

SEPTEMBER 24TH 2024

ASSIGNMENT #1 - FINAL

INDS 2016 - Cooking For Care

COOKING WITH CARE

MITCHELL PRETAK

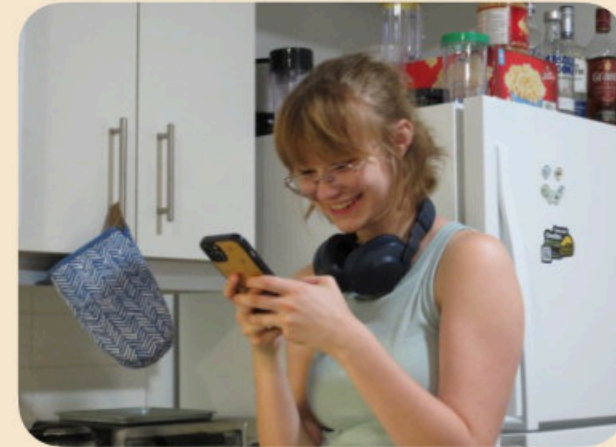
INDS 2016 - Human Centred Design
Assignment #1 - Cooking For Care

Table Of Contents

A PREVIEW OF THE PRESENTATION AHEAD.

1 Pre-Observation Interview

Basic questions regarding Sabrinas relationship with cooking



2 Observation & Task Analysis

Observing a cooking experience with Sabrina



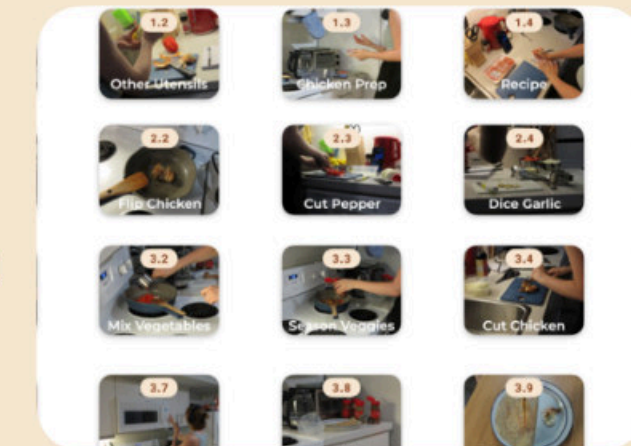
3 Post-Observation Interview

A follow-up Interview to establish if / how theres been any changes



4 Reflection & Analysis

Reflection of problem areas from the observation



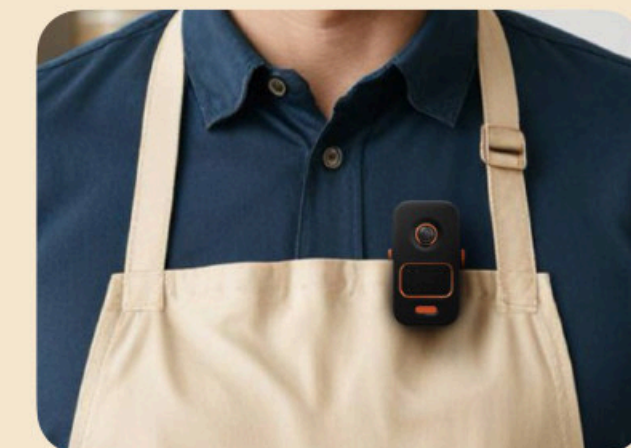
5 How Might We Questions

Creating How might we Questions



6 Solution Prototyping

Concepts, Mockups, and Prototypes for the final product



1

PRE - OBSERVATION INTERVIEW

Partner

SABRINA



1

Pre - Observation Interview

Cooking In General Interview

What motivates you to cook? How has this changed over the years?

"Stomach"

What would an ideal cooking experience look like to you?

Detailed instructions - for beginners

What are your overall Favourite things about cooking?

(Functional) End result; getting good food | (Emotional) - none

How many times a month do you cook

Currently (living with roommates) around 15 times a month

When living at home with family ~ 3 times per month.

Favourite cooking memory ever

In Japan at a Japanese barbecue;

Sabrina enjoyed dining with others and the interactive aspect of cooking your food.

Least favourite Thing About cooking

Preparation - yet enjoys the cleanup aspect

Deciding what to cook - how to approach it

1

PRE - OBSERVATION INTERVIEW

Last Cooking Experience

When was the last time you cooked a meal? What did you make?

Last Week - Wednesday

Did you enjoy it

Sort of - More of a stressful experience than a good one

Why did / didn't you enjoy it?

Didn't- was critiqued by roommate - (good cook).

How could've you improved this cooking experience.

Not having roommate watching (Privacy)

Roommate created a stressful experience, would've rather been alone

Having more experience

Better Instructions

1

Pre - Observation Interview

1

PRE - OBSERVATION INTERVIEW

Pre-Observation Interview

What are you making today

Chicken quesadillas

On a scale of 1-10 how scared / Anxious are you about cooking this meal

7/10 (10 being scared)

Have you made this meal before?

No

Any specific parts you're concerned about?

Efficiency / time management

1

Pre - Observation Interview

2

OBSERVATION & TASK ANALYSIS

Task Analysis

OVERALL BREAKDOWN

1



Preparation & Setup

Copying down
recipe, collecting
Ingredients, Tools,
etc.

2



Cooking & Cutting

Cooking chicken,
dicing vegetables,
etc.

3



Assembly

Putting it all
together

4



Finished

Cleanup & Exit
Interview

Task Analysis (Detailed)

1

PREPARATION & SETUP

1.1



Pans

She got a pan from the cupboard, and began warming it on the stove

1.2



Other Utensils

While the pan was heating up, she also pulled out a cutting board and knives

1.3



Chicken Prep

Next, she got the chicken from the fridge, and put it in the pan

1.4



Recipe

Copying down recipe from her phone onto a notepad

1.5



Vegetable Prep

Then she also got onions and peppers, as well as a knife

2

OBSERVATION & TASK ANALYSIS

Task Analysis (Detailed)

2 Cooking & Cutting

2.1



Chopping Onions

While the chicken was cooking, she chopped onions

2.2



Flip Chicken

Once the onions & Peppers were done, she stopped and flipped the chicken

2.3



Cut Pepper

Next she chopped the red pepper into strips.

2.4



Dice Garlic

After flipping the garlic, she returned to the cutting board to dice garlic

2.5



Remove Chicken

Once ready, the next step was to remove chicken from the pan, and set aside.

Task Analysis (Detailed)

3 Putting it all together

3.1



Seasonings

Sabrina got spices from the cupboard, and removed and threw out the seals

3.2



Mix Vegetables

She then added the three veggies to the pan

3.3



Season Veggie Mix

While Stirring, she added all of the seasonings

3.4



Cut Chicken

While the vegetables cooked, she cut the chicken into squares, and added to the mix

3.5



Cheese Grater

Then she got a cheese grater and container from the cupboard.

Task Analysis (Detailed)

3 Putting it all together

3.6



Tortillas

Next she got a Tortilla from the pantry, and put the shredded cheese on half.

3.7



Warming up

She put the Tortilla & cheese into the microwave

3.8



Add Mix

Once out, she added the Vegetables and chicken to the Tortilla, folding it over

3.9



Add Sour Cream

Finally, add a dollop of sour cream, with some seasonings on top

3.9



Done!

Final result, now move onto cleanup & exit interview.

2

OBSERVATION & TASK ANALYSIS

Task Analysis (Detailed)

Done

4.0



Exit Interview Questions

How are you feeling now (anxiety not satisfaction with the final product)

9/10 for feeling good / relaxed - Relieved that she could make something that looks and tastes good

How would you rate the final product

9/10 - Very pleased

What areas did you struggle with

Chicken - concern over being defrosted / cooked properly

Time - took too long

You Mentioned your wrist is unsteady / shaky from an injury, is there a reason you don't wear a brace while cooking?

Doesn't want to become reliant / dependant on a brace

Did this meal have any significance to you?

Had it the other night with her friend - making it today brought back memory of that experience

The friend from the memory is the one who provided the recipe? Would you have benefitted from having her here / having her help cooking?

No, most areas where [Sabrina] struggled with could've been helped by someone with general cooking experience, but no help needed with recipe.

Analysis

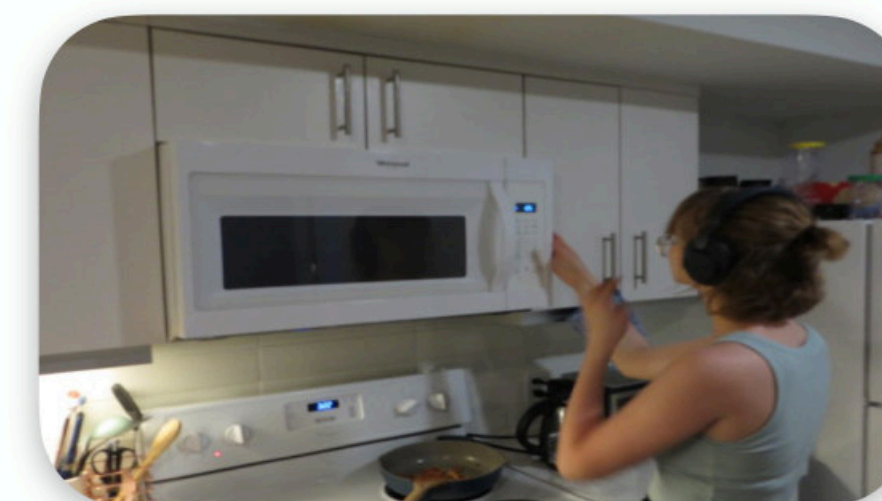
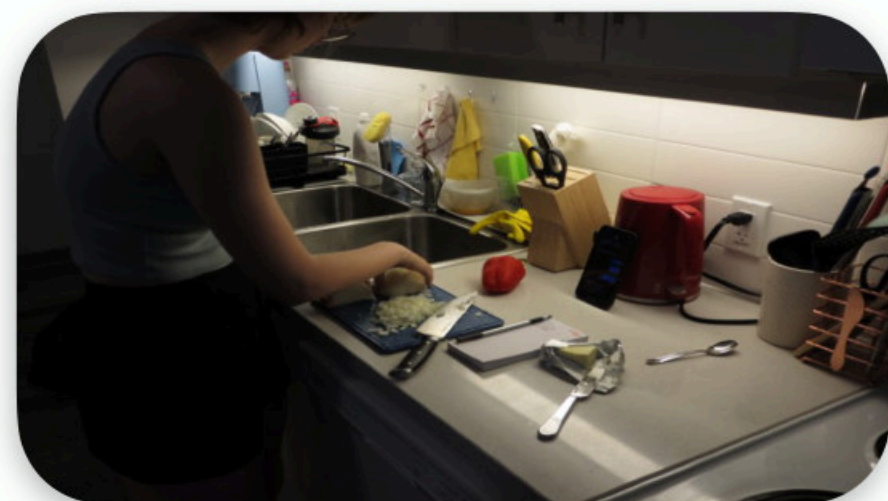
INTERVIEWS

In the Pre-Observation Interview, Sabrina rated her stress & Discomfort at a 7/10
(10 being bad)

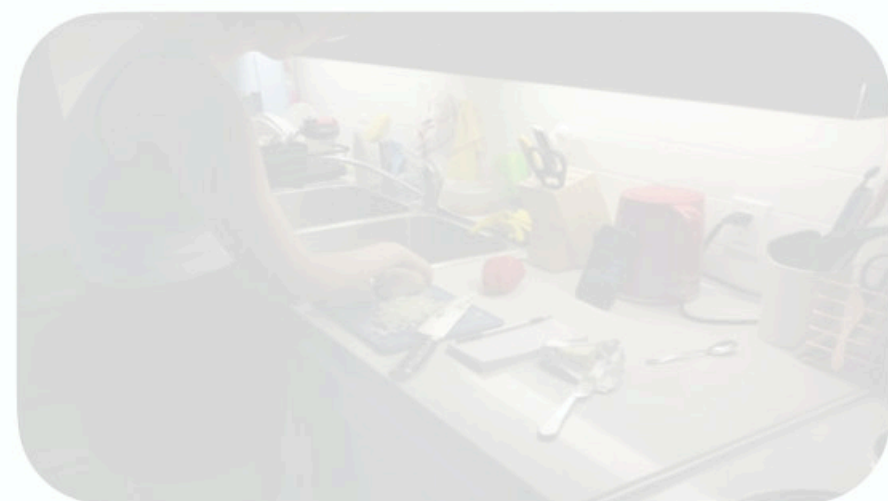
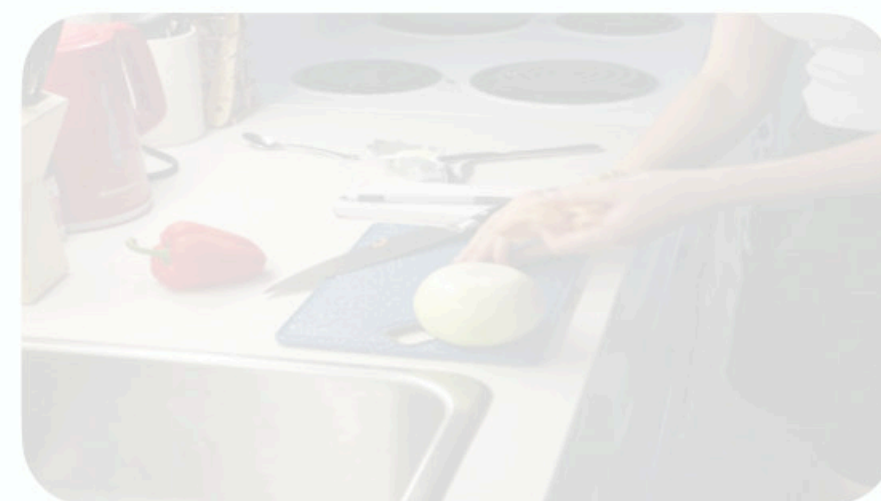
After the observation, she felt relaxed, rating her feelings a 9/10
(10 being good)

4

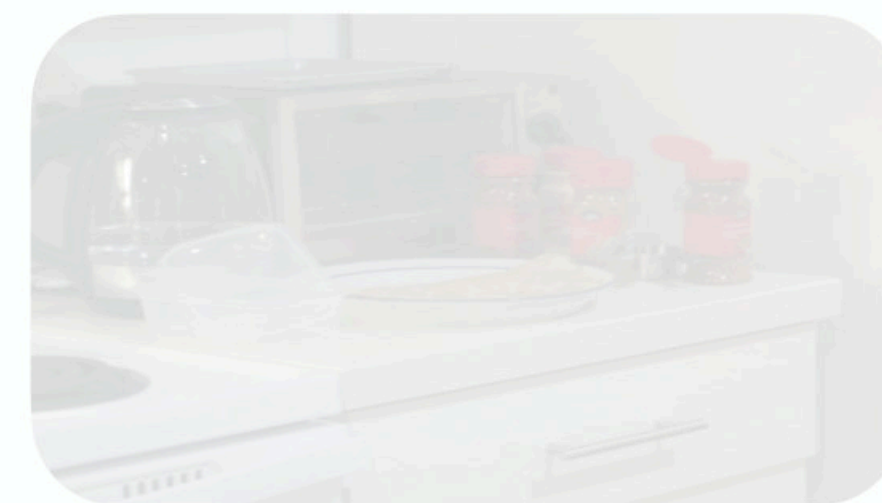
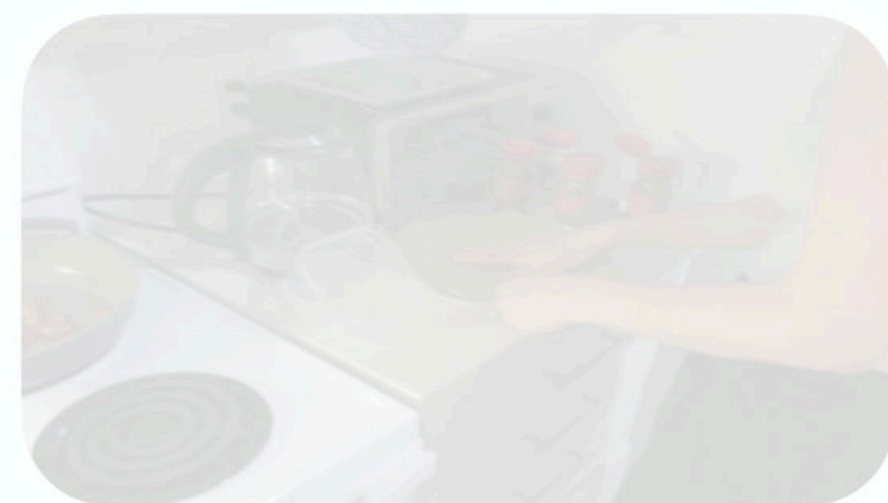
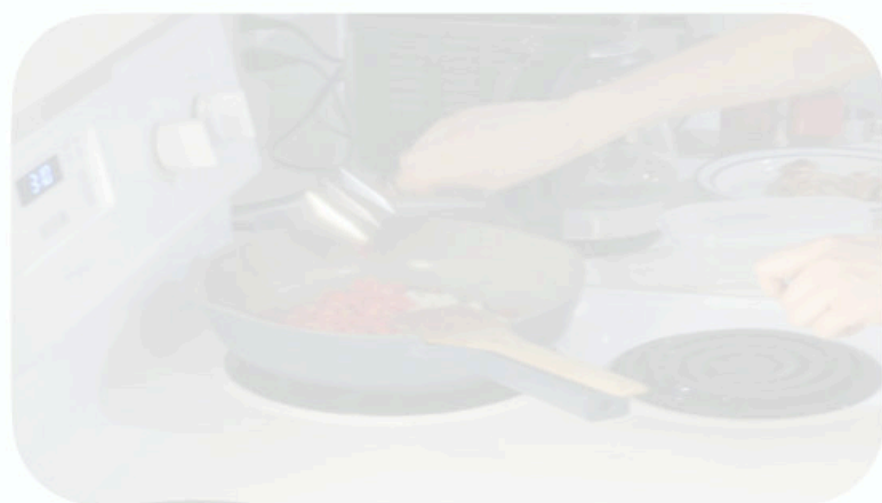
REFLECTION & ANALYSIS



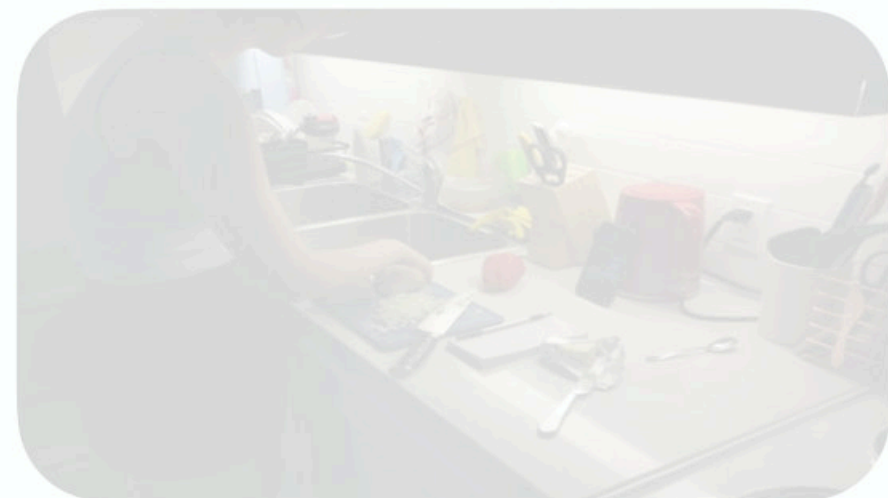
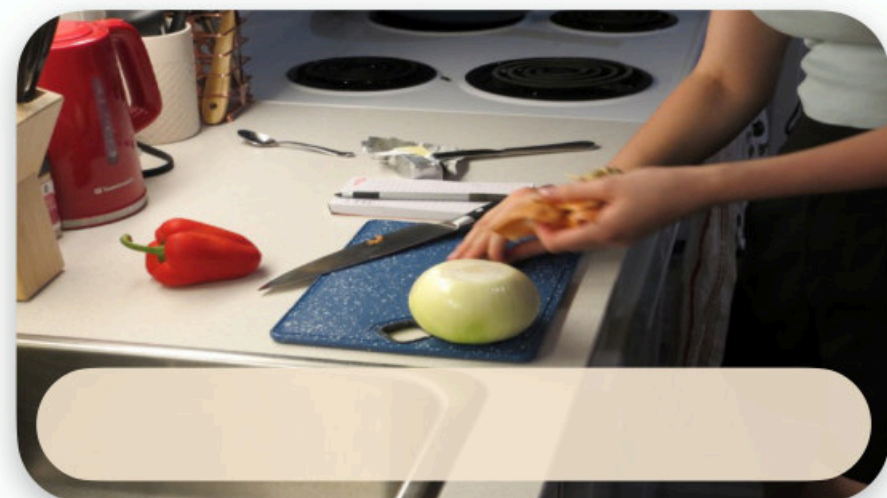
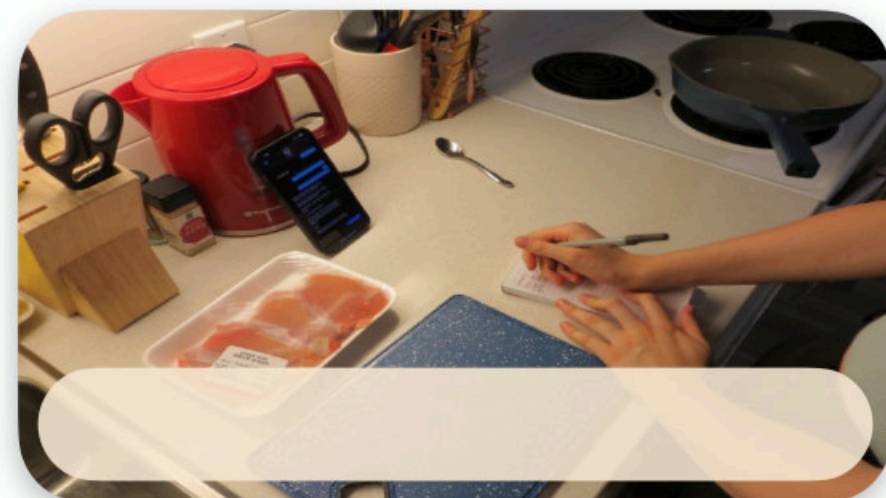
REFLECTION & ANALYSIS



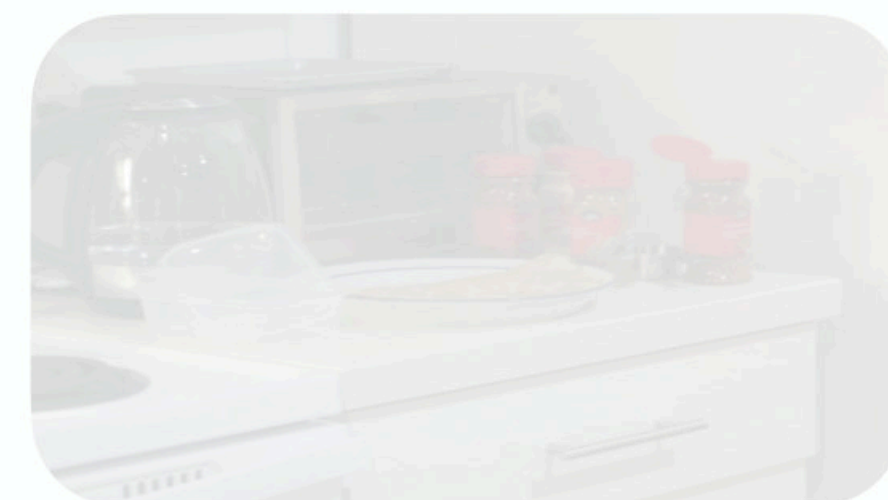
Chicken
not Fully
defrosted.



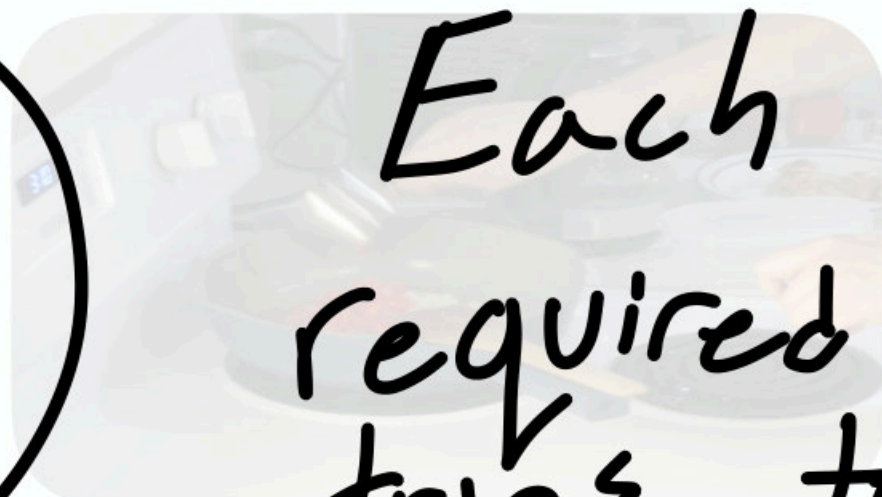
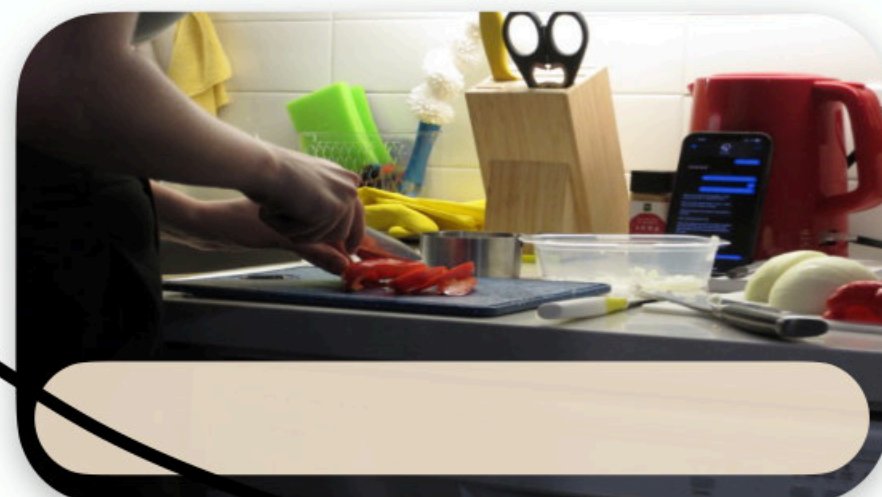
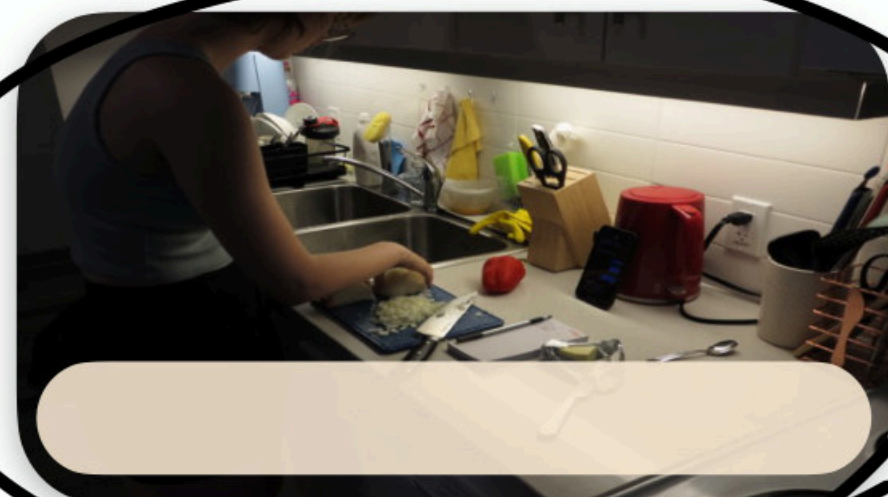
REFLECTION & ANALYSIS



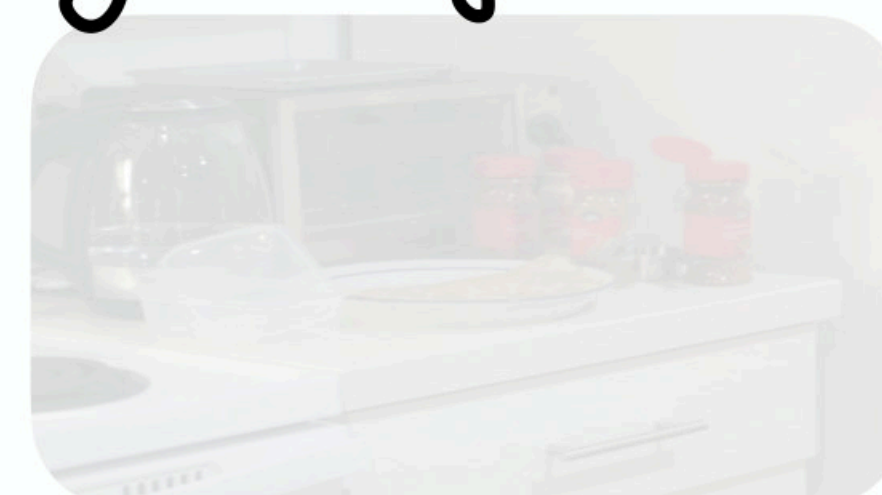
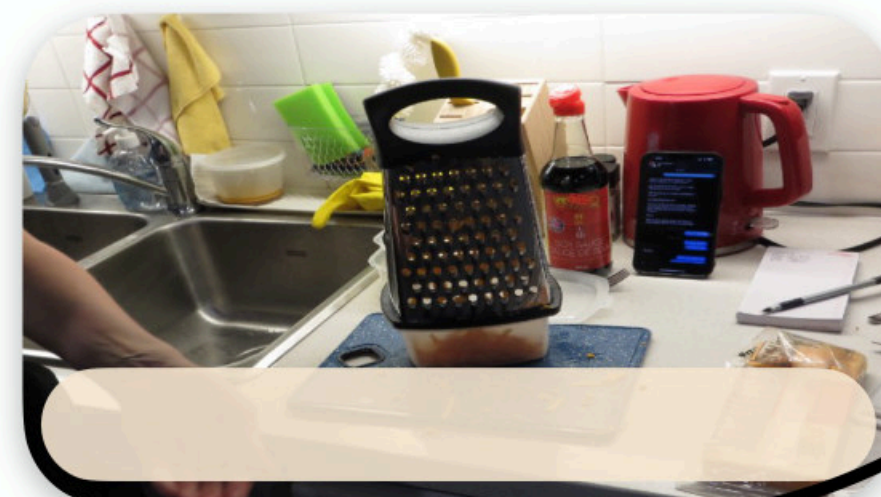
Missing ingredients
From setup / prep.



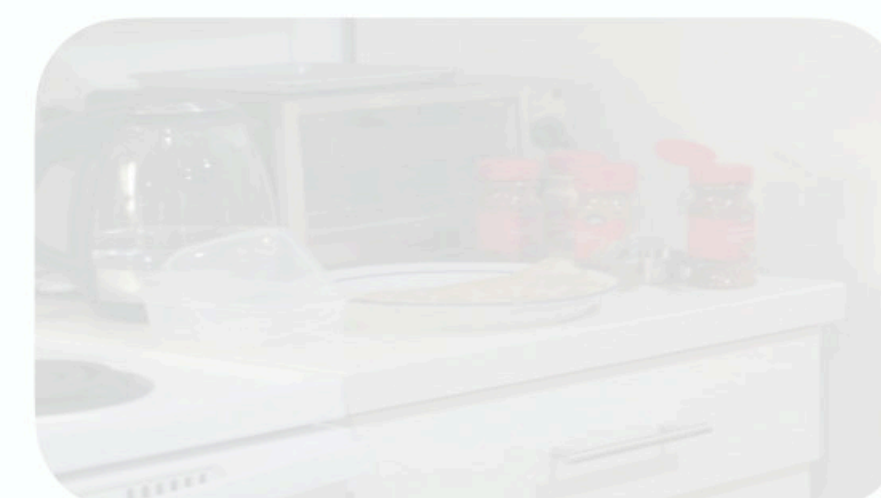
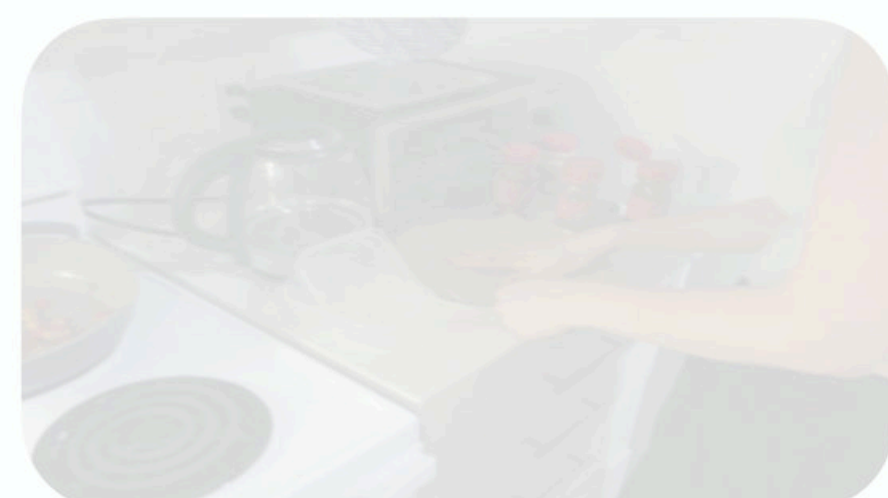
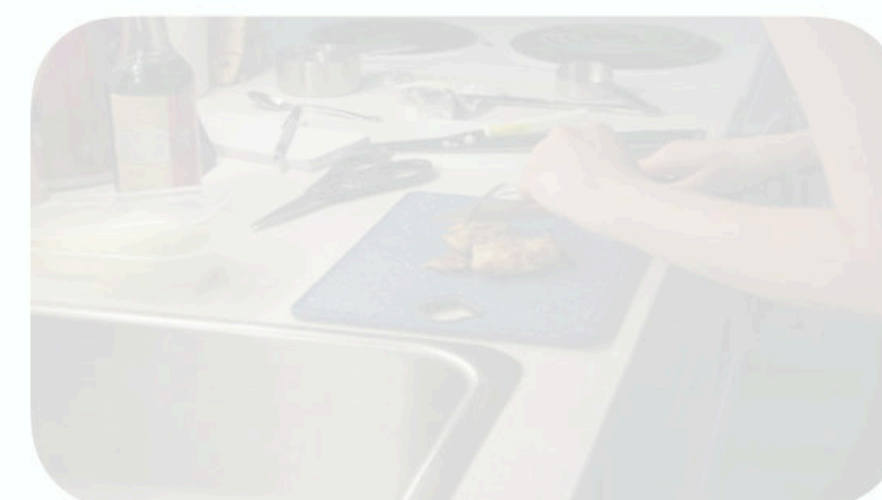
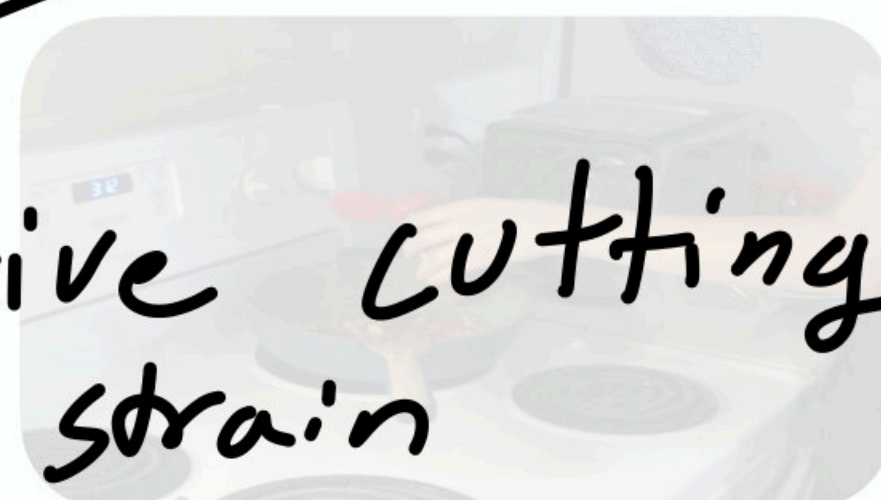
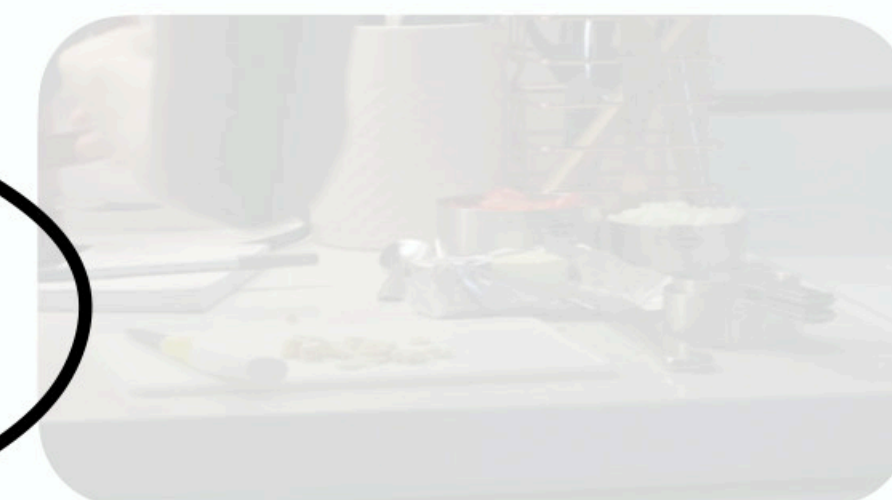
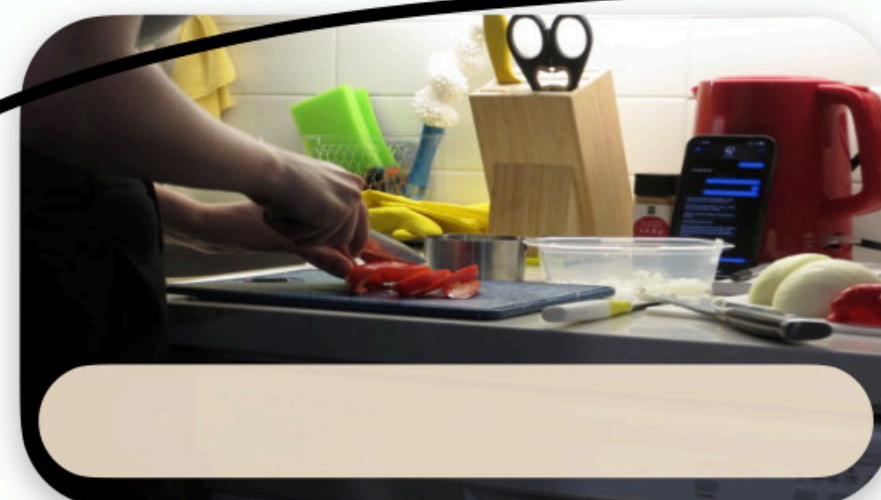
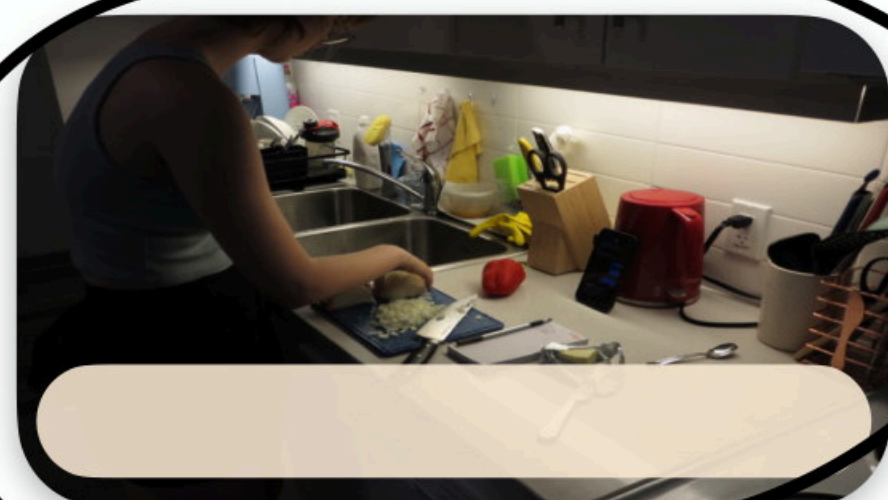
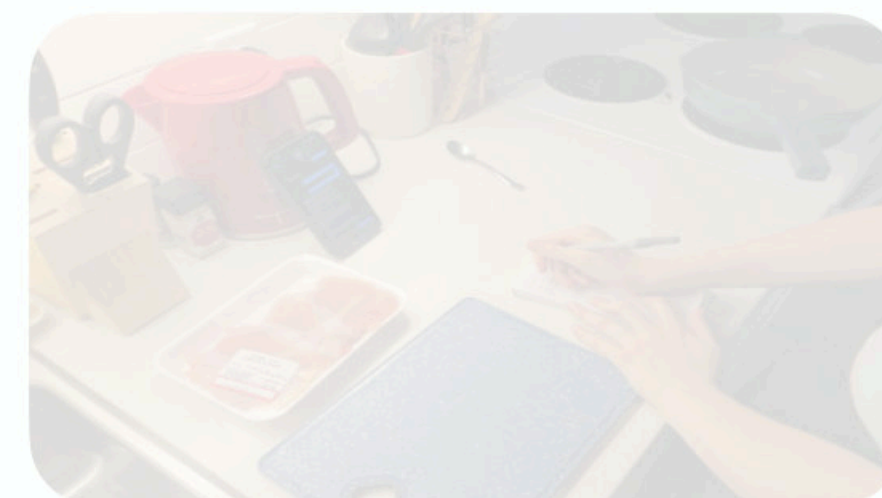
REFLECTION & ANALYSIS



Each step
required
trips to
bin



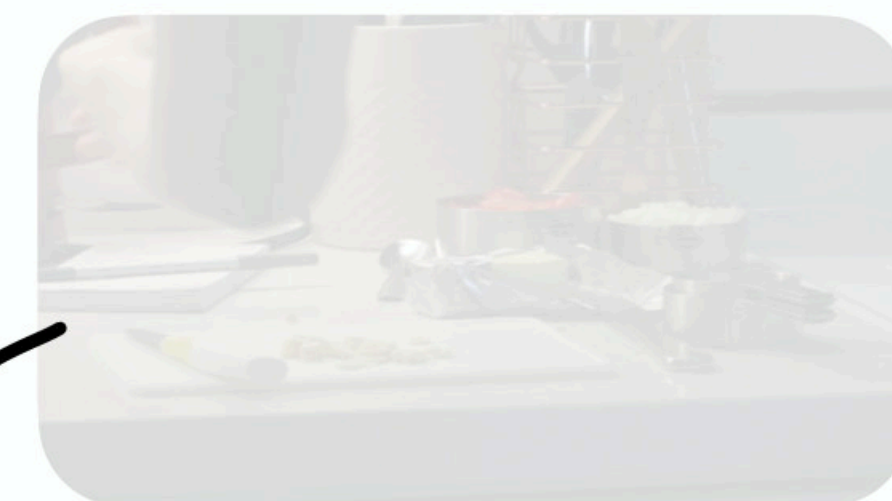
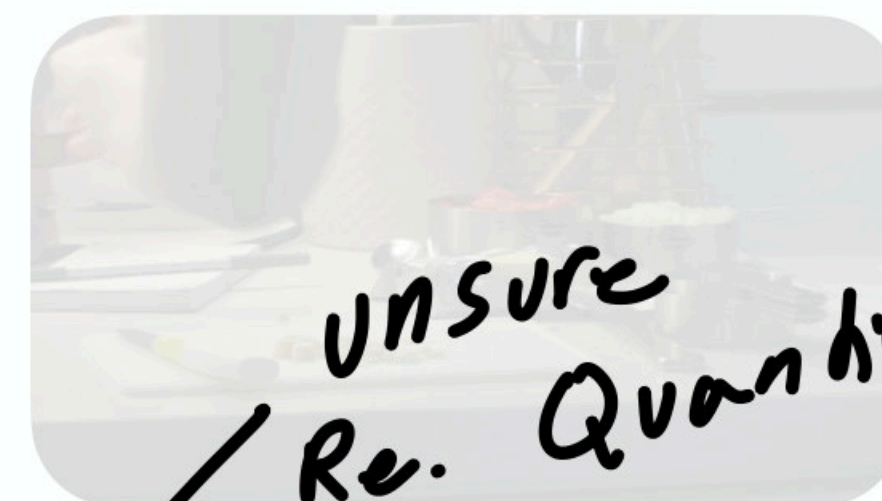
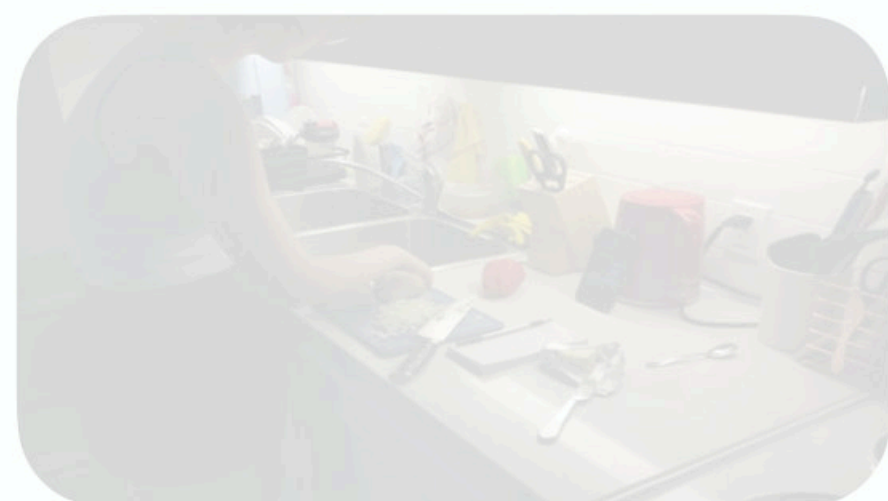
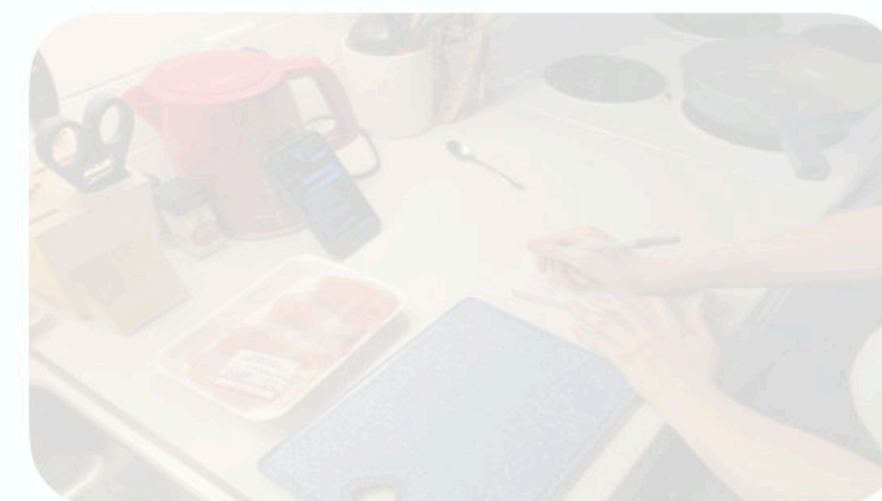
REFLECTION & ANALYSIS



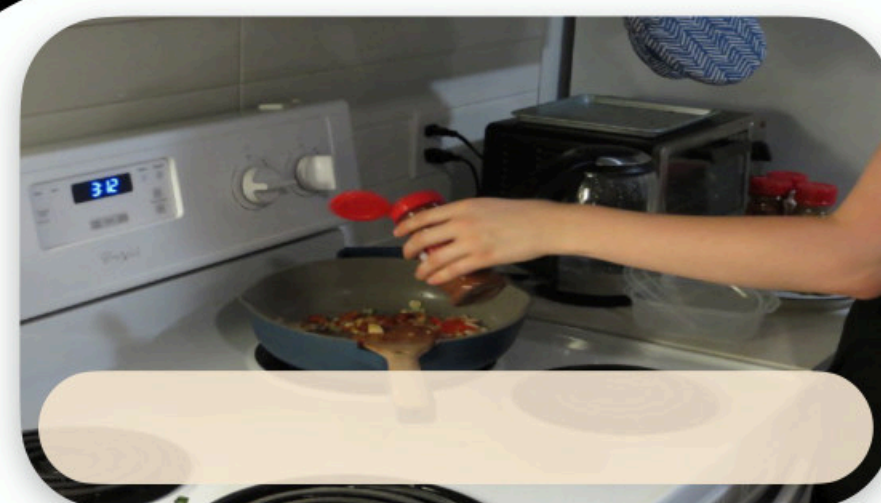
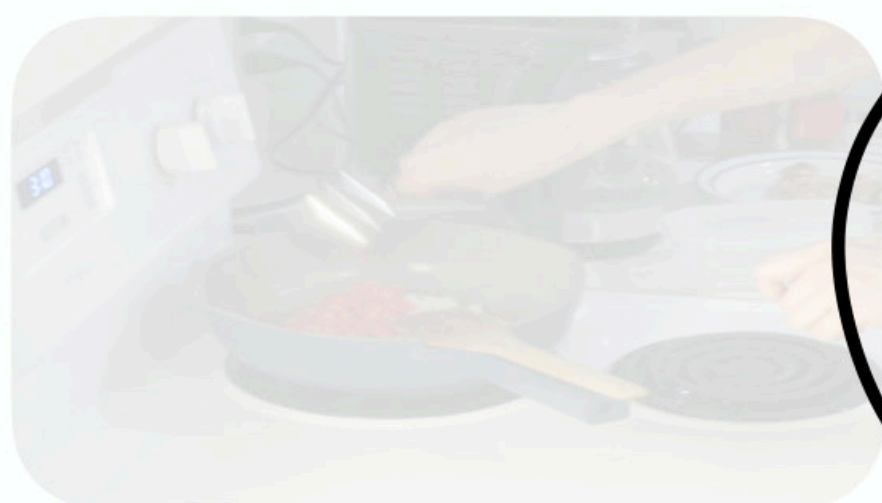
Repetitive cutting
causing strain

4

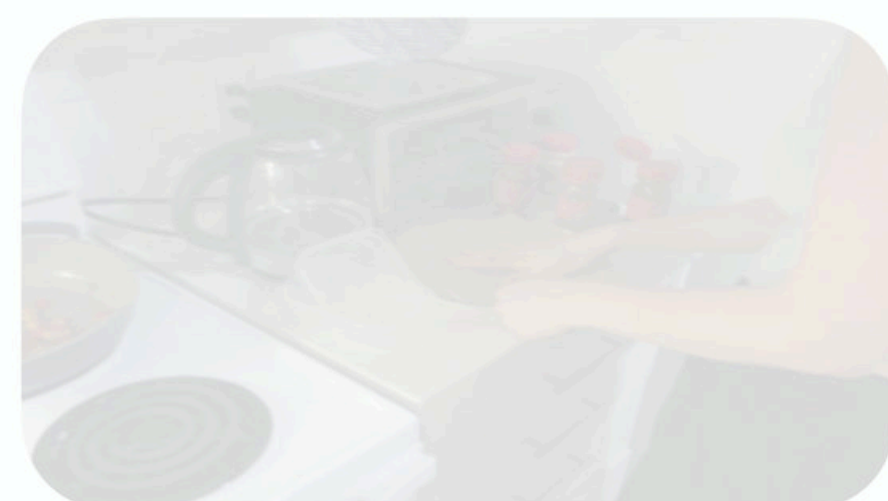
REFLECTION & ANALYSIS



Unsure
Re. Quantity



Free
Poured



Problem Areas

TIME & EFFICIENCY

- Lost a lot of time traveling to garbage bin
- ~~Difficulties cutting due to wrist injury~~ - Can't be reliant on brace
- Had to stop cooking to unlock phone & check recipe, change music etc (then wash hands before going back to cooking.)

Final Product

KNOWLEDGE

Chicken Wasn't fully Defrosted - Unsure how to proceed
General uncertainty / Hesitating on certain steps (Chicken prep, amount of Seasoning, etc)

ORGANIZATION

Difficult to organize kitchen, as its shared with 5 roommates

5

HOW MIGHT WE QUESTIONS

How Might We...

1

How might we help Sabrina **organize her kitchen** space to **minimize unnecessary movements** and **improve workflow**?

2

How might we **create a system** to help Sabrina better **plan her meals & setup** in advance, **reducing decision fatigue**?

3

How might we **simplify food preparation** for **beginner cooks** to make the process **less overwhelming**?

4

How might we make cooking **more enjoyable** for those who see it **as purely functional**, in order to add an **emotional or social element**?

5

How might we **enhance the cooking experience** for people **who are learning**, in order to build & increase **confidence in the kitchen**?

5

How Might We Questions

5

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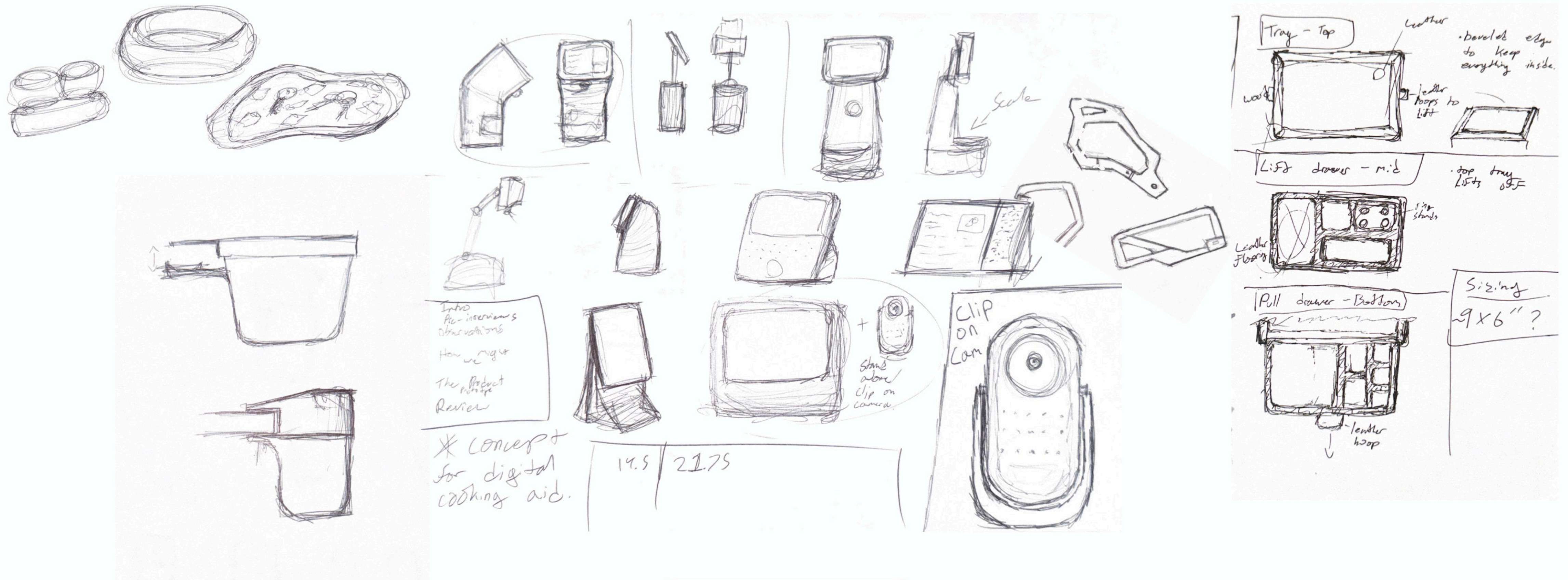
How might we **enhance the cooking experience** for people **who are learning**, in order to build & increase **confidence in the kitchen**?

5

How Might We Questions

Ideating

INITIAL SKETCHES



6

SOLUTION PROTOTYPING

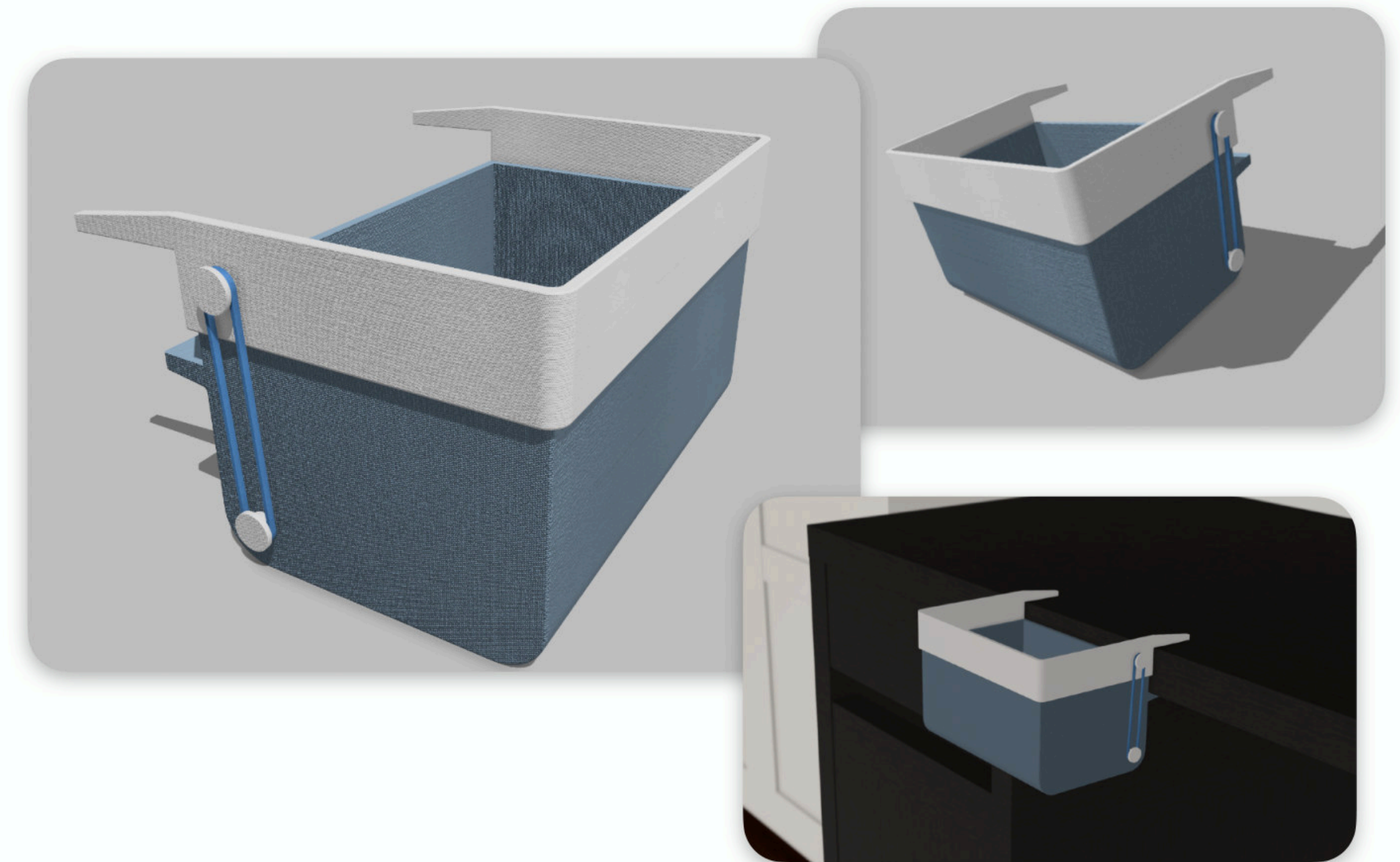
Ideating

IDEA REFINEMENT VIA 3D MODELLING

Ai Cooking assistant



Clip-on Bin



6

Solution Prototyping

The Final Product

FINAL DESIGN PROTOTYPING V1 (CARDBOARD)



ISSUES

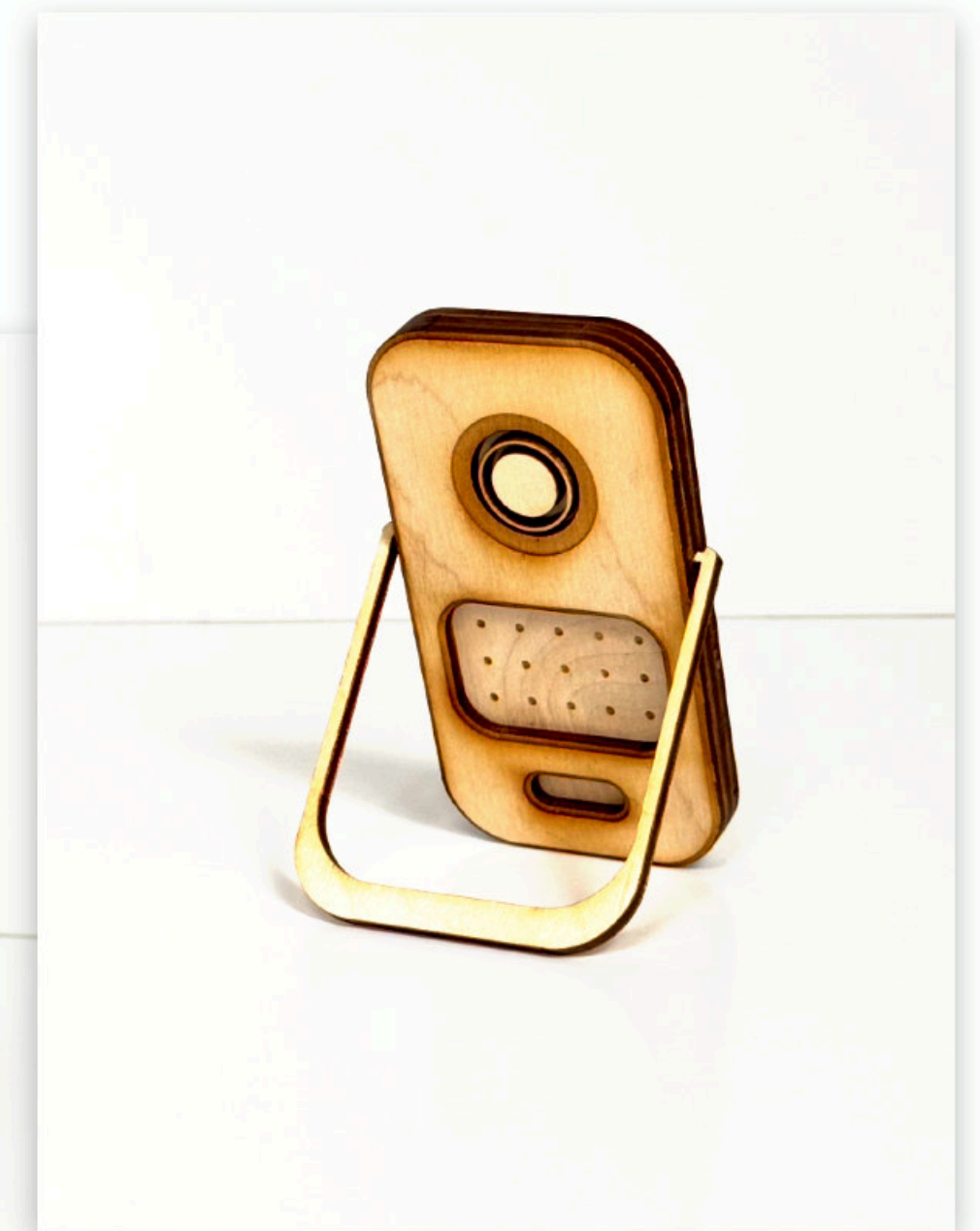
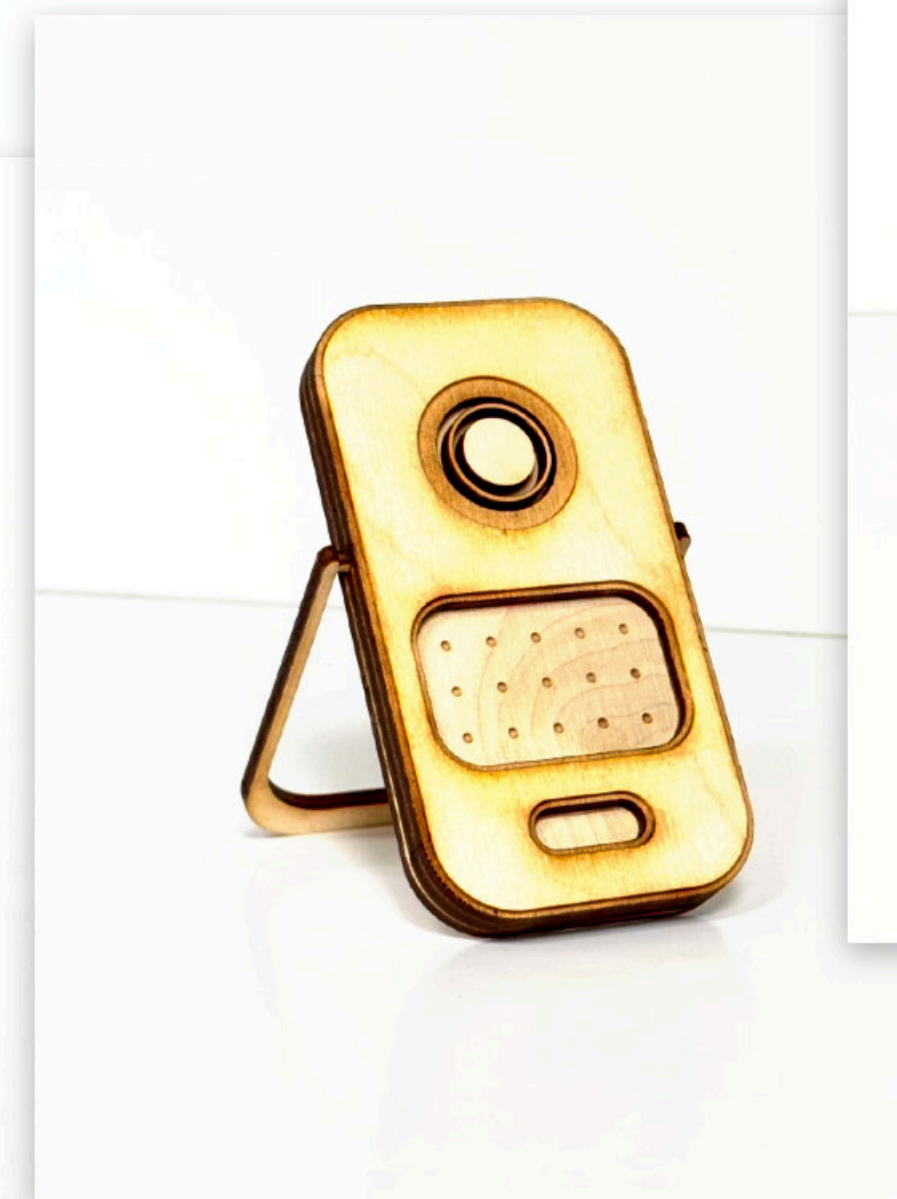
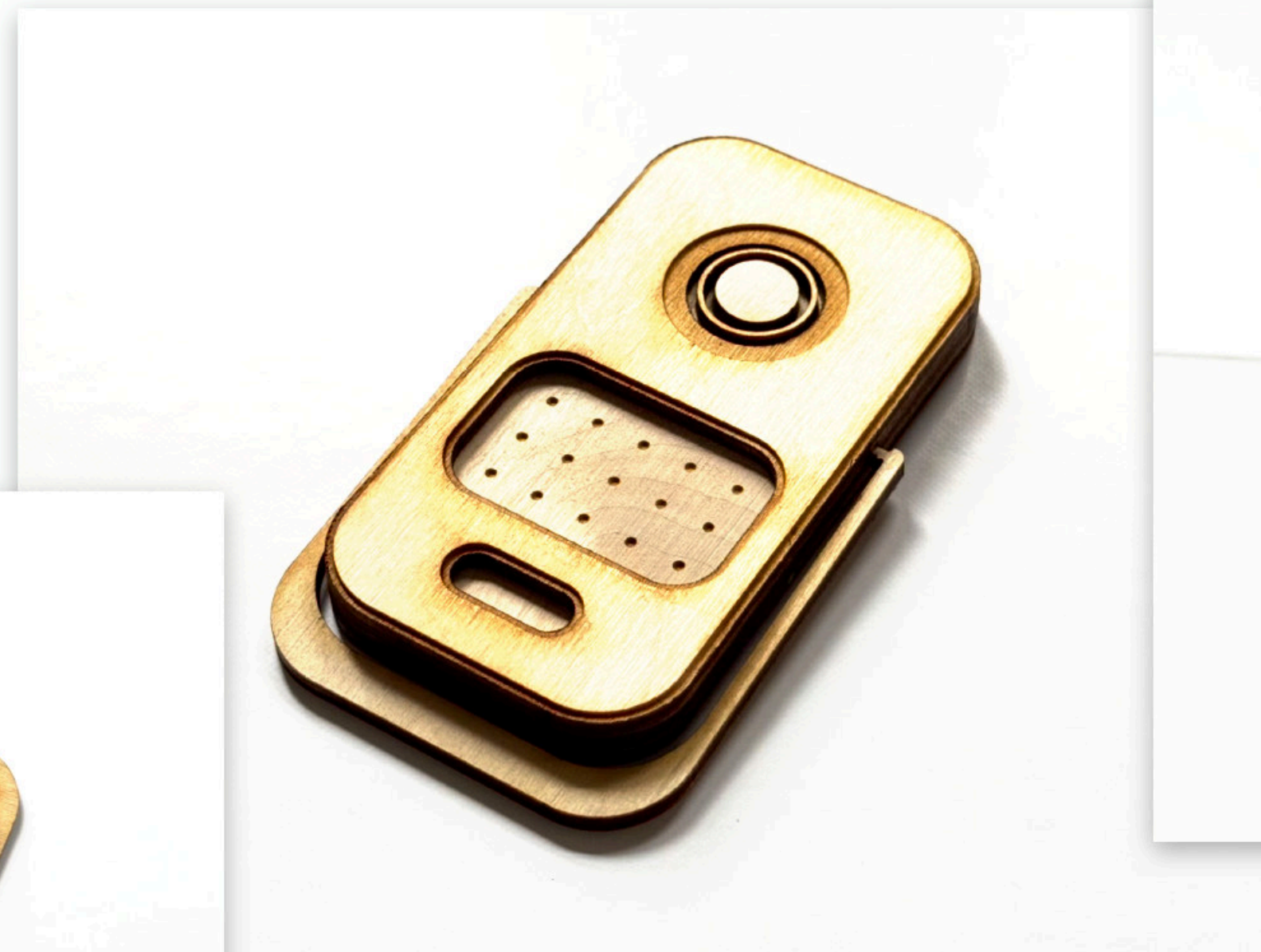
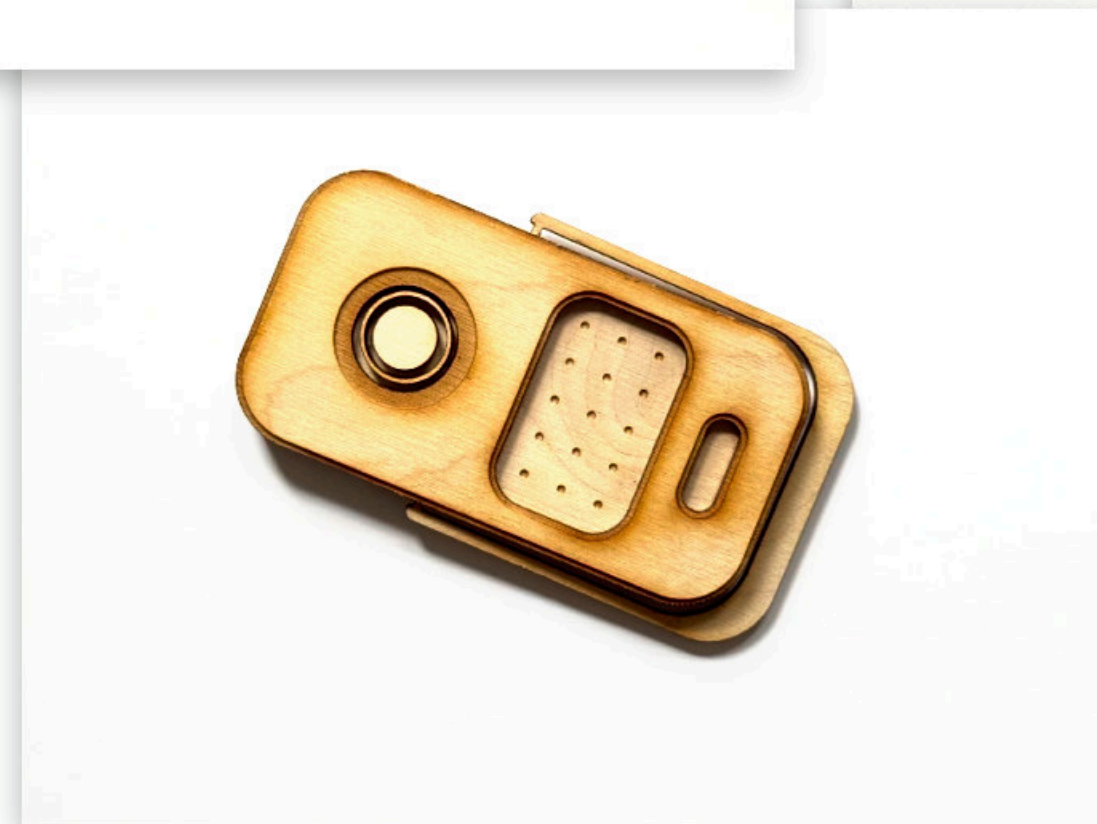
Too small - Unrealistic & Proportion to material thickness was off

6

SOLUTION PROTOTYPING

Final Product

FINAL PROTOTYPE DESIGN (V2)



6

Solution Prototyping

Final Product

DESCRIPTION

An **Ai cooking aid** that uses an ultra wide camera to supervise, analyze and aid the user throughout their cooking experience, while working with a mobile app, or other home display hubs.

DEVICE FEATURES

Ultrawide Camera - Allows for wide angle viewing, for better context of what the user is doing

Stand / Clip - Dynamic arms for versatility of position; use as a clip on body cam or a standing camera.

Speakers - For video calling or Ai integration

Final Product

DESCRIPTION

An **Ai cooking aid** that uses an ultra wide camera to supervise, analyze and aid the user throughout their cooking experience, while working with a mobile app, or other home display hubs.

POSSIBLE AI FEATURES

Recipe Autoscroll - Uses machine learning to determine which step in the cooking process the user is on, then auto scroll the onscreen recipe to that section/step

Feedback & Verbal instructions - Provides tips and tricks throughout your experience, based on areas it determines the user struggles with

Video Calling - Experience cooking with long-distance loved ones by cooking the same meal together, or watching what the other person is making

Question support - Answers simple questions by searching online, in the recipe or using its pre-built library; (is this meat cooked properly, how long do I cook for, etc)

Unit conversion - Either based off a question, or in the context of instructions (...whats that in ml?)

Auto set timers - Knows to start a timer after certain steps,

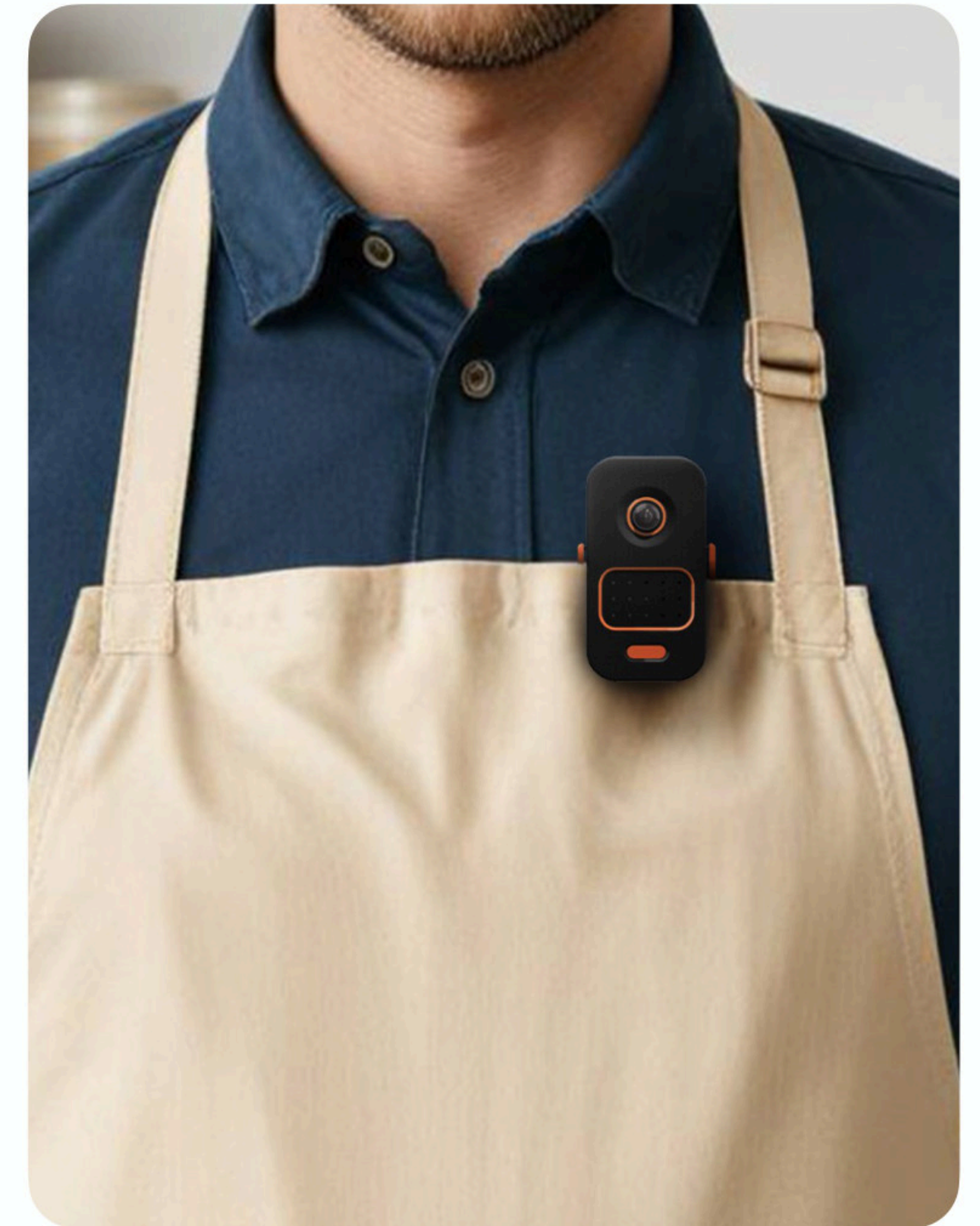
Smart home integrations - Preheat Ovens, draw espresso, etc.

6

SOLUTION PROTOTYPING

Final Product

IMAGES



6

Solution Prototyping

Review

Overall, I enjoyed exploring the research process for this assignment.

While I think the product its-self could've been more explored, It has a good aesthetic appeal, and fits well within the problem areas, and HMWs from my observations

SEPTEMBER 24TH 2024

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INDS 2016 - Cooking For Care

**THANKS FOR
WATCHING**

MITCHELL PRETAK

INDS 2016 - Human Centred Design
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