



Flourish

As an international student, after I purchased potted cilantro and small onions, the plants often died due to improper care because of the difficulty in precisely controlling temperature and humidity. This helplessness and regret became the initial driving force for the product design: how to reduce the uncertainty in care through technology, help users care for the plants easily, and establish an emotional connection with the plants.

Mind Maps & Sources of Inspiration

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Combination of nature and technology:

Inspired by smart home devices and pet apps, we create an intelligent 'support system' for plants through sensors and AI technology.

Anthropomorphic design:

Inspired by the 'pet dialogue' in pet apps, we give plants 'personality' characteristics to increase emotional communication.

Data-driven design:

Combined with the intuitive visualisation of data in the health app, the plant's care needs are transformed into concise health scores and real-time recommendations.

PACT

People

Target Users:

Beginners-Interested in keeping plants but lack professional knowledge. Urban white-collar workers-Busy at work and need a simple and convenient plant care solution.

Horticulture enthusiasts - have some experience in plant care and are willing to try smart tools.

International students-such as myself, need extra help to keep plants alive due to climate and environmental differences.

User characteristics:

Value ease of use and intuitiveness of products.

Prefer high value design, products need to be both practical and decorative. Sensitive to plant health and easily frustrated by plant deaths.

Activities

Main Activities:

Daily monitoring-Check the growth status of plants (e.g. humidity, temperature).

Manual Adjustment-According to the prompts to set the temperature and humidity control of the planter, watering frequency and other functions.

Daily watering-Even with automatic watering, some users may still be willing to participate manually.

Frequently Asked Questions:

Forgetting to water or over-watering causes plants to die. Not sure of the ideal environment the plant needs.

Context

Usage Scenario: Home environment-placed in the living room, bedroom, balcony, etc. Office environment-as decoration to enhance the comfort of the environment. Holiday or business trip scenarios: remote monitoring and management of plants to avoid unattended problems for a long time. Restrictions: Limited space-planter needs to be compactly designed but with strong functions.

Possible environmental disturbances - e.g. insufficient sunlight, direct airconditioning, etc. TechnologyCore Technology:Built-in sensors-soil moisture, light, temperature and humidity monitoring.Intelligent regulation-Humidification, fan, automatic watering, etc.Data transmission - connect APP via Bluetooth/Wi-Fi.Technical Challenge:Ensure sensor accuracy and device stability.Battery life or power supply design needs to meet the demand of long time operation.

User 1:

Basic Information

Name: Ivy Jiang Age: 24 Status: International student Living environment: Rental flat, limited space, indoor plants are mainly placed by the window or desk. Experience in keeping plants: Beginner, like plants but not good at maintaining them, easy to neglect daily care.

User Objectives

1. I hope plants can grow healthily indoors and add natural flavour to the living environment.

2. Learn some basic knowledge about plant care, but time is limited and not too complicated.

3. To establish an emotional connection with plants through the app to ease the loneliness of living in a different place.

User Pain Points

Forgetting to water or over-watering, resulting in poor plant condition.
Don't know how to judge the health status of plants, especially feel anxious when the leaves are yellowing or falling off.
With the change of season or indoor environment, the light and humidity needs of plants are often neglected.
Unable to take care of plants during holidays or business trips, and worrying that plants will die.

Desired Functions

- 1. Know the status of plants (e.g. humidity, health condition) at any time through APP.
- **2.** Get clear and concise care reminders, such as watering amount and time suggestions.
- 3. See the changes in plant growth with pictures or visual data.--

4. With anthropomorphic and interactive design, plants can 'feel alive' and 'talk to themselves'.

5. Manage plants remotely during holidays to reduce the risk of plant death.

User Research

User 2:

Basic Information

Name: Liam Carter

Age: 35

Status: Urban white-collar worker, product manager at a technology company

Living environment: Urban flat with a variety of plants (10+) on the balcony and indoors.

Experience in keeping plants: Intermediate, likes to try new plant species, has high requirements on plant health, but time is limited due to busy work schedule.

User Objectives

 To achieve efficient and intelligent plant management, especially when multiple plants are maintained at the same time.
To understand more about the growth pattern and needs of plants through the app, and to improve the maintenance efficiency.
Use technology to reduce the stress of maintenance and get more professional plant care advice.

User Pain Points

Due to busy work, it is easy to miss the plant maintenance time.
When caring for multiple plants, it is difficult to accurately grasp the different needs of each plant (e.g., watering amount and light).
Lack of instant feedback, sometimes the problem is only discovered when the plant's condition deteriorates.
Complex smart devices or apps may increase the burden rather than simplify the work.

Desired Features

 Support multiple plants management at the same time and provide personalised care advice for each plant.
Visualised plant health data (e.g. trend graphs) to help efficient decision making.

3. Generate intelligent plans based on plant growth data and environmental changes (e.g. season, weather).

4. Highly intuitive interface design for quick access to key information.

Low-fidelity Model





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eding time:

278 days (2024/2/23)

Plant Classification:

Humidity range: 30-50

Health Status: 90

Buddy



Simoon

Feeding: 137days

(Po)

Foliar mois

70.

Ficus elastica

0 Watering

Soil moisture

50.

Plant status score



Marker V

Comment



High-fidelity Model

introduction

Flourish is a smart plant management APP designed for plant lovers, aiming to help users easily care for plants and enhance the planting experience through technology and emotional design.

Whether you are a care novice or a plant expert, this APP can provide you with personalised advice, real-time monitoring and interesting interactions, making plant care a simple and enjoyable thing.

Applicable people

Plant novices: Help zeroexperienced users get started quickly and easily master plant care skills. Busy urbanites: Save time and improve efficiency through intelligent management.

Plant enthusiasts: Support simultaneous management of multiple plants, provide professional advice and in-depth analysis.

Interactive Flowchart

Main Functions

1. Plant health monitoring

Real-time access to the plant's soil moisture, leaf surface humidity, light intensity, temperature and other data.

Al analysis generates health scores to help users intuitively understand the growth status of plants.

2. Intelligent care recommendations

Based on the current state of the plant, provide personalised advice on watering, fertilising, pruning etc.

Automatically generate care plans and set up customised r eminders.

3. Growth Records and Data Visualisation

Capture every stage of plant growth, record photos and key data. Show changes in plant health and environmental data through trend graphs.

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4. Emotional Interactive Design

Give plants an anthropomorphic expression that

'communicates with the user' or 'expresses feelings'.

When the user completes a care task,

the plant will 'thank' or show 'happiness'.

5. Remote management and control

Through the connection between the smart planter and the APP, remote watering, temperature and humidity adjustment and other operations can be realised. Users can take care of their plants evenwhen they are on holiday or on a business trip.

6. Plant Scanning and Plant Shop

Scan unfamiliar plants and provide detailed plant encyclopaedic information to help users understand the care tips.

Users can buy different kinds of plants and various styles of smart flower pots in the shop that are compatible with the app.







Password

Log in ---->





Peperomia obtusifolia Kingdom Clade: Clade: Clade: Order: Family: Genus: Species Plantac Tracheophtes Angiosperms Magnoliids Piperales Piperaceae Peperomia P. obtusifolia

Peperomia obtusifolia, also known as the Peperomia obtusifolia, also known as the baby rubberplant, American rubber plant, or pepper face, is a species of flowering plant in the genus Peperonia under the family Piperaceae, native to Florida. Mexico and the Caribhean. The specific epithet obtasifolia means "blunt-leaved". The plant has gained the Royal Horticultural Society's Award of Garden Merit.



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Plants Shop xxxxx xx plant xxxxx xx plant

xxxxx xx pb





Buddy - 90 Monstera deliciosa

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278 days

2024/2/23

