HUMAN CENTRED DESIGN ENGINEERING

POURFECT

FOR THE PERFECT POUR

By Group 22

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Introduction ▼

Statistics

33% of adults ages 65+ consume the recommended amount of food

30% of seniors need more information and support to improve their eating habits and nutritional status

35 % of seniors want advice or direct help on how to improve their diet

65 % of seniors are more likely to be concerned with their diet, especially with health problems

PROBLEM AREA:

Sauce consumption is a significant issue as it can impact health. Sauces often contain high amounts of sugar, salt, and fat, which, when consumed in excess, can lead to health problems such as hypertension, obesity, and heart disease. Furthermore, some sauces contain preservatives and additives that may be harmful if consumed over a long period.

Therefore, it is crucial to regulate the intake of sauces and oils from a health standpoint.

We selected our target demographic from the senior population since they frequently experience health issues like heart disease and hypertension that call for careful nutritional management. It is essential that they limit their intake of oil and sauce in order to have a balanced diet and prevent worsening these conditions.

DESIGN BRIEF:

- Objective is to find a way to reduce the sauce intake while maintaining the people's regular habits of cooking.
- Designing a seasoning cup that can control the amount of sauce that is poured.
- Our aim is to ensure that older adults can consume healthy nutrients without adding additional burden.
- Provides cleanable solutions to ensure seasoning safety.

Mr.Lai & Mrs.Cheng

Basic Information

Age: 70's
Location: Local Chinese
Family status: Children lives near them
Growth background: Grown up in village

COOKING HABITS

- Like to eat traditional dishes.
- Shown strong interest in learning about health knowledge
- Strictly adhere to normal routine.

SHOPPING HABITS

- Grow their own vegetables
- Emphasize the intake of high-freshness vegetables
- Do not trust what is eaten outside

"I learned from TV that I should eat less than 5g of salt a day, but to be honestly I don't know how much salt is 5g, and I dont want to use a weighing scale each time."

"I might measure salt and oil by the teaspoon when I'm making a simple dish, but when the recipe gets complicated, I don't have the effort to measure every time."

Product Development

Process

User Research:
Prove that the problem exists and predict the approximate amount of sauce that the elderly will need. This leads to insights.

Insight & Specification
More information was obtained from discussions and interviews with designers and potential industrial users, such as chefs. These led to the Specification.

Prototyping

Lo-fi & Codesign:
First make the most basic lo-fi prototype, and then let the user (co-design) choose which product to move forward.

Works-like Prototype + Feedback:
A prototype with all the features in place, working with users to continually improve it.

Looks-like Prototype + Feedback:
Co-design the appearance of the product with designers and potential users to improve the user experience.

Electronic Prototype:
Design software to maximize the functional effects of the product.

Validation

Verify the user experience with the designers and users. Let the users to test if all the functions are satisfied and how do them think about the idea.

Verify the specifications obtained earlier to see if the current product meets the expectations at that time. Interview industrial users to see if our products meet their expectations.

User Research ▼

Nutritional statistics from Diary Studies

A diary study was conducted, and by analyzing the eating habits of two Chinese elderly families, the following observations were made:
- Chinese families are likely to ingest TOO MUCH SALT.
- For example, the dinner on the right contains a approximately 1555mg salt intake. However, suggested by The American Heart Association, no more than 1,500 mg of sodium per day is the standard for old people.

Concept Development

To prove the point and further develop our concept, we went to Hyde Park and interviewed 8 elderly people and asked them to measure the amount of oil they would use when stir-frying using measuring cups.

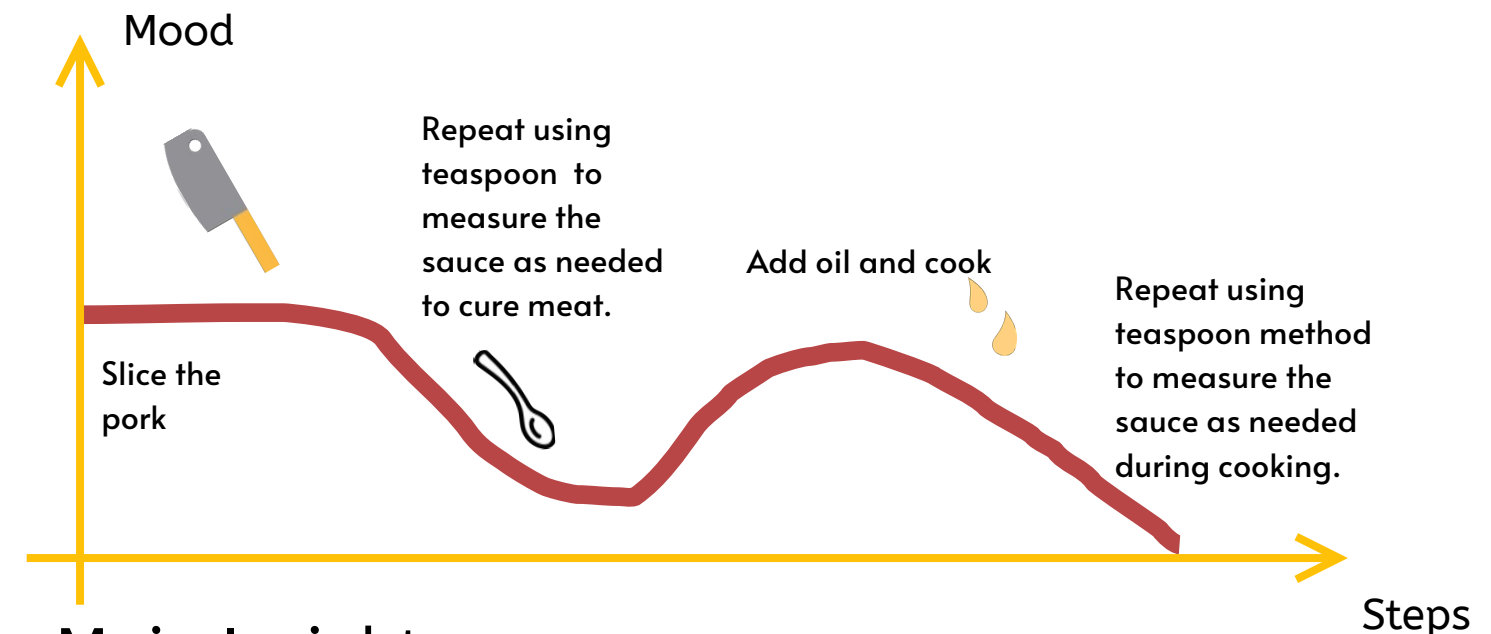Nearly all the subjects do not measure the quantity of oil they use, the prefer to 'eyeball' it.
- 1 uses a spray oil container
- 7 of them prefer to pour oil out of the bottle
- 2 people use around 20 ml of oil for 2 people
- 5 people use around 30ml of oil when making a dish 2 people
- 1 person uses 30+ ml

EXPERIMENTAL RESULTS: Not everyone can get an exact value of sauce.

Simulation of cooking *Fried Pork with Chili* with measuring teaspoon

Mood ↑

Slice the pork

Repeat using teaspoon to measure the sauce as needed to cure meat.

Add oil and cook

Repeat using teaspoon method to measure the sauce as needed during cooking.

Steps →

Main Insights

Generally, People are using too much oil to cook. The oil intake for cooking should not exceed 25-30g per day, where most of the participants used 30ml (27.6g) per dish.

Most of the percipitants would like to maintain the function of pouring, while this is their regular way of cooking of using oil and sauce.

Users exhibit contradictory behavior. While they aim to use less oil and sodium for better health, they often neglect these concerns when cooking. For personal convenience, they typically don't have the time or energy to measure the exact amounts needed each time they use a sauce.

HMW:

How Might We make cooking and preparing food easier for the elderly to make them receive a scientifically balanced diet with safer conditions and enjoy their meals more?

Insight & Specification ▼

SOURCE

CODESIGN WITH DESIGNERS

We discussed with fellow designers what users might need and sorted out the corresponding opinions.
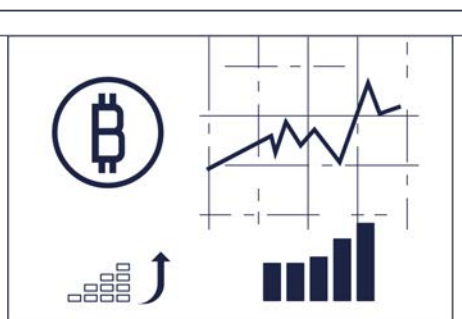
RESEARCH

Some research has been done to analyze the possible impact of the product from multiple aspects.

USER INTERVIEW

We contact users or industrial manufacturers who may be involved in the industry to discuss the specifications that may be needed.

INSIGHTS

CONVENIENT: Saving users' time in cooking, indicating a fast and efficient solution.
AFFORDABLE: Priced reasonably to cater to economically disadvantaged groups and the elderly.
USER-FRIENDLY: Easy to use, with a focus on minimizing the learning curve for new users.

POLLUTION: A big source of pollution comes from discarded kitchen utensils. According to a report by the United Nations Environment Programme (UNEP) [1], global municipal solid waste generation is projected to increase from 2.1 billion tonnes in 2023 to 3.8 billion tonnes by 2050.

HEALTH: Chefs asked for productst that had a long lifespan and could withstand the extremes of the kitchen environment.
QUOTES: "In a kitchen environment, I felt the design of the sauce bottles made them too difficult to clean, so I had to replace them."

BASIC NEEDS: The product should control the volume of the sauce precisely and provide users with a clear indication of how much sauce they have used. Additionally, it should address multiple user needs effectively.
QUOTES: ""I need a product that can precisely control the amount of sauce I use and show me exactly how much I've dispensed."

SPECIFICATION

○ The product should save users a significant amount of cooking time.

○ The product's cost should be within £10 so that the elderly or economically disadvantaged groups are more willing to purchase it.

○ The product should have an intuitive usage pattern, allowing users to avoid high learning costs.

○ The materials used should be environmentally friendly and stable.

○ The product should be very durable, able to resist aging and contamination by kitchen grease.

○ The product should be easy to clean, giving users peace of mind.

○ The product should allow users to clearly perceive the amount of sauce they are using.

○ The product should be compatible with multiple user groups.

Lofi - Prototype

SQUEEZE BOTTLE:

The concept of the squeeze bottle is that the outside is made of several soft tubes (since it is more difficult to squeeze more tubes so the users would tend to ues less sauce). The inside of the soft tube is a hard tube to limit the maximum amount that the user can squeeze out. The user squeezes the bottle continuously to get the corresponding sauce.


PUSH BOTTLE:

The basic concept of the push bottle is similar to that of hand sanitizer. When the user presses the pump, he pushes the one-way valve pump to get the corresponding sauce through the hose. After pressing, the sauce will be pumped out from the middle of the top bottle cap.

ROTATIONAL BOTTLE:

The core design of this bottle is a vacuum peristaltic pump. There is a rising sealing ring at the bottom, which will move upwards atomaticlly due to the air pressure, and the peristaltic pump is driven by the rotation of the shaft at the top, so as to extract liquid to the top bottle cap, and the sauce flows out of the bottle cap.

Codesign Session
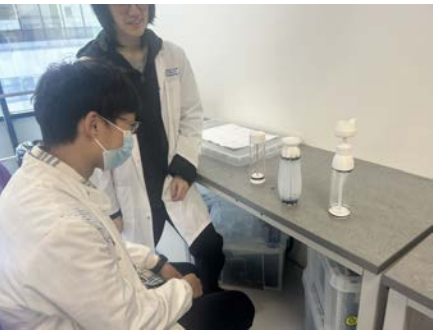
We communicate with several Deseng students to choose the direction of product development.

Several students were invited to try all three bottles. They were asked to try the bottles and make comments on which would be more suitable for older people and for themselves.

COMMENTS ON SQUEEZE BOTTLE:

"'I think this squeeze bottle can really give me a very novel experience, and it looks good, but I don't think the elderly have the energy to squeeze it every time to get the sauce. At the same time, there are too many sealing points at the bottom, which makes it easy to leak. "

COMMENTS ON PUSH BOTTLE:

"'Although the push bottle seems to be very efficient, it can easily stain my hands and the seasoning. And I don't know if it can work for some viscous liquids. The bottle seems too high and looks very easy to fall off."

COMMENTS ON ROTATIONAL BOTTLE:

'The Rotational Bottle seems to be able to solve all the problems of liquid sauces, and it can unify the output volume. The vacuum design is also very good, and there is no need to use a straw, which solves the problem of cleaning."

Users Prefer: ROTATIONAL BOTTLE

Improvements Based On Feedback

① It is reported that a lot of force was needed to turn the axis to pump the liquid, and suggested that the elderly would not be able to apply that amount of force.

② The bottle cap solution needs to be optimized to prevent the liquid from spilling

③ Users are curious whether the amount is too small at one time, and how much is usually needed for users to cook at one time?

① Possible solutions:
- Add an electronic control system
- Use gears to reduce the force applied by the user.
- Better handling

② The design of the lid is updated

③ The table on the right shows the daily nutritional values compiled by the Hong Kong government [2]. The product will be designed based on this standard. A standard design that has emerged is "teaspoon", which is 5ml. Therefore, 5ml will become the value of one output.

SUBSTANCE	SUGGESTED DAILY INTAKE
FAT/OIL	15~30% of total energy intake, oil should not exceed 25~30g (6-7 teaspoon)
SALT	Less than 2000mg per day
SUGAR	10% of total energy intake less than 50g

Electronics Design ▼

Through the codesign of the previous stage, we realized that in order to make it convenient for users to operate the product, it is necessary to use a motor drive so that users can pick it up and use it at any time.

INTIAL GOAL:

- The product's interactive design should be intuitive and require almost no learning cost for users.
- There should be multiple layers of testing and feedback to improve the entire system

DESIGN

BASIC CONTROL:

The implementation method is to use a Mega 2560, two 28BYJ-48 stepper motors and two knobs, and the wiring is shown in the figure. After programming, every time the knob rotates 180 degrees, it will notify the stepper motor to rotate one circle, which is 1024 steps.

UX DESIGN:

In order to inform the user that the motor has finished outputting, an additional LED light for each motor is added to inform the user.
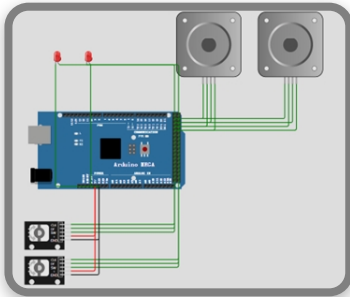
FEEDBACK

The accuracy of the knob rotation is worrying because it is easily affected by electromagnetic interference. Addtionly, it is suggested by the tester that rotating takes too much time during cooking.

QUOTES: "I found that sometimes the product worked fine, and sometimes there is no output. Also it takes too much time on tuning the knob. "

IMPROVEMENT

Instead of rotating the knob, the function is changed to press the knob. Now pressing the knob down will make the motor rotate half revolution (2.5ml/0.5tsp).

DESIGN

OUTPUT BY DISH:

The function of the product can be further expanded. One concept is that after entering the recipe, the product can automatically extract the required sauces according to the order and light up one by one.

PROGRAM DESIGN:

Encapsulate the motor parameters into a structure, and call the function according to the recipe to achieve the purpose of sequential output.

FEEDBACK

The product has a low fault tolerance rate. If the user puts the ingredients in the wrong order after use, the product will output the wrong sauce next time.
QUOTES: "Last time he outputed the soy sauce and vinegar in the wrong order and the whole dish was ruined."

IMPROVEMENT

NFC will be introduced with a chip at the bottom of each bottle, allowing the motor to identify which sauce it controls. The code must be optimized to convert all motors into addresses, making motor control based on addresses instead of serial numbers.
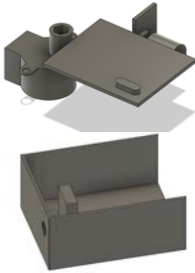
```
13:21:31.134 -> 67                          3:21:42.090 -> Card1 detecting
13:21:31.168 -> The motor of output12       3:21:42.090 -> 243
13:21:31.399 -> Card1 detecting             3:21:42.136 -> The motor of output21
13:21:31.399 -> 67                          3:21:42.323 -> Card1 detecting
13:21:31.446 -> The motor of output12       3:21:42.323 -> 243
13:21:31.631 -> Card1 detecting             3:21:42.368 -> The motor of output21
13:21:31.631 -> 67                          3:21:42.548 -> Card1 detecting
13:21:31.709 -> The motor of output12       3:21:42.548 -> 243
                                            3:21:42.633 -> The motor of output21
```

DESIGN

BASE DESIGN:

The design of the base consists of a motor, an NFC identifier and a knob, and their arrangement is shown in the left picture.

FEEDBACK

The size of the motor was complained to be too large, with users thinking it would look bulky and unsightly in their kitchens.
QUOTES: "The size of the base is actually 8cm by 10cm! It's so inconvenient to place it in the kitchen. It really doesn't look good."

IMPROVEMENT

[3]
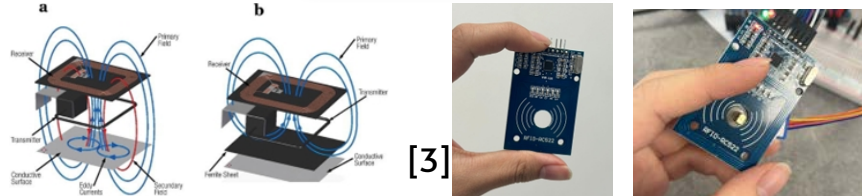
After researching NFC technology, I realized it only transmits information via coils, meaning the internal space of the coil isn't needed. Therefore, it is decided to drill a hole to make the motor passing through to reduce the overall size of the base. Additionally, we need to ensure the stepper motor's electromagnetic field doesn't interfere with the NFC detector's output, which we have confirmed through code testing. The reduced size is shown below.

Designed by Yuanxi, this new base has a good look and leaves enough space for the wires to connect to the mega2560.

Physics Improvement

QUOTES: "I don't think the electronic control system will work every time, and I would prefer a more physical way to use it. Is there an alternative way of working?"

IMPROVEMENT

GEAR SPANNER

One solution we came up with was to use a gear spanner to twist the gear below. This solution actually converted the behavior originally required by the stepper motor into manual operation.
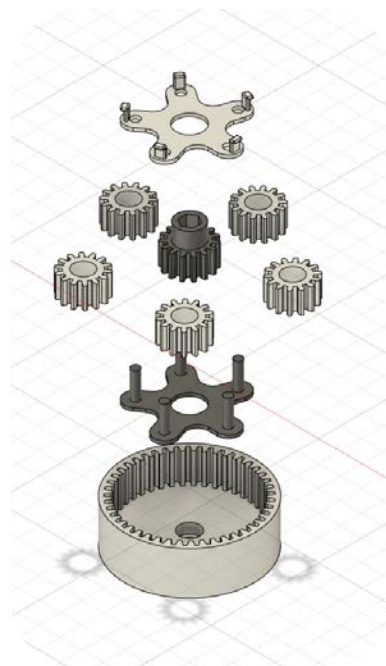
FEEDBACK

QUOTES: "I find this one very difficult to use. It requires too much cycles to rotate everytime and it use to much force."

IMPROVEMENT

PLANETARY GEARS

Taking into account the user's physical experience, Yuanxi designed a planetary gear with long arm to increase the rotation speed, so it can achieve higher efficiency. In this way, users can more easily get the amount of sauce they want.

Further Actions

It may be possible to design a crank to improve the rotation experience, while allowing users to control the output of the sauce more conveniently and clearly.

GPT Recipie

FEEDBACK

QUOTES: "The size of the base is actually 8cm by 10cm! It's so inconvenient to place it in the kitchen. It really doesn't look good."

IMPROVEMENT

In order to allow users to have more extensive input, for example, if the dish the user wants to make is not in the data set, the code cannot find a suitable solution to make this dish. I used the OpenAI API to call ChatGPT 4o to output an ideal solution. This code will output the recipe of the dish the user wants to make that has been optimized for health, as well as the amount of seasoning that can be quantified as the motor output.

```
import openai
import re

# Set your OpenAI API key here
openai.api_key = "sk-proj-j6TGViEEEwwhPR5SUBTvT3BlbkFJg5fJYJRwcafkPtcXT9Pg"

def get_dish_info(dish):
    # Function to get the recipe and sauce information from GPT-3
    prompt = f"""
    You are a nutritional assistant. A user wants to know the healthiest sauce combination for the dish "{dish}".
    1. Provide the detailed recipe for the dish including all ingredients and steps.
    2. List all required sauces and the required volume of each sauce in the recipe, and ensure all measurements a

    Please output the results in the following format:

    Recipe:
    [Recipe details]

    Sauces:
    [Sauce 1] - [volume in ml]
    [Sauce 2] - [volume in ml]
    ...

    """

    response = openai.Completion.create(
        engine="gpt-3.5-turbo-instruct",
        prompt=prompt,
        max_tokens=500,
        temperature=0.5
    )
```

```
Recipe:
Chicken Teriyaki

    Ingredients:
    - 1 pound chicken breast
    - 1/4 cup soy sauce
    - 1/4 cup honey
    - 1 tablespoon rice vinegar
    - 1 clove garlic, minced
    - 1/4 teaspoon ginger, minced
    - 1/4 cup water
    - 2 tablespoons cornstarch
    - 2 tablespoons vegetable oil
    - Salt and pepper to taste
    - Sesame seeds and green onions for garnish
```

Further Actions

The future development direction is to combine this python algorithm with software so that users can use a mobile app to control the sauces of all recipes.
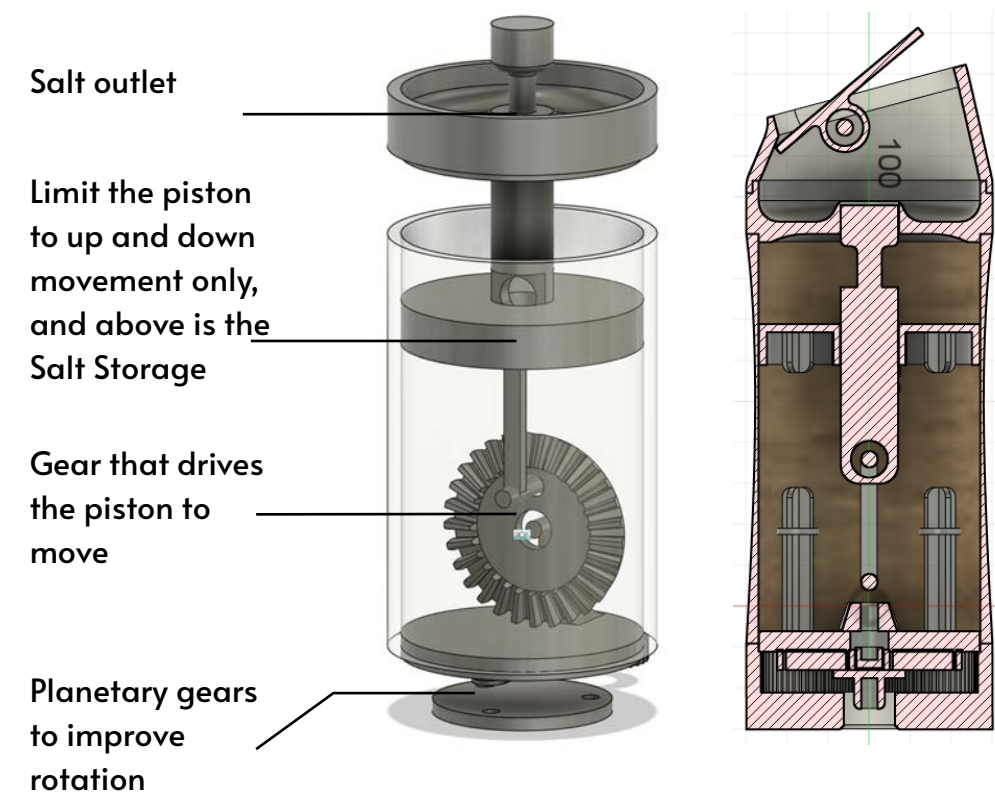
Dealing with Solids

FEEDBACK

QUOTES: "I think having only liquid sauce is a bit monotonous. Can you design a version that can use solid substances, like salt?"

IMPROVEMENT

According to user feedback, users asked for an additional solid bottle. Because in the kitchen, there are more than just sauces, and a cooking step usually requires the combination of many different elements, so Yuanxi designed the following products. Salt outlet is the most basic output port, which can output a fixed amount of salt each time. A cover is used to limit the output port to purify the multi-directional force into a force perpendicular to the ground, and limits the salt to go down and damage the gears.Below is a gear that drives the shaft up and down, and a set of planetary gears to amplify the torque.

Salt outlet

Limit the piston to up and down movement only, and above is the Salt Storage

Gear that drives the piston to move

Planetary gears to improve rotation

Looks-Like Prototype ▼

Through the codesign of the previous stage, we realized that in order to make it convenient for users to operate the product, it is necessary to use a motor drive so that users can pick it up and use it at any time.

INTIAL GOAL:

- While ensuring user safety, upgrade its appearance to make the product even better.
- Involve users and designers in the product development process as much as possible to satisfy their opinions.

LOOKS - LIKE PROTOTYPE CODESIGN

WITH DESIGNERS:
Name: Max

Background: CSM International Student, Expected First Class

WITH DESIGNERS:
Name: Fernando

Background: Designer for Imperial Formula Racing and Motorsport Club

Aesthetic Design

FEEDBACK

QUOTES: *"I want a more minimalist design, is there a way to hide the mechanism?"*

IMPROVEMENT

Considering that some users want to cover the outer surface of the product to reduce the mechanical appearance elements of the product, we designed an uneven grip design for the product while considering anti-slip factors.

FEEDBACK

Solution 1   Solution 2   Solution 3   Public Voting:

1   2   3

Max chose the second solution because he thought wood was warmer than stainless steel and that it would give elderly users a better touch experience. In addition, wood was better at handling oil stains than stainless steel. However, Fernando choose the first solution, as he loves the mechanism design.
Although Option I has a high selection rate, considering that some people still like hidden mechanical designs, the appearance of the wooden structure is retained.

Handling Experience

FEEDBACK

QUOTES: *"The smooth design may lead to accidents. Can some anti-slip measures be designed?"*

IMPROVEMENT

Based on the user's needs for the handle, we designed three possible anti-slip solutions. The first is a handle, similar to the design of a mug. The second is a curve that converges inwards. This allows users to put their hands in the thinner middle, while the thicker ends prevent users from slipping. The third is an inward-carved thread to increase friction.
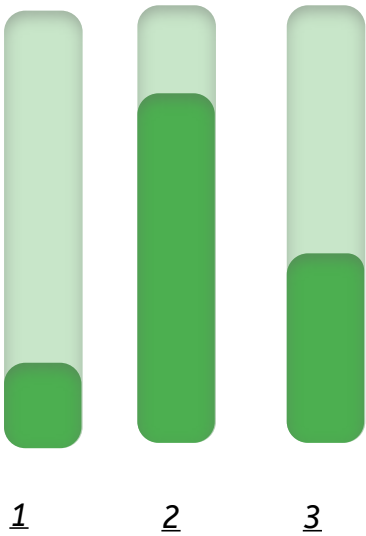

Solution 1   Solution 2   Solution 3   Public Voting:

1   2   3

FEEDBACK

Both designers chose the second solution in this part. Because they think this solution takes into account both beauty and practicality. However, the first design is too clumsy and will take up too much volume in the kitchen, while the third design has many grooves. In the kitchen, grooves usually become places where grease accumulates, making it extremely difficult to clean. At the same time, in the public vote, the second solution also stood out.

Digital Prototype ▼

We made an app which provides a simple and easy way to monitor and control the quantity of sauces, oils, and other liquids used in cooking, helping users to better manage the amount of liquids they consume. The app is divided into six sections, each of which has a distinct purpose to improve user experience and encourage healthy cooking habits, shown below.
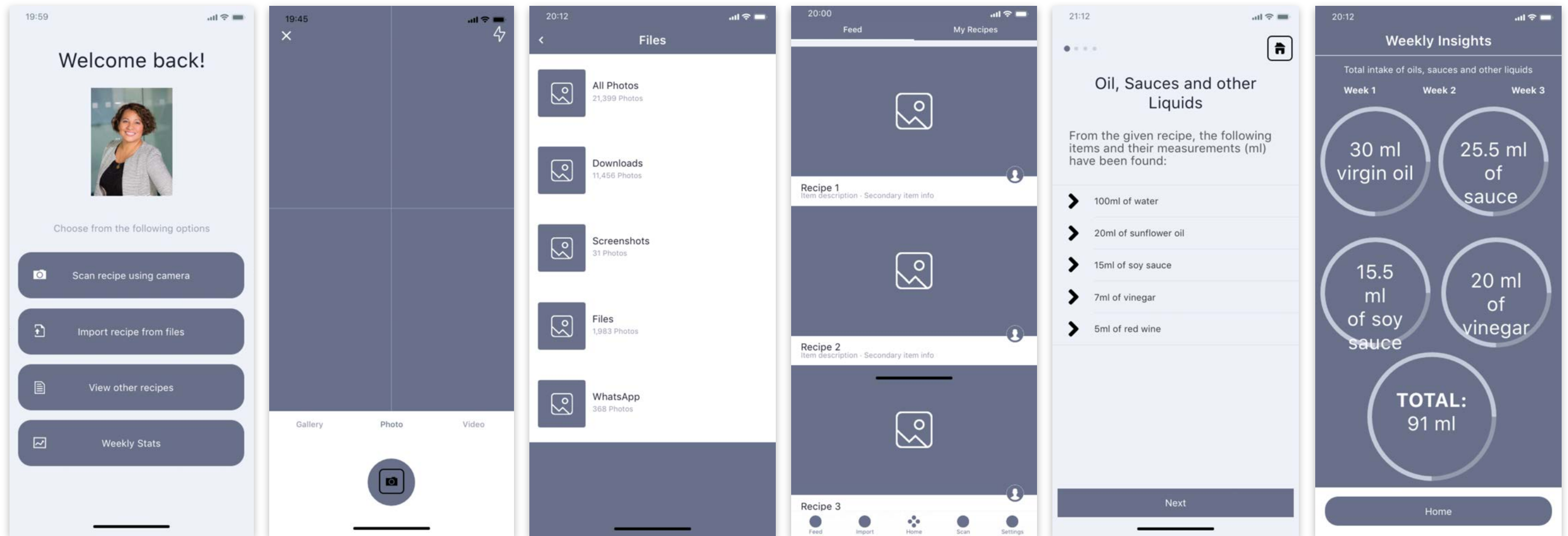
Home Screen
With its clear and uncomplicated interface, the home screen welcomes users and acts as the app's entry point. There are four primary buttons on it: one to capture a photo of a physical recipe; another to import recipe files from their phone; a third to browse a public recipe feed; and a fourth to view their weekly liquid intake. This page makes sure that users may access each function with ease.

Camera
With this attribute, users are able to take a photo of a recipe from almost any tangible source, such a book, paper, or another form of hard copy. The app processes the picture to retrieve pertinent data regarding the amounts of liquid ingredients. This enables users to precisely gauge and regulate how much sauce they consume without changing how they typically prepare.

Import from Files
Users are able to upload digital recipes that are saved on their phone, including ones that they have shared with friends or obtained from websites. Because of this functionality, users can easily include the app into their daily culinary routines since it minimises the need for entering data manually. In order to detect and measure liquid ingredients, the app analyses these recipes.

Import Recipes from Feed
This option gives users exposure to a public feed of recipes that other users have made available, which is helpful for people looking for culinary inspiration. Users may learn new recipes by scrolling through these and using the app to monitor and regulate how much liquid substances they use, keeping it within healthy bounds.

Identified Liquids in Recipe
The application searches the selected recipe for any liquid items that are listed after it has been imported or recorded. The user is then presented with a clear overview of all of these ingredients together with their respective proportions on their screen, which aids in efficient management of their sauce and oil usage.

Weekly Liquid Intake Statistics
The app keeps track of how much liquid is consumed by the user in a variety of recipes and aggregates this information into a weekly report. This function gives them information about their total intake and indicates areas where they might need to increase or decrease their intake of certain liquids. It encourages a better diet by assisting consumers in making knowledgeable judgements about their culinary practices.
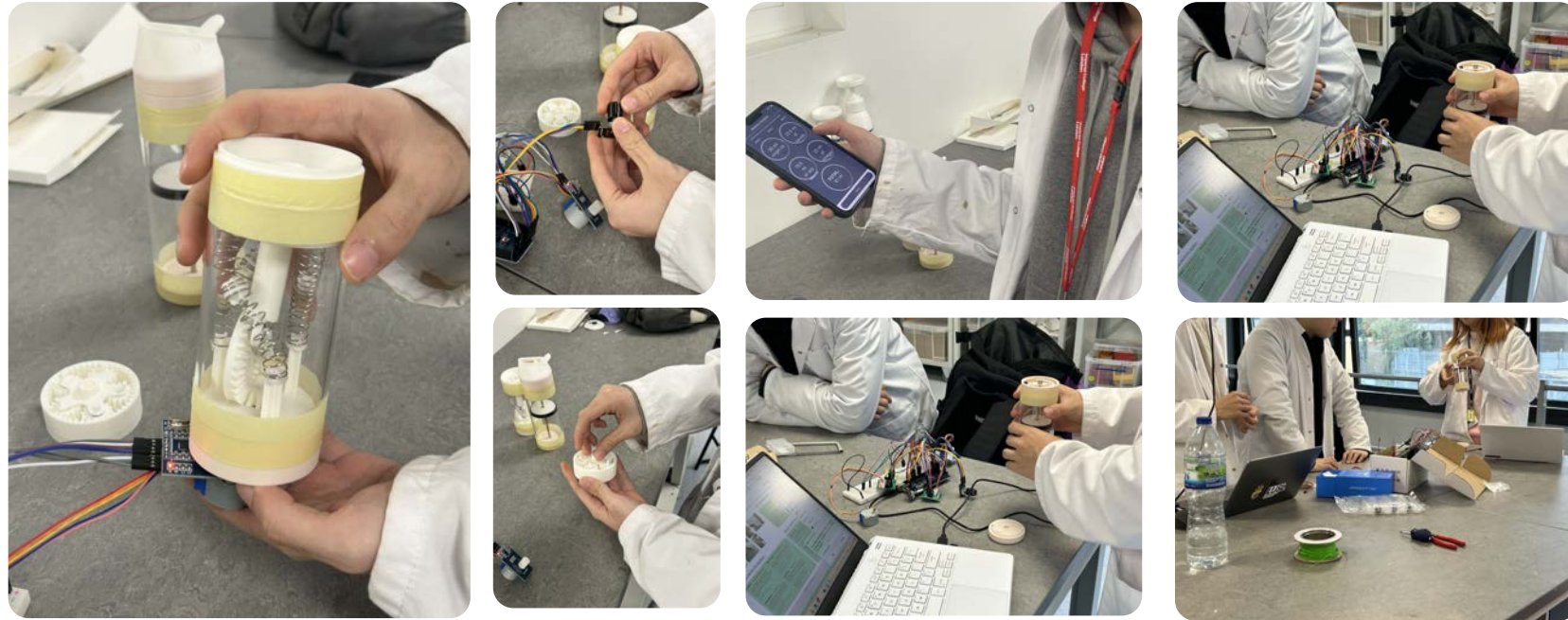
POURFECT

FOR THE PERFECT POUR
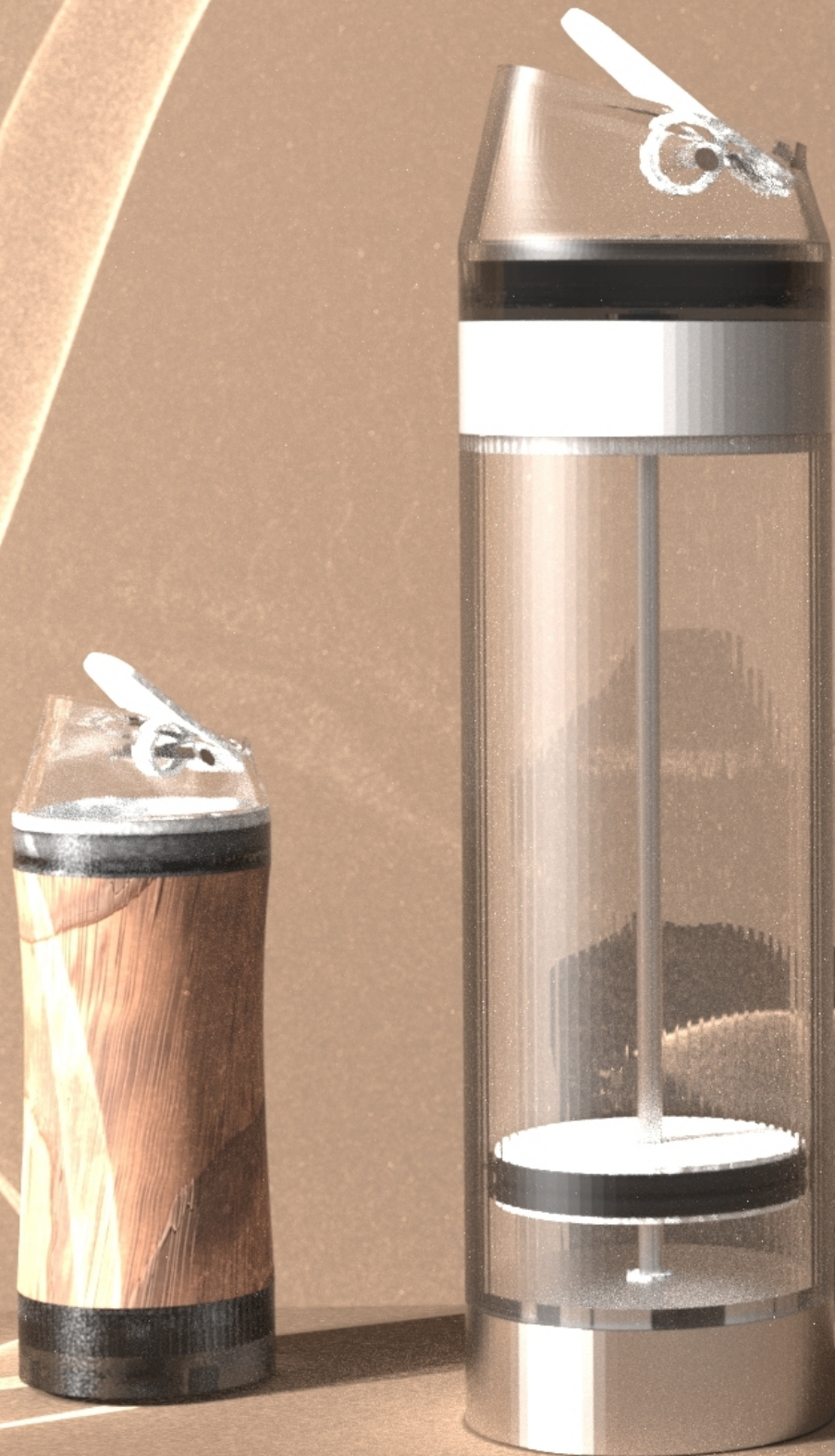
Concept Validation I ▼

USER VALIDATION

TEST METHODOLOGY

- Let users explore without showing how to use it
- Validate if the prototype can work well
- Validate if the prototype can show high quality in durability
- Validate if the user likes the prototype's appearance
- Show the users the discription of the digitial prototype and see if they can work out.
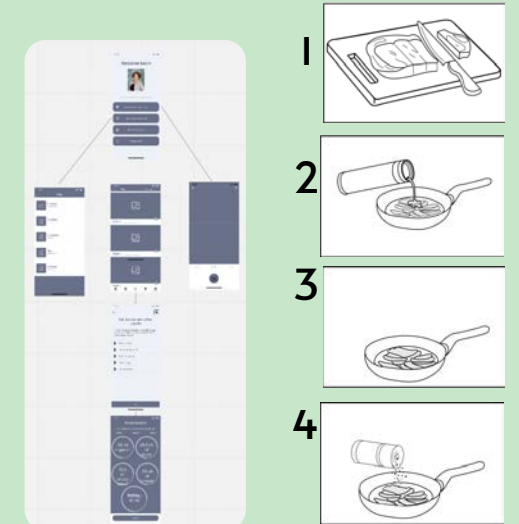
PHYSICAL PROTOTYPE FEEDBACK

STABILITY   NEED IMPROVEMENT:5/18

The users succeeded 5 times out of 18 tests. After investigation, all the problems came from the tolerance of the 3D-printed custom parts. Therefore, this problem should be solved after standard production.

"Why its not working?"
"The gears seem to be spinning."

INTELLIGIBILITY   VALIDATED: 5/6

Users can easily understand how to use this product. Among the 6 users who participated in the feedback, 5 expressed that they could use this product without any additional instructions.

"This design is very intuitive"
I really don't need to read the instructions to know how to use it.

PRACTICALITY   NEED IMPROVEMENT:3/6

Half of the users expressed doubts about the practicality, including doubts about the ability of wood processing grease and the convenience of changing sauces.

"Changing the sauce seems very troublesome."
"I was afraid that wood would absorb grease in the kitchen and make my hands sticky, but the design using PMMA is very good."

AESTHETICS   VALIDATED: 6/6

Users liked that the design took both appearances into consideration. All users who participated in the test had a positive attitude towards the appearance.

"I really like this design that leaves the appearance to the user to choose."
"The mechanical structure of the product is very beautiful."

DIGITAL PROTOTYPE FEEDBACK

INTELLIGIBILITY   NEED IMPROVEMENT:2/6

The software's operating instructions are very cumbersome. All four users expressed that they did not want to read the instructions, but they were able to understand the software's intentions through self-exploration. Only 2 users out of 6 showed positve feedback.

"I'm not sure if I understand the intentions of this app."
"The design of this software is outdated."

OPERABILITY   VALIDATED: 6/6

The software concept is highly praised. Users like this plan that can be preset in advance to match the product. At the same time, all users expressed surprise that large model AI is used to be compatible with all recipes on the market.

"I am very surprised that you can actually use AI to integrate all recipes, and you code that out."

Concept Validation II ▼

VALIDATION

60% of time is saved. Estimated time when pouring with a teaspoon is 5s, while using our product is 2s, 3s saved.

£3 cost estimated. Using only simple shapes and gears, it is easy to control costs by achieving mass production.

Positive Feedback. *QUOTES: "I didn't need any tutorials to figure out how to use it"*

Optimized. The materials are considered during the appearence session, where both wood and PMMA are environmentally friendly materials.

Optimized. These issues were taken into consideration during codesign, and PMMA and wood were finally chosen .

Considered. A self-cleaning mode has been added to the circuit to clean the pipes.

Positive Feedback. Users' perception of the sauce increased significantly compared to when using teaspoon.

Positive Feedback. Interviews show the elderly, fitness people, special groups and hospitals are all interested in using this product.

The product should save users a significant amount of cooking time.

The product's cost should be within £10 so that the elderly or economically disadvantaged groups are more willing to purchase it.

The product should have an intuitive usage pattern, allowing users to avoid high learning costs.

The materials used should be environmentally friendly and stable.

The product should be very durable, able to resist aging and contamination by kitchen

The product should be easy to clean, giving users peace of mind.

The product should allow users to clearly perceive the amount of sauce they are using.

The product should be compatible with multiple user groups.
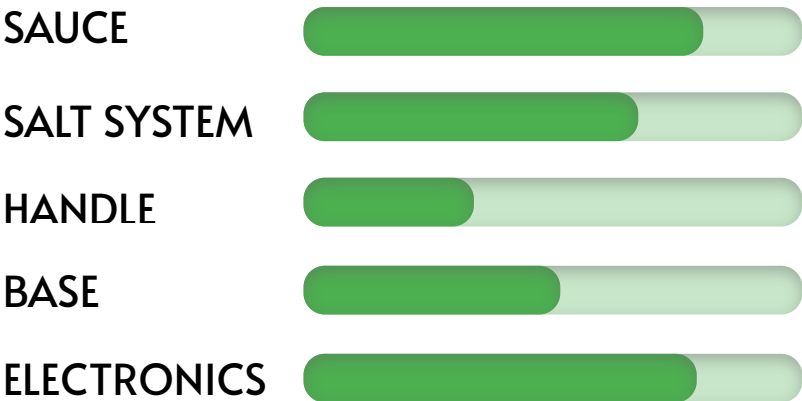
INDUSTRY FEEDBACK

Name: Dr. Yao

Background: Nurse in Shanghai East Hospital for **over 40 years.**

QUOTES: ""As a nurse for 40 years, I find this product incredibly useful. It precisely controls sauce volume and clearly shows the amount used, which is perfect for ensuring consistent and accurate meal preparation in a hospital setting. Its versatility makes it a great addition to any kitchen."
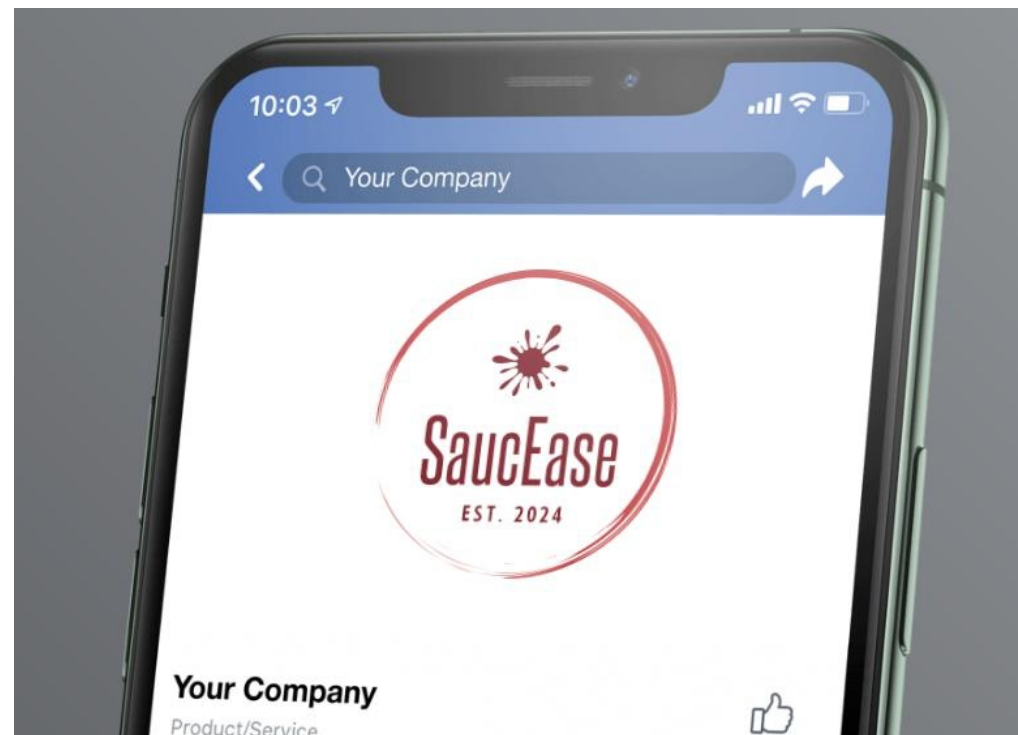
USER SATISFACTION:

SAUCE

SALT SYSTEM

HANDLE

BASE
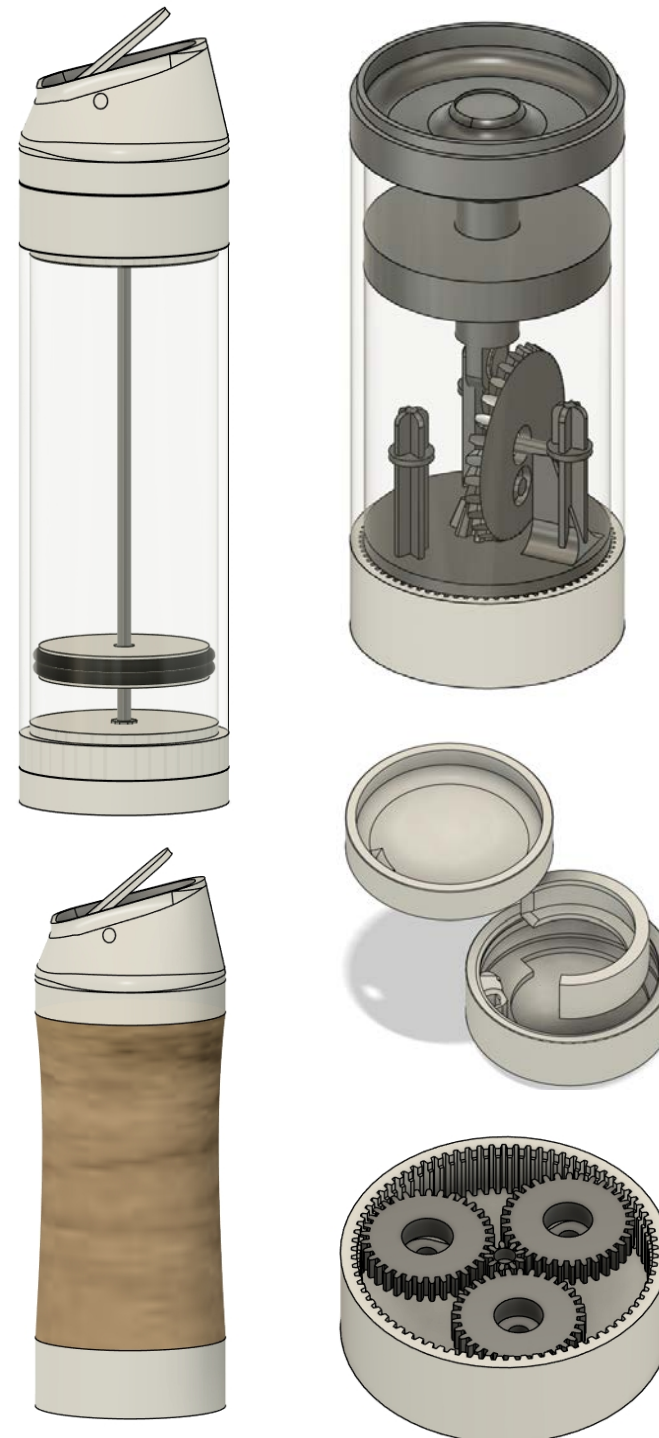
ELECTRONICS

Appendix ▼

BRANDING AND LOGO

INITIAL LOGO

FINAL LOGO

CAD DESIGN

MEETING MINUTES:
https://aluminum-canvas-702.notion.site/Group-22-Summer-Minutes-ec105315bc0c4ec89d8a50299dd349ca?pvs=4

REFERENCES

[1]https://www.unep.org/resources/global-waste-management-o utlook-2024#:~:text=With%2 0municipal%2 0waste%20set%20to,Environment%2 0Programme%2 0(UNEP)%20report.

[2]https://www.intechopen.com/chapters/75600

[3]https://www.chp.gov.hk/en/static/90037.html

LINK TO ACCESS OTHER MEDIAS

https://drive.google.com/drive/folders/1E7fatUnVgq SVnUBIi6ke6wC3N2Km_9Jk?usp=sharing
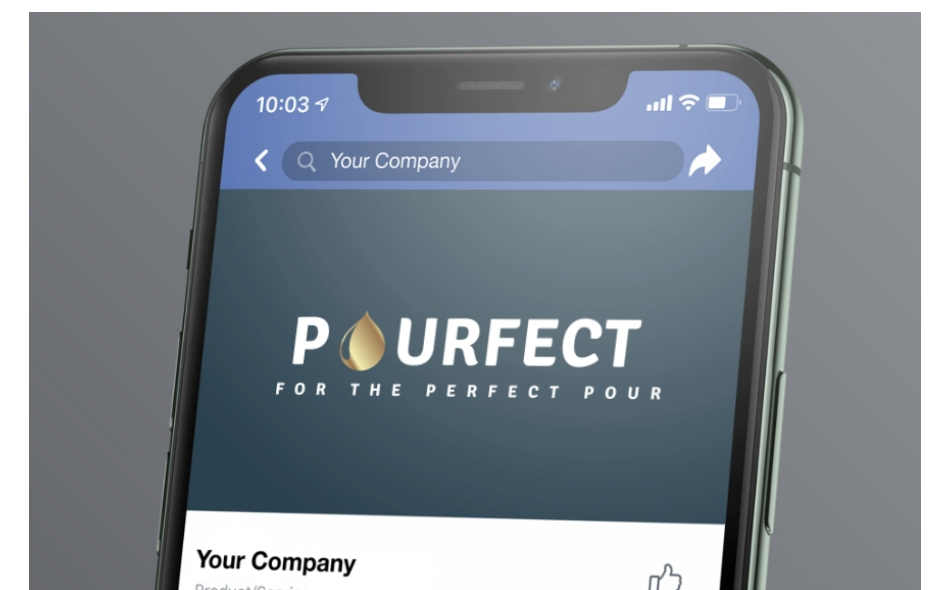
How the App Is Useful

The app's integration with the seasoning cup guarantees accurate control over the quantity of liquid poured, which is consistent with the design brief's goal of minimising sauce consumption. With the app's capabilities to scan recipes, import files, and monitor liquid intake, users can easily manage their diets with all the tools they need. The weekly statistics feature makes it simpler for senior citizens to keep a balanced diet by providing insightful feedback that promotes healthy cooking practices. All things considered, the app improves the seasoning cup's functioning, making it a vital tool for those trying to cut back on sauce while still enjoying their favourite foods.