN

Analysis of the Tiancun district in Beijing, China and its residents
Proposal to repurpose the district, making it more social, sustainable, and greener
Urban gardening device prototype, tailored to the residents' needs

China's Urbanization and Problems

Background Analysis

China has gone through drastic change in the recent years. One particular trend is the countries' rapid urbanization, which changes the way people live.

In these emerging cities, people increasingly feel isolated. Thus, they seek a sense of belonging in their neighborhood, and demand more on community service. As part of our project, our team has analyzed these trends. Today, we will give you a brief overview of these new living conditions and present, as a result, possible solutions to it.

How can we utilize smart technology to improve community life and neighborhood relationship, and make communities nicer to live in?

Study Site Overview

Background Analysis

TIAN CUN district

120,000 residents; typical rural-urban fringe district;
resident-unfriendly living conditions: dirty, noisy and messy;

FUSI Neighborhood

One of the 31 neighborhoods in TIAN CUN district.

FUSI Courtyard

located in FUSI neighborhood
Public service to residents in TIAN CUN district.
Repurposing an obsoleted bicycle shed to district center.

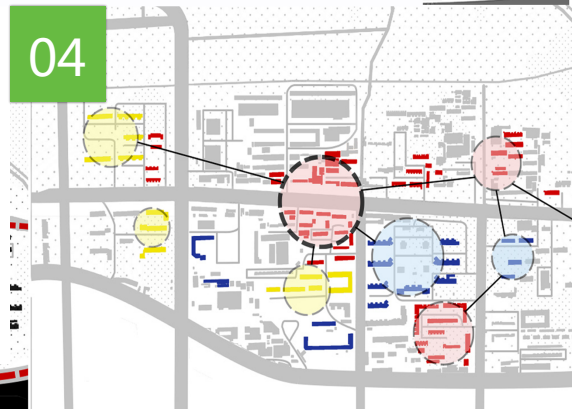
Problem Analysis

Background Analysis

Explicit regional location

Green and water analysis

Traffic flow analysis



Neighborhood type

Problem Analysis

Background Analysis

Conducted **interviews**, surveys, **testing**, brain storming, **field visit**…

Problem identification

Outside

1. Location next to the busy street: noise, pollution and safety risk.
2. Surrounding lacks public green spaces.
3. Heterogeneous population with different needs and interests.

Inside

1. Conflicts between traditional planting practice and modern living patterns.
2. Difficulties for external government body to foster change effectively.
3. Repurposing the public space requires compensation fees for citizens which currently use it.
4. Misuse of the area requires expensive cleaning efforts.

Solution - Urban Farming

Provide and Refine Solution

1

To public space privatization problem.

2

To the problem of noise, pollution and the lack of public green space.

3

Applicable to heterogeneous kinds of neighborhood.

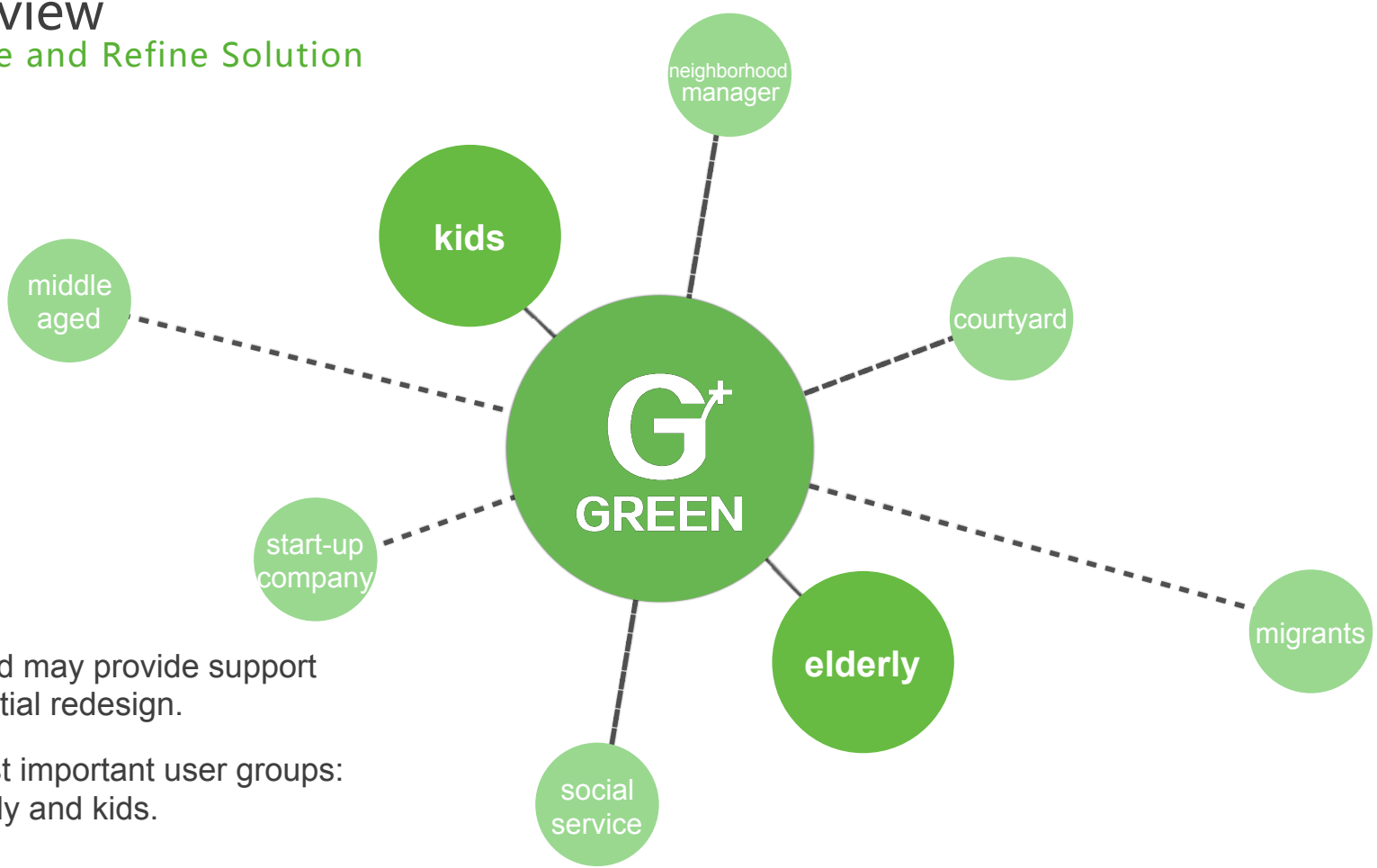
Survey

Provide and Refine Solution

1. Food acquisition was not the respondents' major pursue.
2. Less intensive and obligatory farming activity.
3.Clear distribution of rights and responsibilities.

Interview

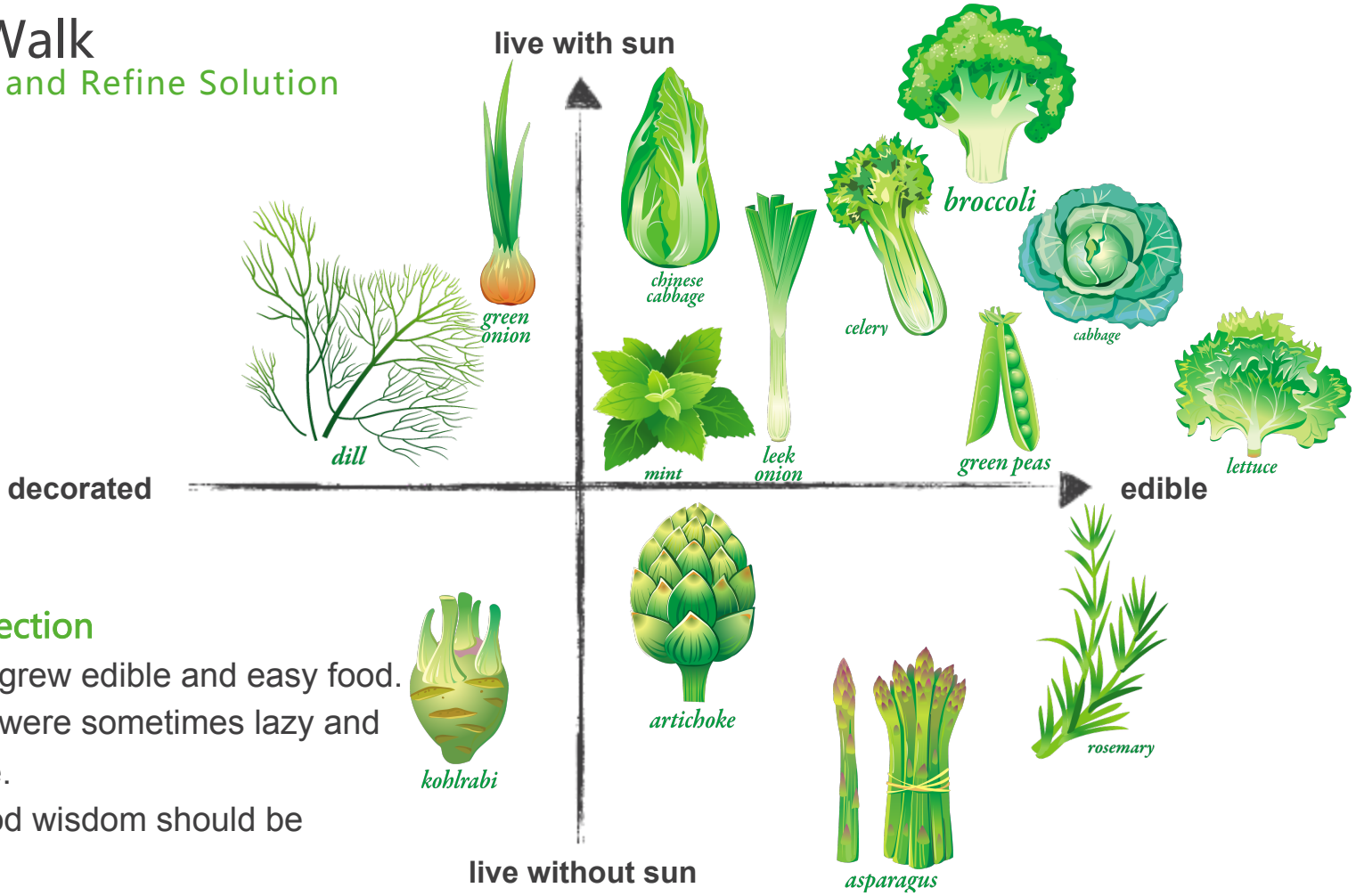
Provide and Refine Solution



- Courtyard may provide support for potential redesign.
- Two most important user groups: the elderly and kids.

Test Walk

Provide and Refine Solution

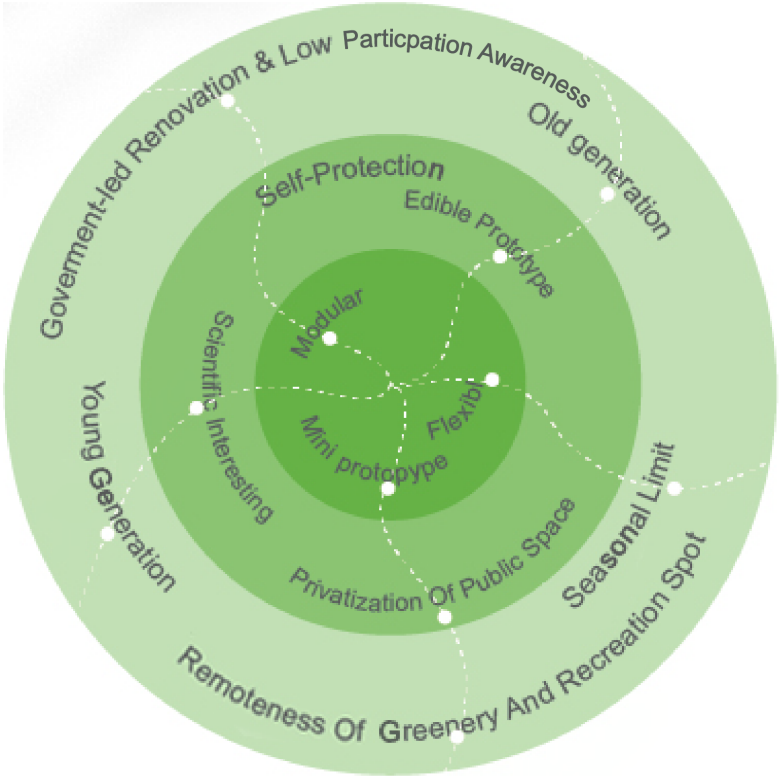


Vegetable selection

1. Households grew edible and easy food.
2. Households were sometimes lazy and irresponsible.
3. Neighborhood wisdom should be retained.

Summary

Provide and Refine Solution



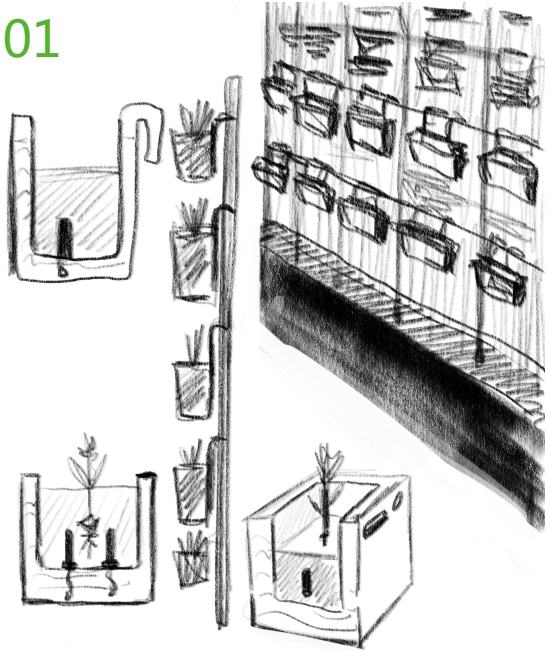
Touch point

- macro cause
- micro effect
- solution

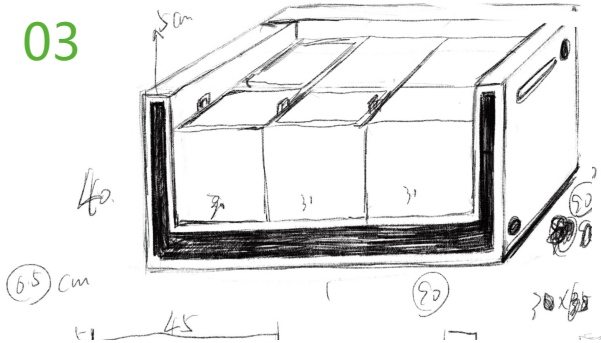
Integrate all the findings to ultimately develop our prototype……

Green+1.0
Prototype Development

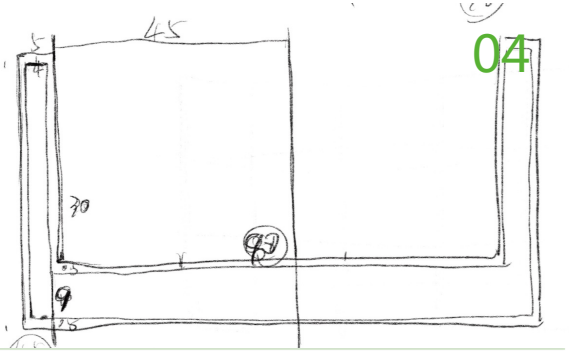
01



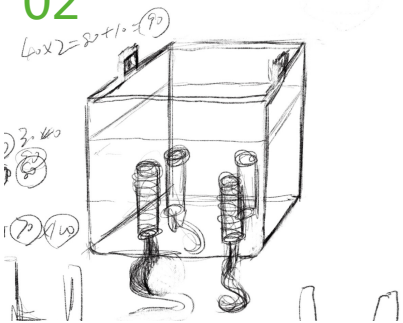
03



04



02



Test and chose between 3 principles:

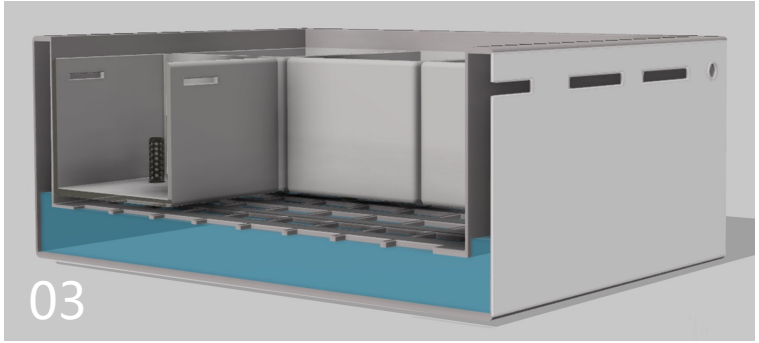
1. Water pump
2. Pressure: Static/ Dynamic
3. Automatic: **Capillary action**

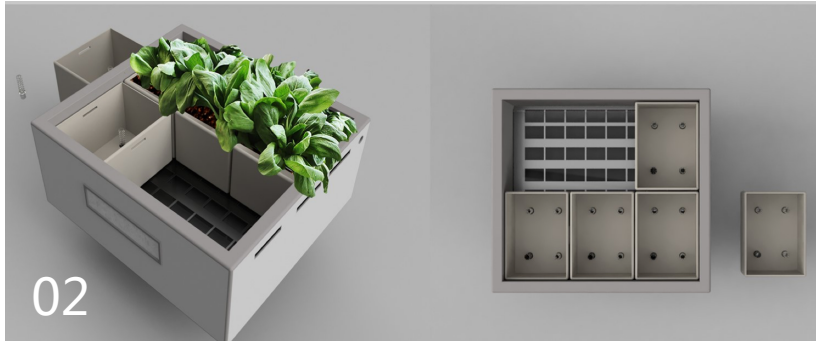
(1) Water supply adjusting
(2) Easy engineering
(3) Material saving

Green+1.0
Prototype Development

Convenient
through water reservoir, capillary & user manual.

Flexible
through easy assembly & multiple structure design.



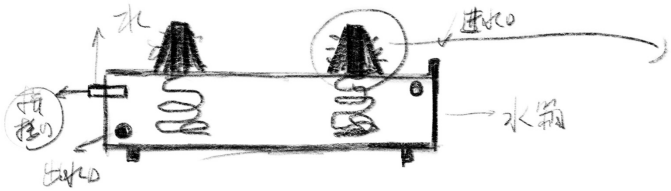


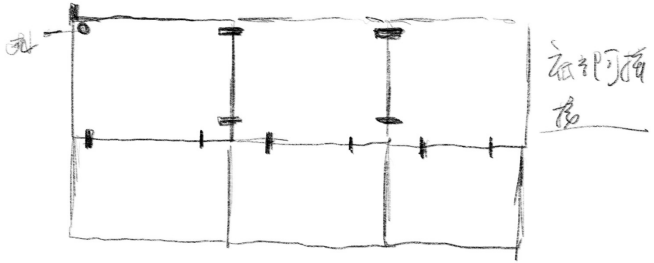
Modular
through 1-system-6-pots.

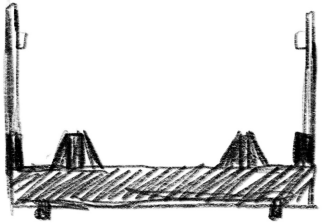
Smart
through filling level & watering reminder.

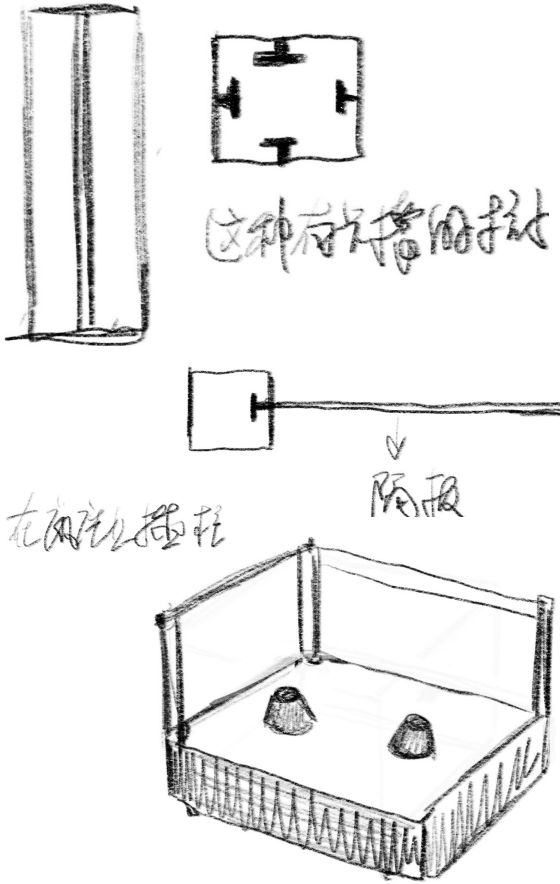
Green+2.0

Prototype Development



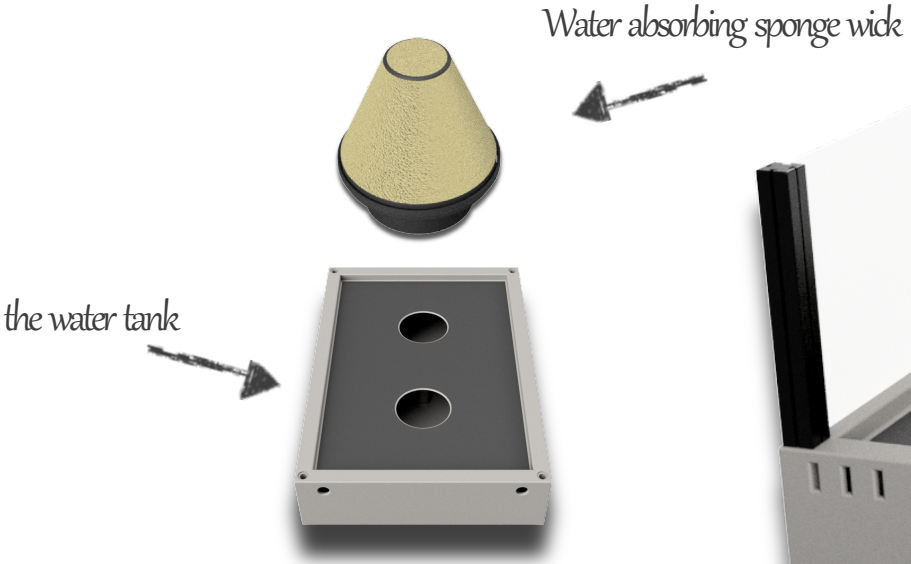


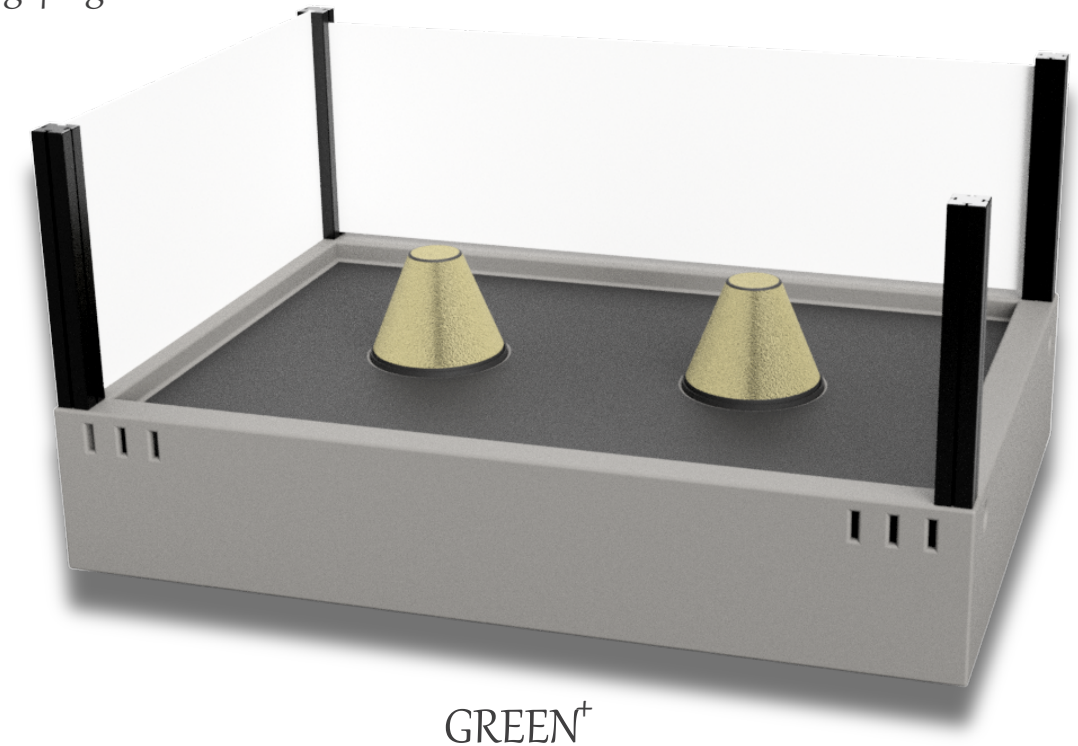




- brainstorm a draft prototype 2.0

Green+2.0
Prototype Development

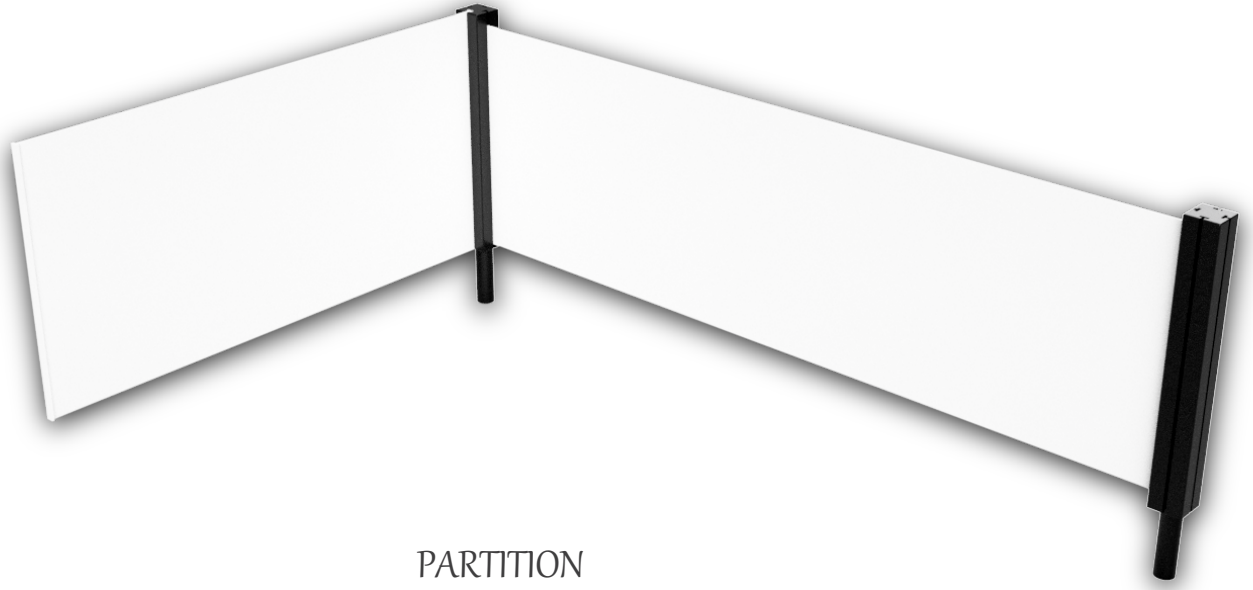




- **According to feedback, we develop Green+2.0 to:**

  Make it lighter and portable
  Save material
  Change the water wick

Green+2.0
Prototype Development

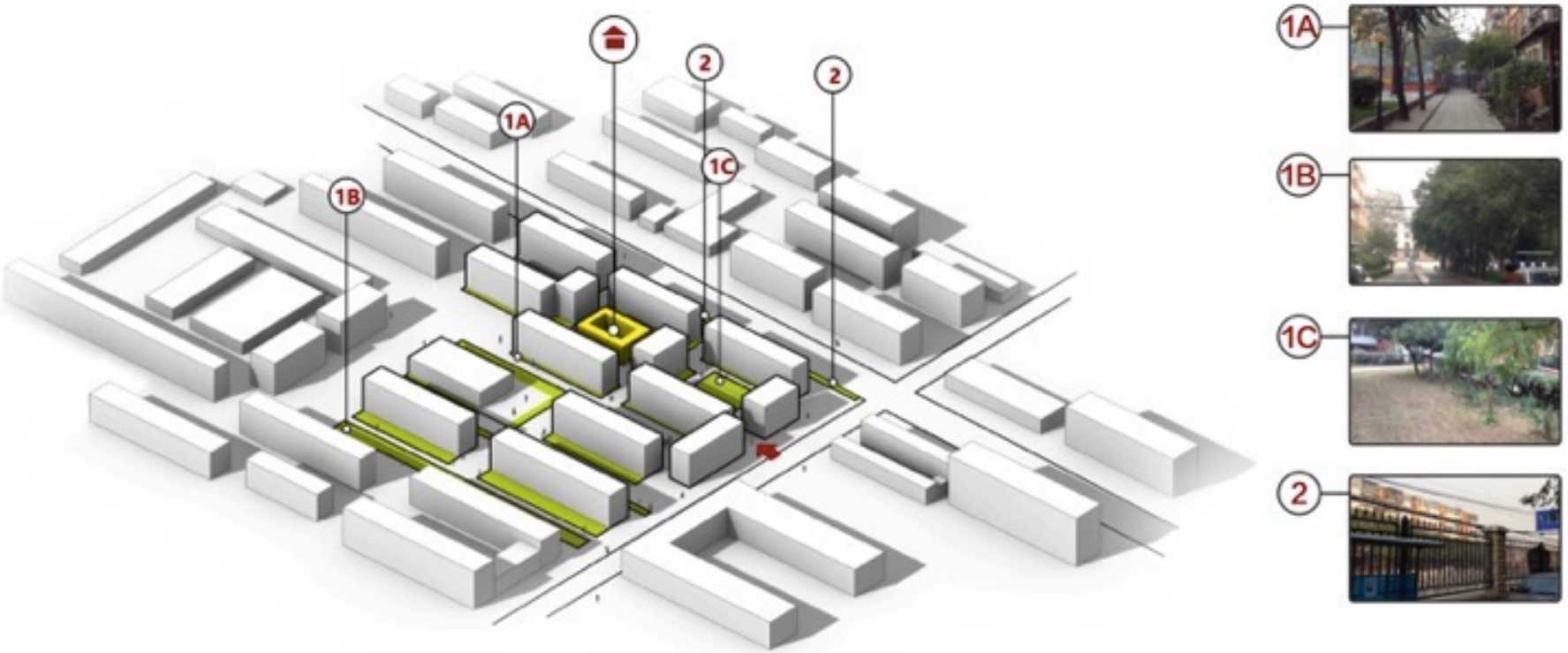


PARTITION

fluted column

Green+2.0

Prototype Development



Green+ Future
Reflection

Future Work

Operation problem
Water safety

Management problem
Property safety

Future Perspective

Sustainability:
Economic Vitality
Social Equity
Environment Quality
Cultural Continuity

THANK YOU