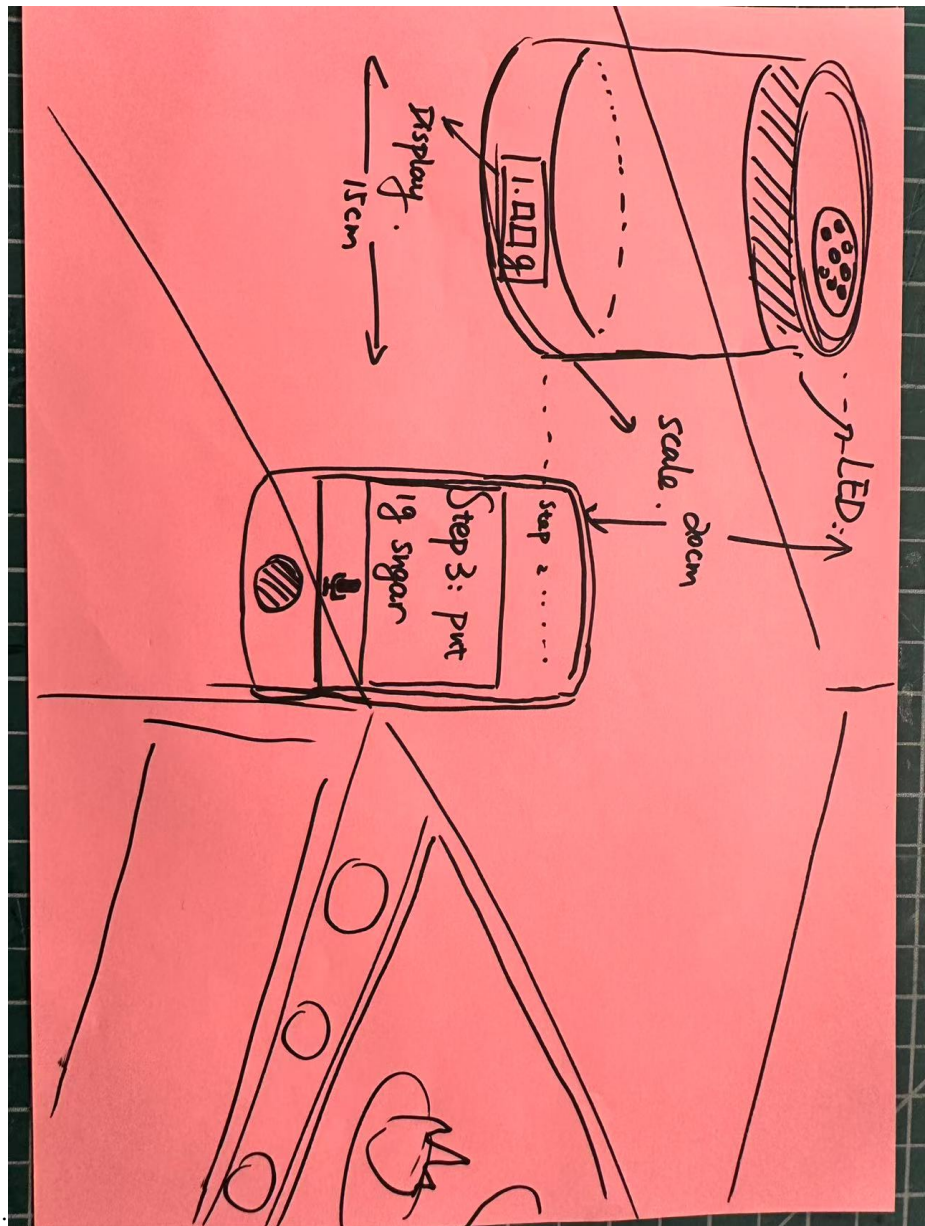


Magic-Seasoning

Introduction The Smart Cooking System integrates a mobile app with smart seasoning jars that feature built-in scales to simplify cooking. Users manually input the weight of ingredients into the app, which calculates the required seasoning amounts. The jars guide users by lighting up and dispensing precise quantities. Progress is updated on the app and synced with the jars, ensuring an intuitive and seamless cooking experience.

Features

1. Mobile App as a Control Hub:
 2. Choose recipes and input ingredient weights manually.
 3. View progress updates as you cook.
4. Smart Seasoning Jars:
 5. Integrated scales for precise seasoning measurement.
 6. LED indicators to guide usage.
 7. Wireless communication with the app.
8. Bidirectional Communication:
 1. The app sends calculated seasoning requirements to the jars.
 2. The jars update the app once dispensing is complete.



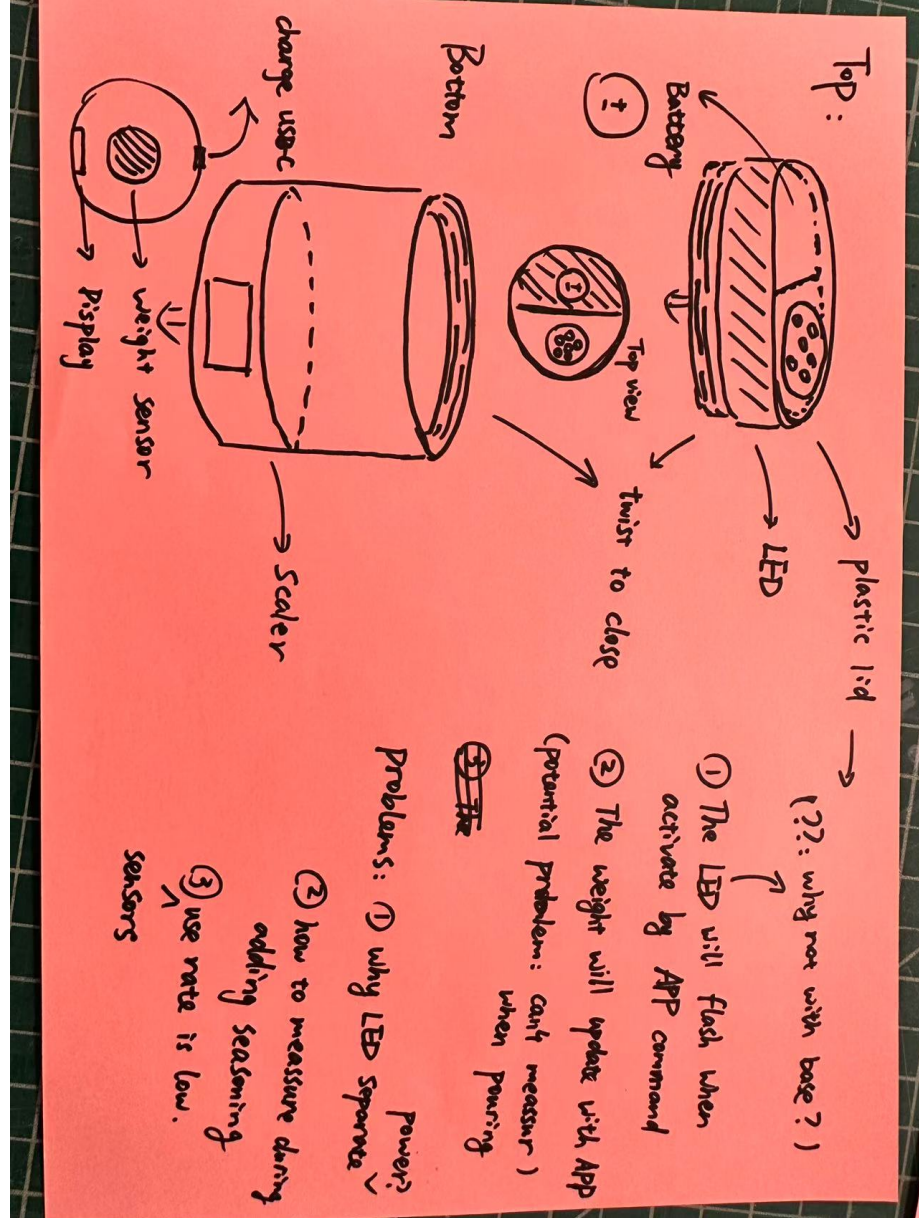
General Look:

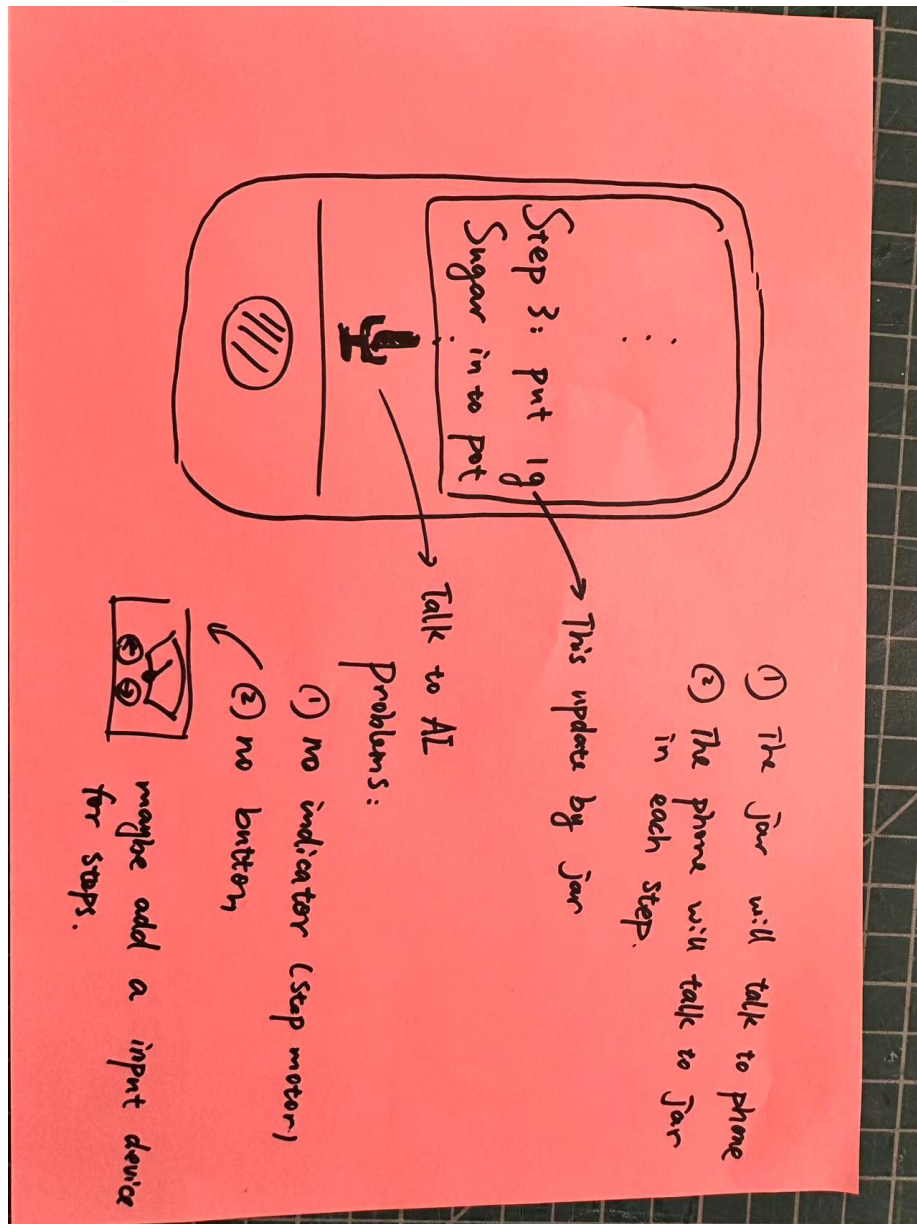
System Design

Smart Seasoning Jar Each jar is designed to weigh and dispense seasoning while communicating progress to the app.

Key Features: 1. Integrated scale for measuring seasoning output. 2. LED

light for guidance. 3. Wireless communication (e.g., Bluetooth/Wi-Fi). Sketch:





Workflow

User Input: 1. Select a recipe in the app. 2. Manually input the weight of the main ingredients. Calculation: 1. The app calculates the required seasoning for each jar. Guidance: 1. Jars light up to indicate which seasoning to use and how

much to dispense. Progress Update: 1. Jars notify the app after each step is completed.

System Communication

Communication Workflow App to Jar: Recipe details and calculated seasoning amounts are sent to the jars. Jar to App: Jars update the app with dispensing progress in real time. Diagram:

Detailed Data Flow Step 1: User selects a recipe in the app and inputs the weight of the ingredients. Step 2: The app calculates seasoning proportions and sends the instructions to the jars. Step 3: Jars guide the user by lighting up and dispensing seasoning. Dispensing progress is sent back to the app.

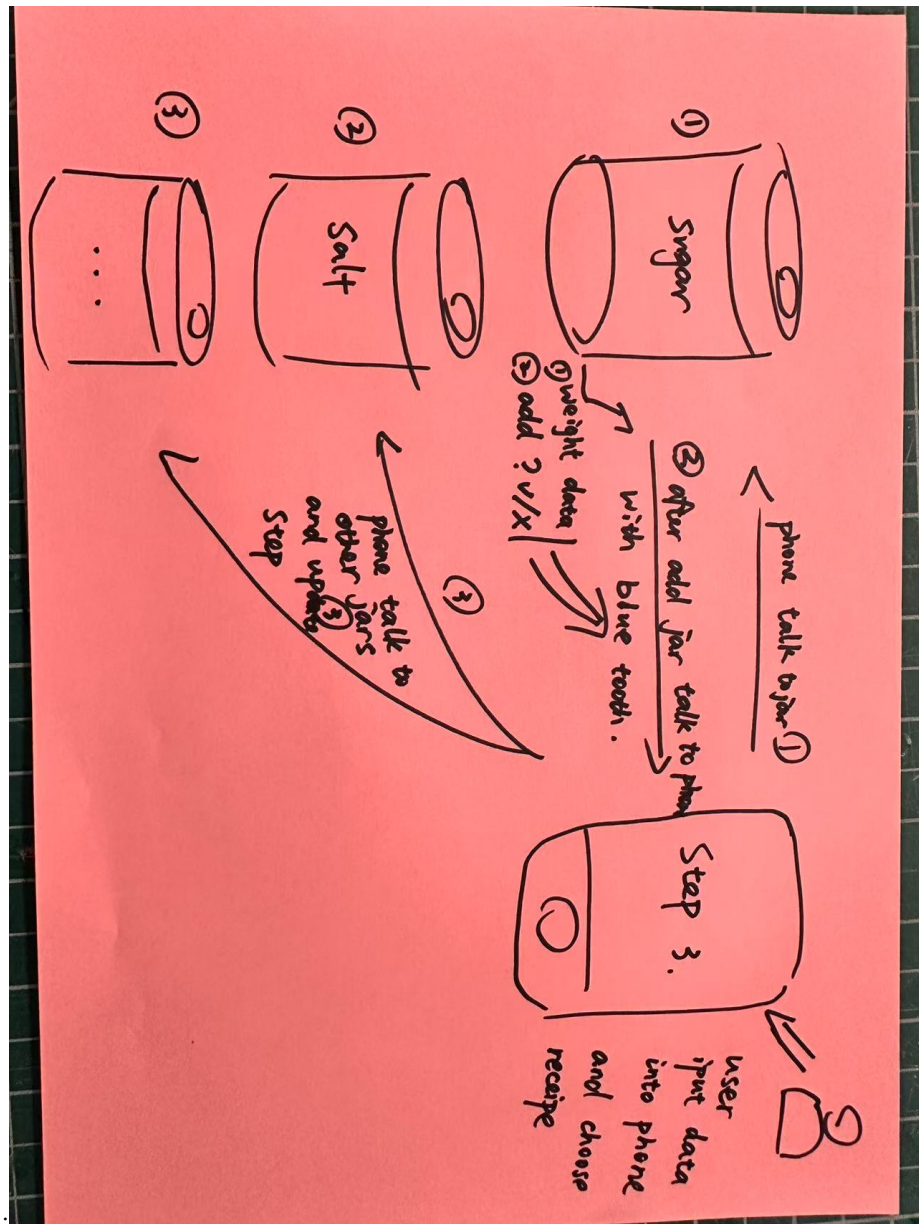


Diagram:

Sensors and Hardware Components

Sensors Load Cell (Weight Sensor):

Used to measure the weight of the dispensed seasoning. Communicates data to the internal microcontroller. Example: HX711 ADC module for weight data

precision. Datasheet: [HX711 Datasheet](#)

LED Indicators:

Provides visual feedback to users on which jar to use and how much to dispense.
Example: [WS2812 RGB LED](#). Datasheet: [WS2812 LED Datasheet](#)

Wireless Communication Module:

Ensures communication between jars and the mobile app. Example: [ESP32](#) or [ESP8266](#) for Bluetooth/Wi-Fi connectivity. Datasheet: [ESP32 Datasheet](#)

Power Management:

Powers the jars and sensors. Example: Rechargeable Li-Po battery with charging module (e.g., [TP4056](#)). Datasheet: [TP4056 Datasheet](#)