

COMPUTER ENGINEERING 2025



# Cookies crafter

BY : BESAN JADALLAH  
LANA JAARA

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HARDWARE PROJECT

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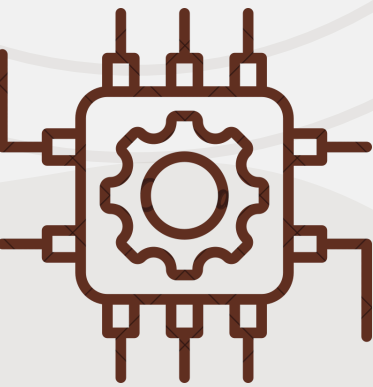
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# introduction

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## Problem

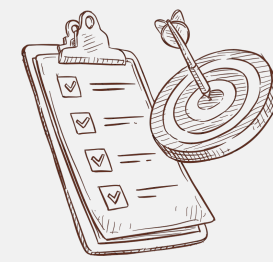
The traditional cookie manufacturing process requires a lot of manual labor, leading to time and effort consumption, along with difficulty in maintaining consistent size and shape. Additionally, energy and resource consumption can be inefficient in some operations.



## Solution

The project offers an automated machine that efficiently mixes, kneads, shapes, and bakes cookies with precision. Controlled by an intelligent system, it ensures consistent quality while minimizing energy consumption and waste. This solution reduces labor, saves time, and enhances overall efficiency and cost-effectiveness.





# objective

The goal of the project is to enhance efficiency and productivity by automating the cookie production process, reducing labor costs, and promoting sustainability through waste and energy reduction. It introduces innovation by integrating technology into daily life, boosting the food sector's production, and supporting automation in small industries. Additionally, it offers innovative solutions for households by speeding up cookie preparation and increasing product variety.





# Features

The key features :



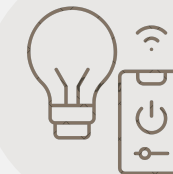
## Complete Automation

Automatically mixes, kneads, shapes, and bakes cookies.



## Ease of Use

Simple interface and easy maintenance.



## Smart Control

Efficient programming for accurate operation.



## Sustainability

Minimizes waste and improves product quality.



## Precision Manufacturing

Ensures consistent size, shape, and quality.



## Energy Efficiency

Reduces energy consumption.



# Process

The process starts by capturing customer input to ensure smooth order processing.

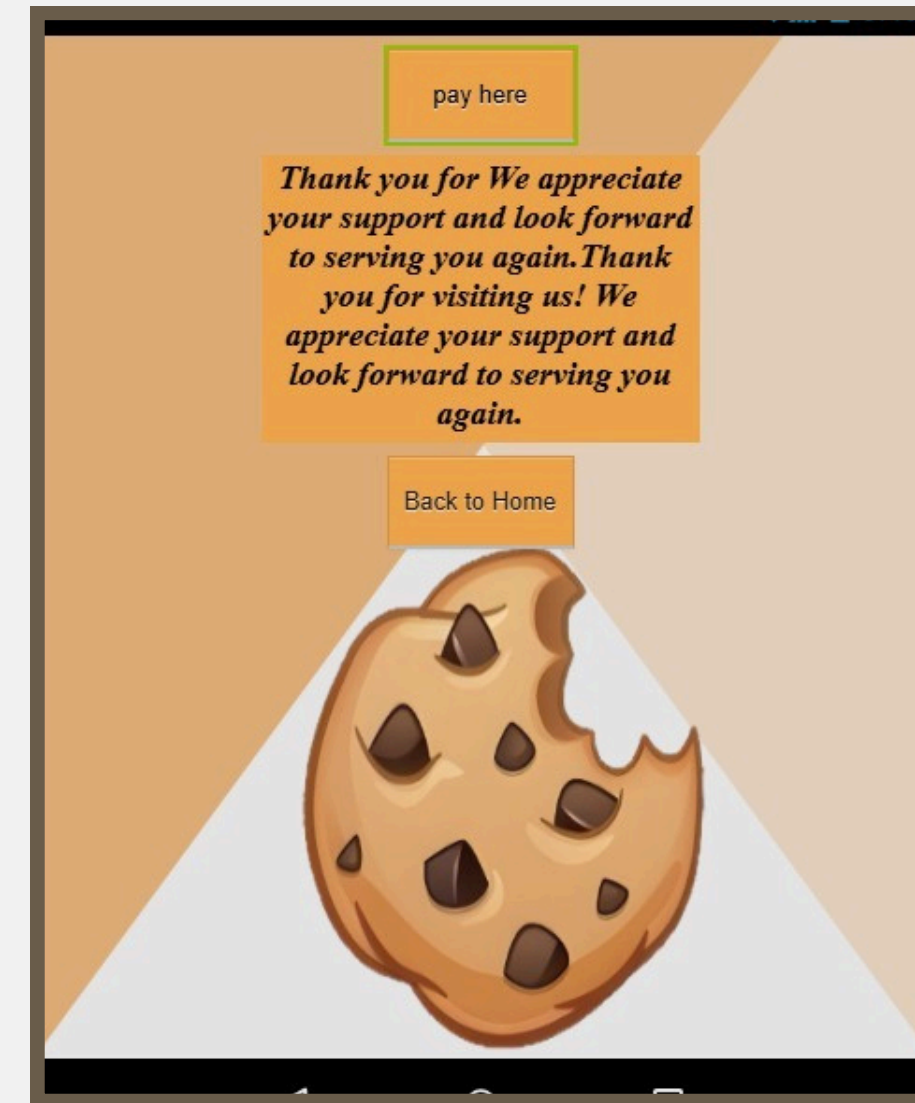
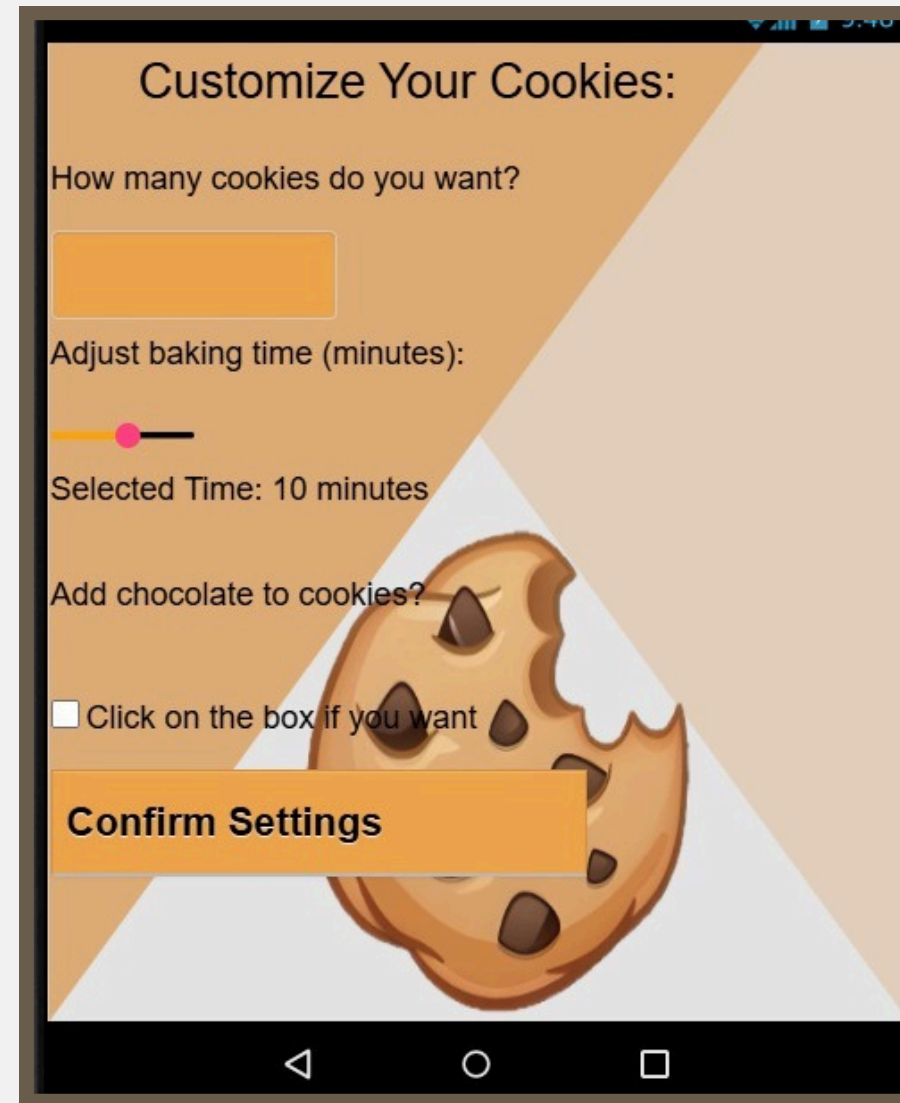




# Process

COOKIES CRAFTER

The mobile app can be used as an alternative to the keyboard and RFID.





# Process

Next, we add the ingredients into the mixer.

## Dry ingredients



Flour



Baking Soda



Sugar

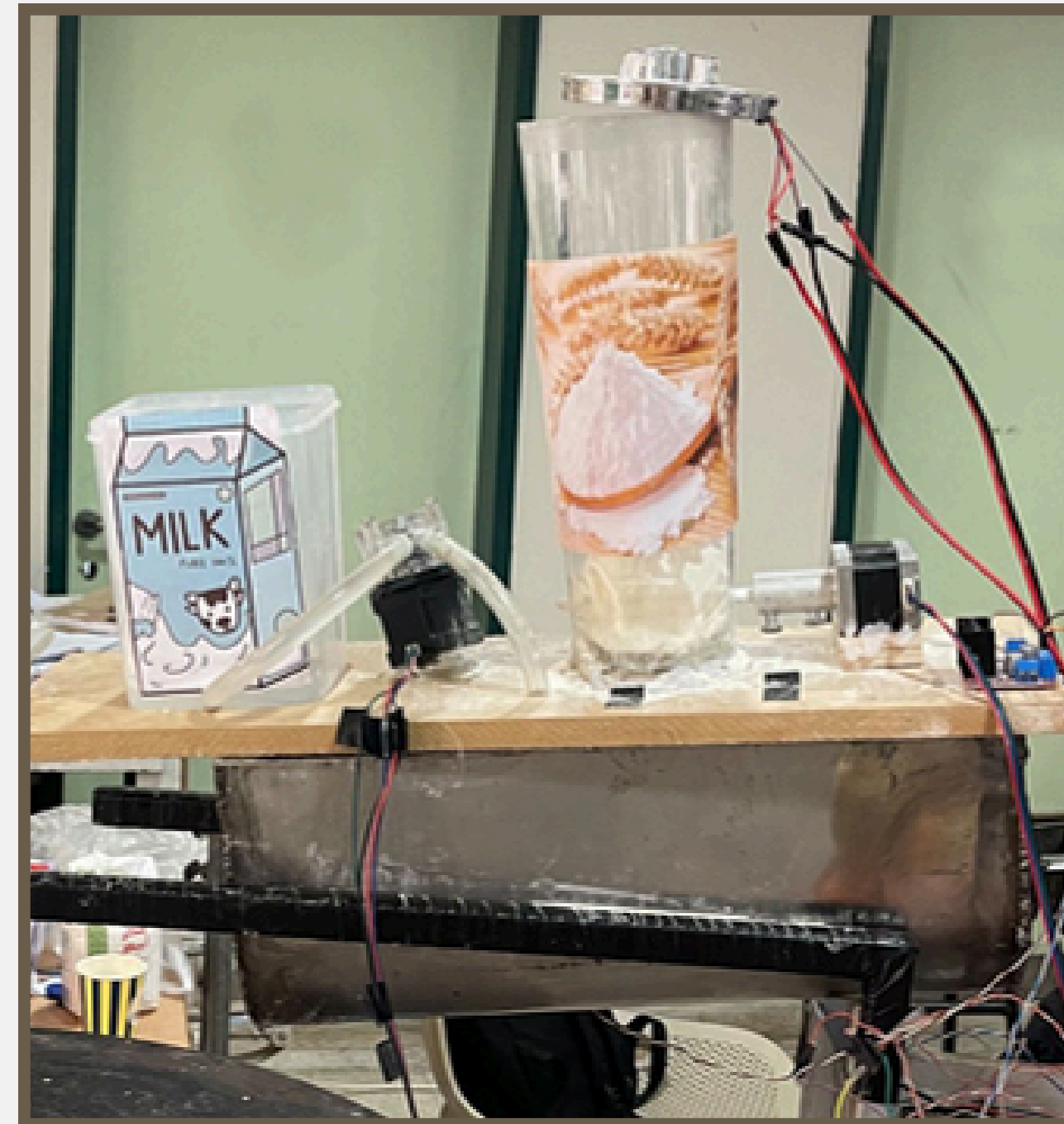
## Liquid ingredients



Milk



Butter

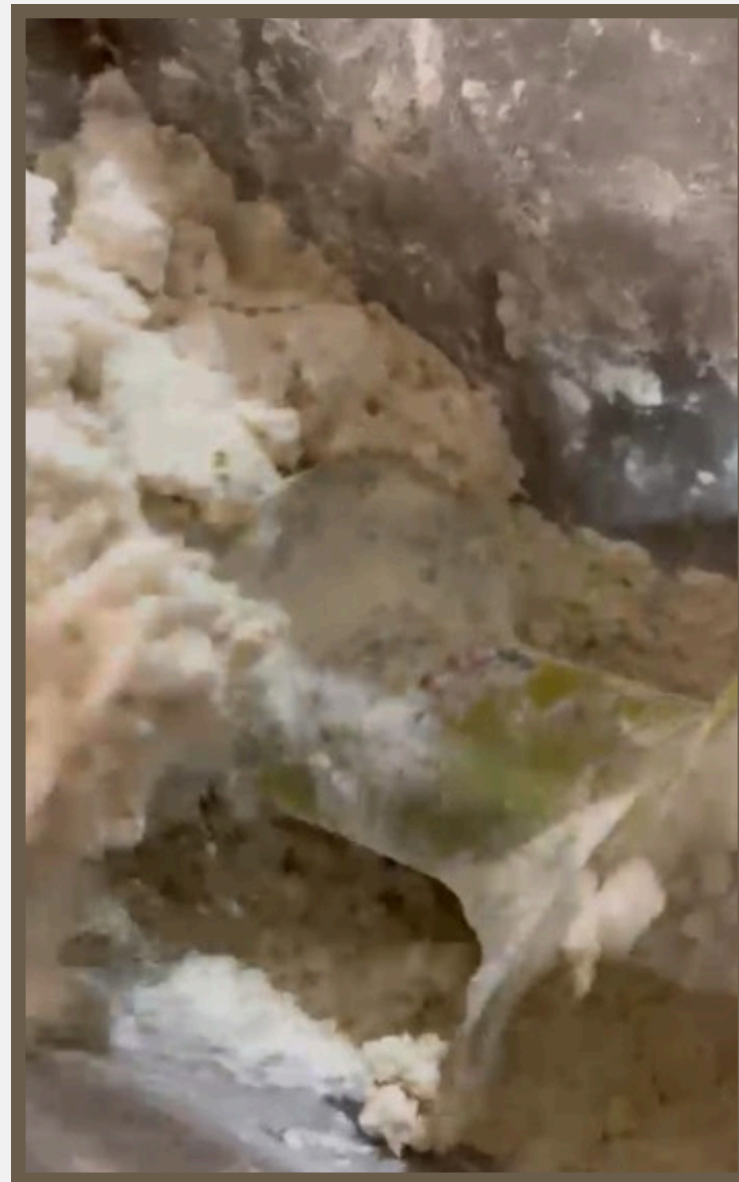
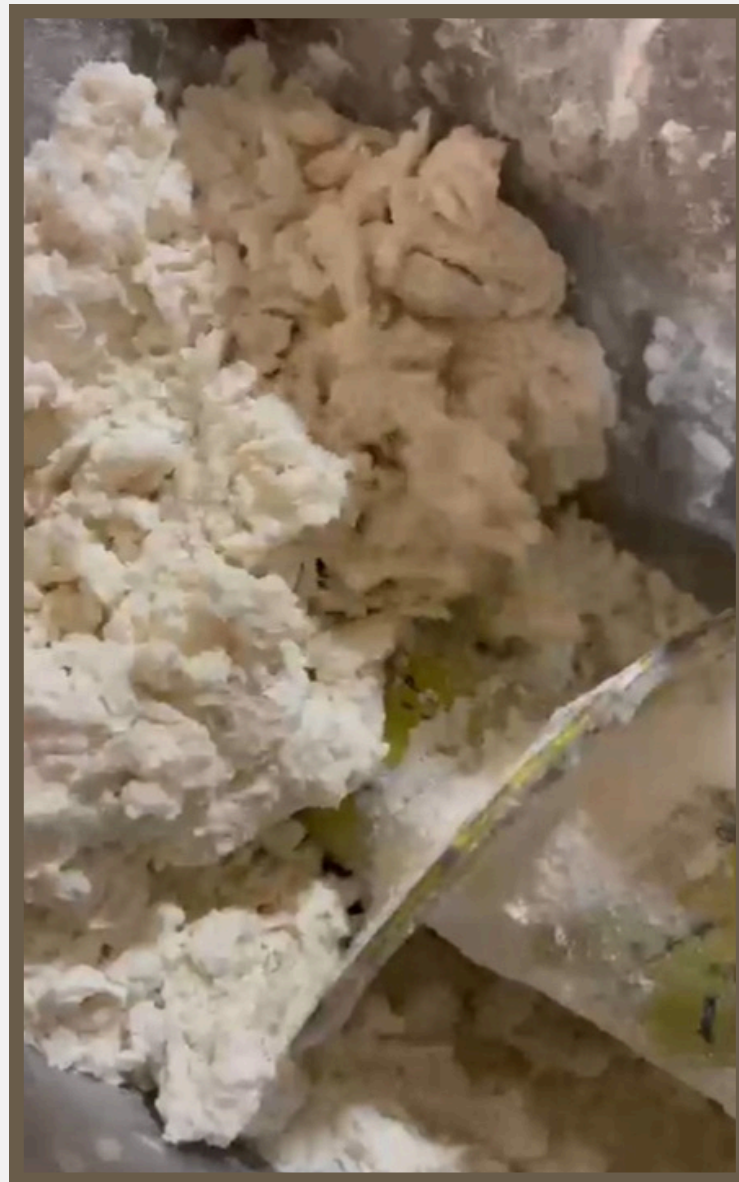




# Process

COOKIES CRAFTER

Then, we start kneading the mixture until it's smooth and well combined.

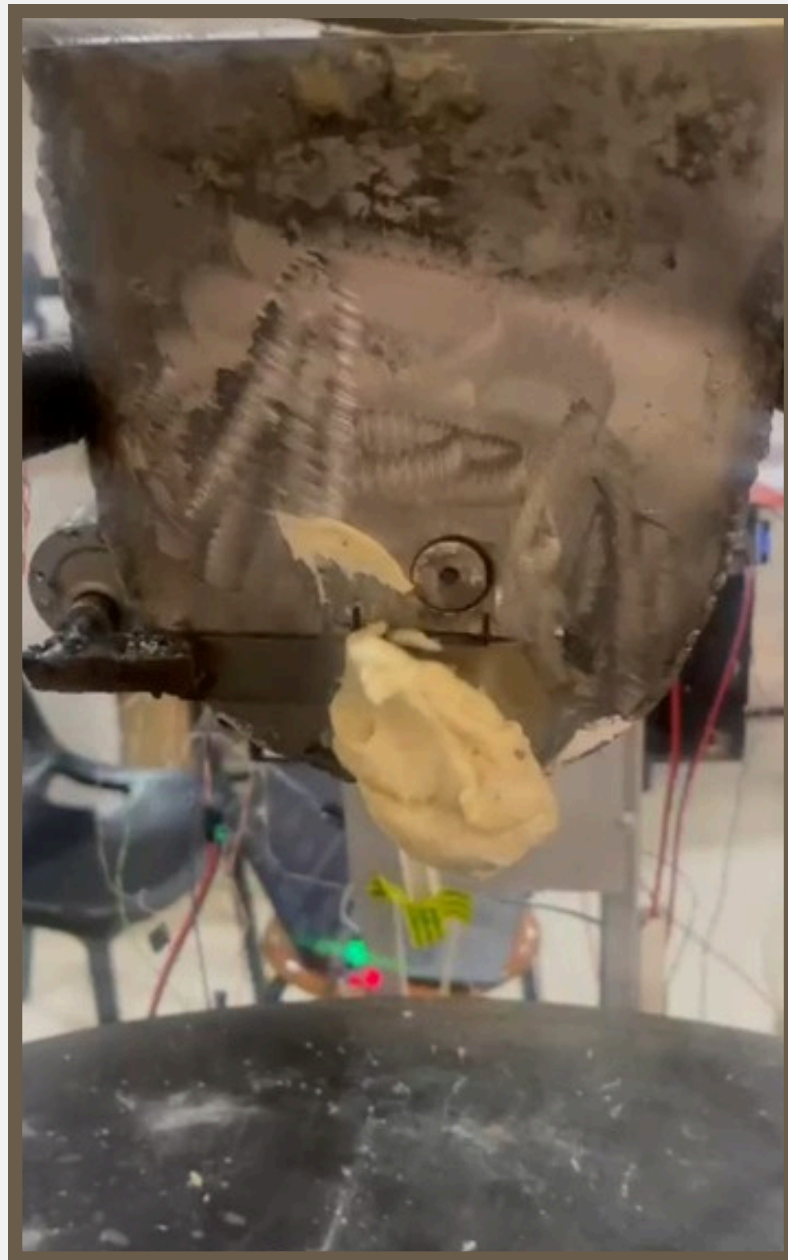




# Process

COOKIES CRAFTER

Finally, we shape the cookie dough and bake them until golden and crisp.





# Constants & Challenges

Cost of Components

Occupation-related issues

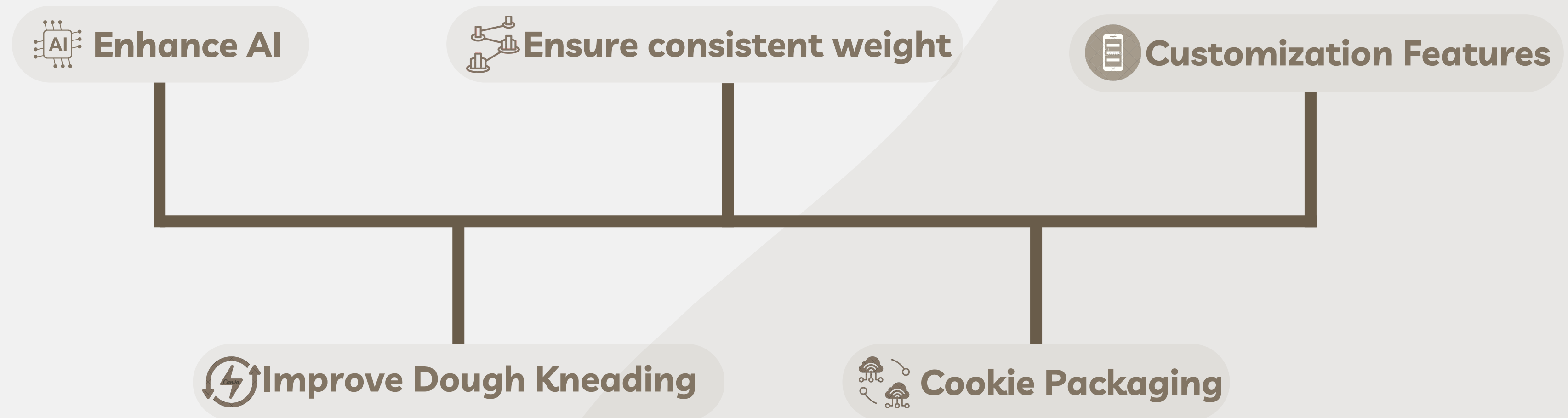
Maintaining Consistency

Energy Consumption

Complexity of Integration

Material Waste

# **Future Work**



COOKIES CRAFTER

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# Thank you

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