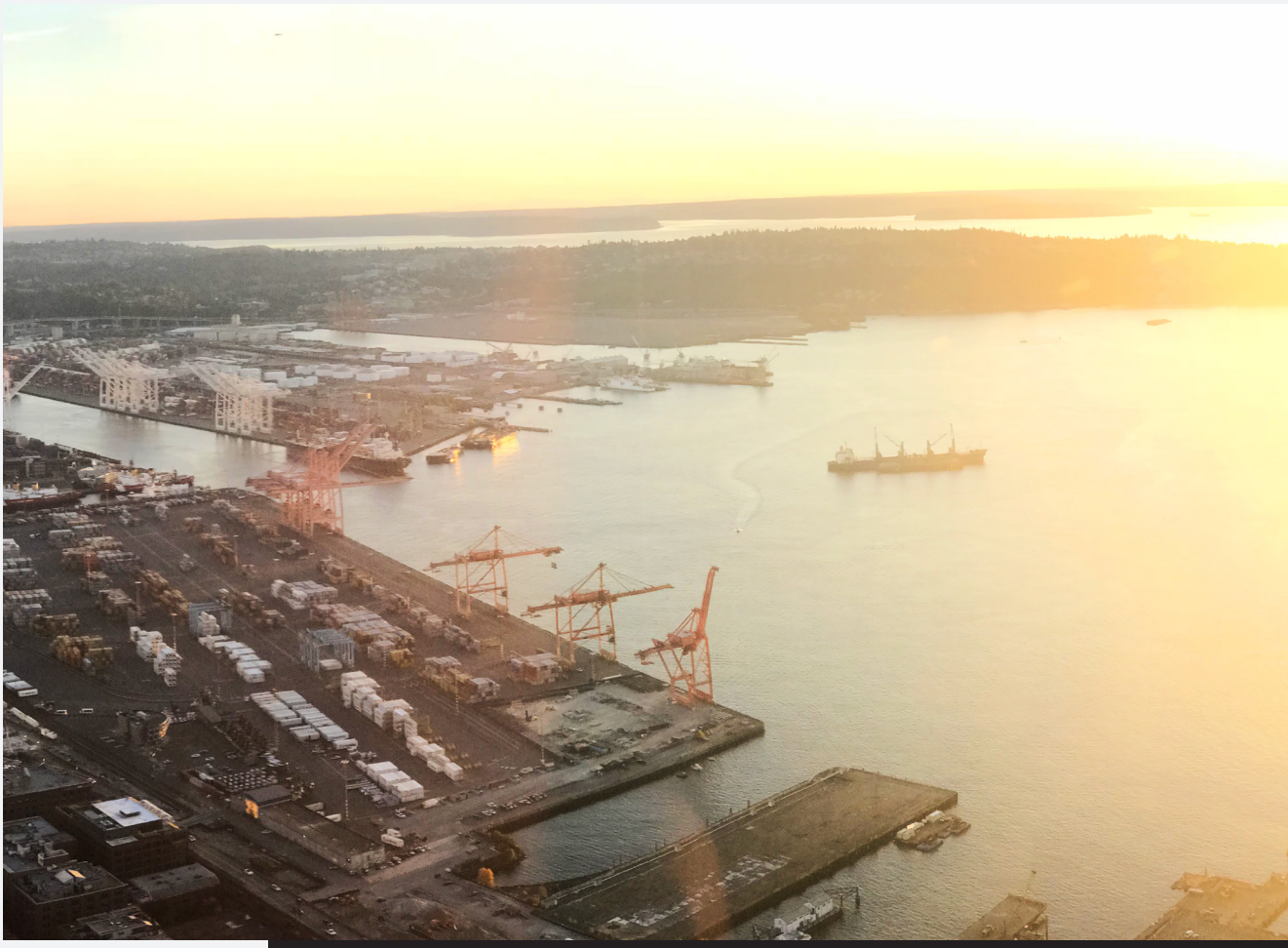
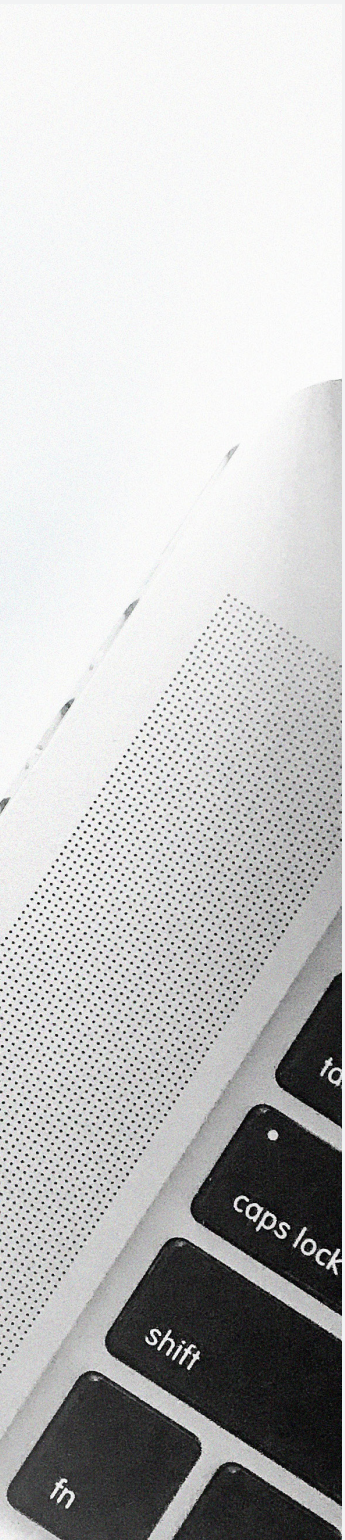


SHORT CAPTION GOES HERE | N47.6047 & W122.3305 | 10.04.18

CONTENTS.


5:12
Google Calendar
Photos
Clock
App Store
Notes
Reminders
Facebook
Uber
WhatsApp
Settings
Messenger
Google Maps
Paytm
Gmail
Zoho Mail
Calcbot
Slack
My Airtel
B'days
Music
Day Stars
Instagram
Buffer
Hangouts

APP DEVELOPMENT.



EXAMINE

IN OUR RESEARCH BOOK WE EXAMINED AMAZON'S APPS TO LEARN MORE ABOUT HOW THEY DESIGN FOR USERS.

SYNTHESIZE

TAKING OUR RESEARCH AND CREATING PERSONA'S AND OTHER DIAGRAMS TO EXPLORE HOW AND WHAT WE NEED THE APP TO DO.

CREATE

OUR WIREFRAMES AND PROTOTYPES.

VALIDATE

A SECTION ON HOW WE VALIDATED THE DESIGN WITH USER INPUT.

01.

WOMAN WRITING BY GREEN CHAMELEON | 01.30.18

USER PERSONAS.

Persona's are a great categorization method to make sure that we are conceptualizing our ideations around specific core users. It makes it easier to understand their problems and create solution that solve their specific problems.

We developed persona's by combining our interviews, surveys, and general conversations that we've had with people. These allow us to create hypothetical users that embody exactly what we are trying to create. It is important at every stage of the execution process to come back to our personas and ask ourselves if they would still need our product. If not, we need to correct our course and try something else.

Persona's also give us ideas for user testing. We should be testing with people who closely match our personas so that the user experience can be validated for the correct subset of stakeholders.

FUN FACT!!

“PERSONAS WERE INFORMALLY DEVELOPED BY ALAN COOPER IN THE EARLY ’80S AS A WAY TO EMPATHIZE WITH AND INTERNALIZE THE MINDSET OF PEOPLE WHO WOULD EVENTUALLY USE THE SOFTWARE HE WAS DESIGNING.”

- HTTPS://WWW.SMASHINGMAGAZINE.COM

APP DESIGN INTENTIONS.

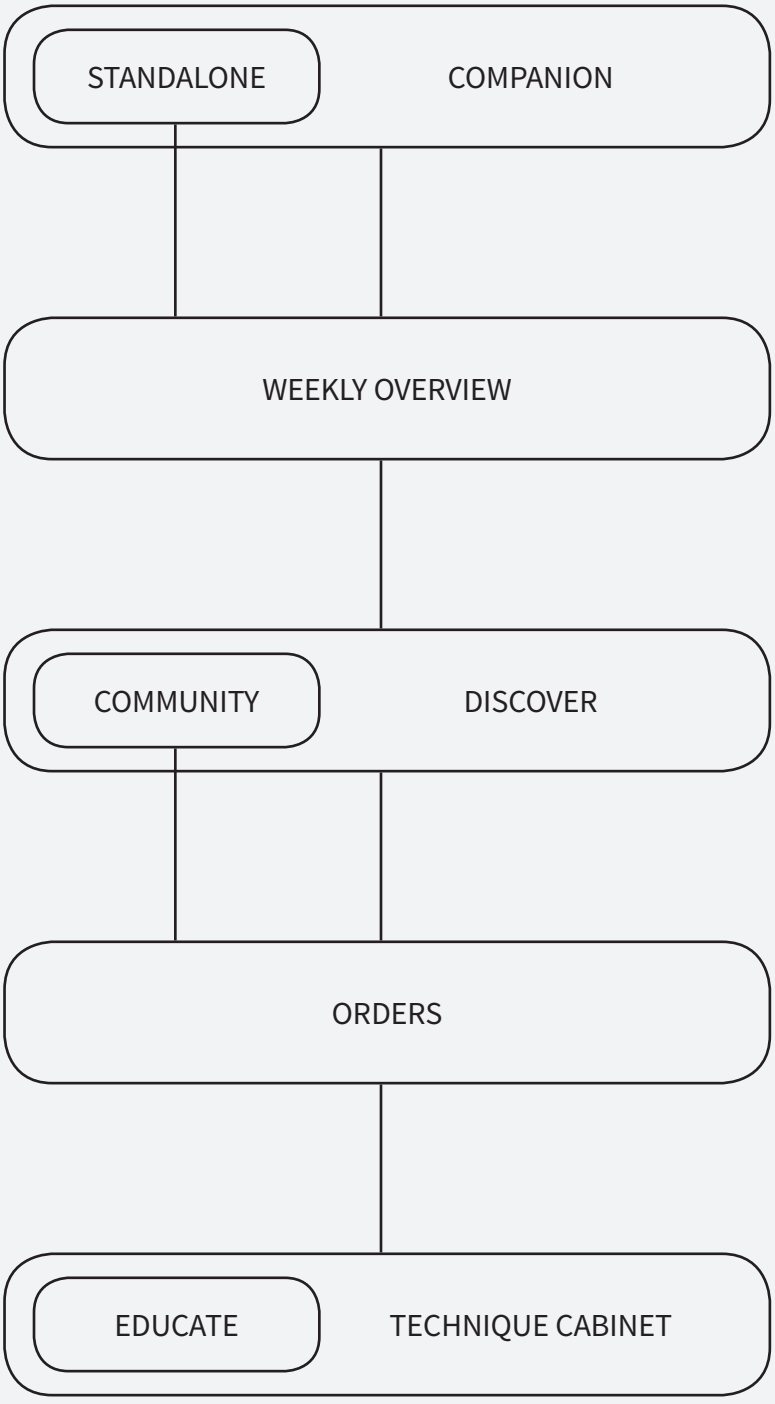
Our app was designed as a companion app to our Echo Gourmet system. We wanted to make sure it included everything someone might need to plan meals, learn about what they are eating, and manage all of their deliveries. This approach led us to realize that the app could also work as a standalone meal planning app, so we decided to flesh out the recipe card interfaces as well as create more features like community based articles and suggestion to increase engagement.

Our main goal with this app was to mirror the design intentions of our physical products. We wanted the interface to feel comfortable and we wanted users to feel like they were learning something while they were using it.

To make the app easy to use and understand we decided to closely follow Apple's design guidelines. This means that views and layouts are standardized to Apple's specifications. Things like the 5-tab navigation, poppable cards, and standard navigation controls lends the app to feeling more familiar than most third party apps do. While it may seem blasé our goal was to help users interpret the large amount of information that the app presents in easy to understand chunks. We also made sure that the interface uses specific visual cues as well as warm langauge to create a more conversational emotional feel.

Learning is embedded in the app in almost every part, not just the educate tab. We decided to make sure that recipes present themselves as more of a product. Each one features technique videos, reviews, and more to engage users beyond simply looking up information.

We simply wanted the app to feel like a sort of hub for your meal ideas and hope that by combining better layout and Amazon's information dense design we can make a design that encourages user engagment.


STANDALONE
COMPANION
WEEKLY OVERVIEW
COMMUNITY
DISCOVER
ORDERS
EDUCATE
TECHNIQUE CABINET

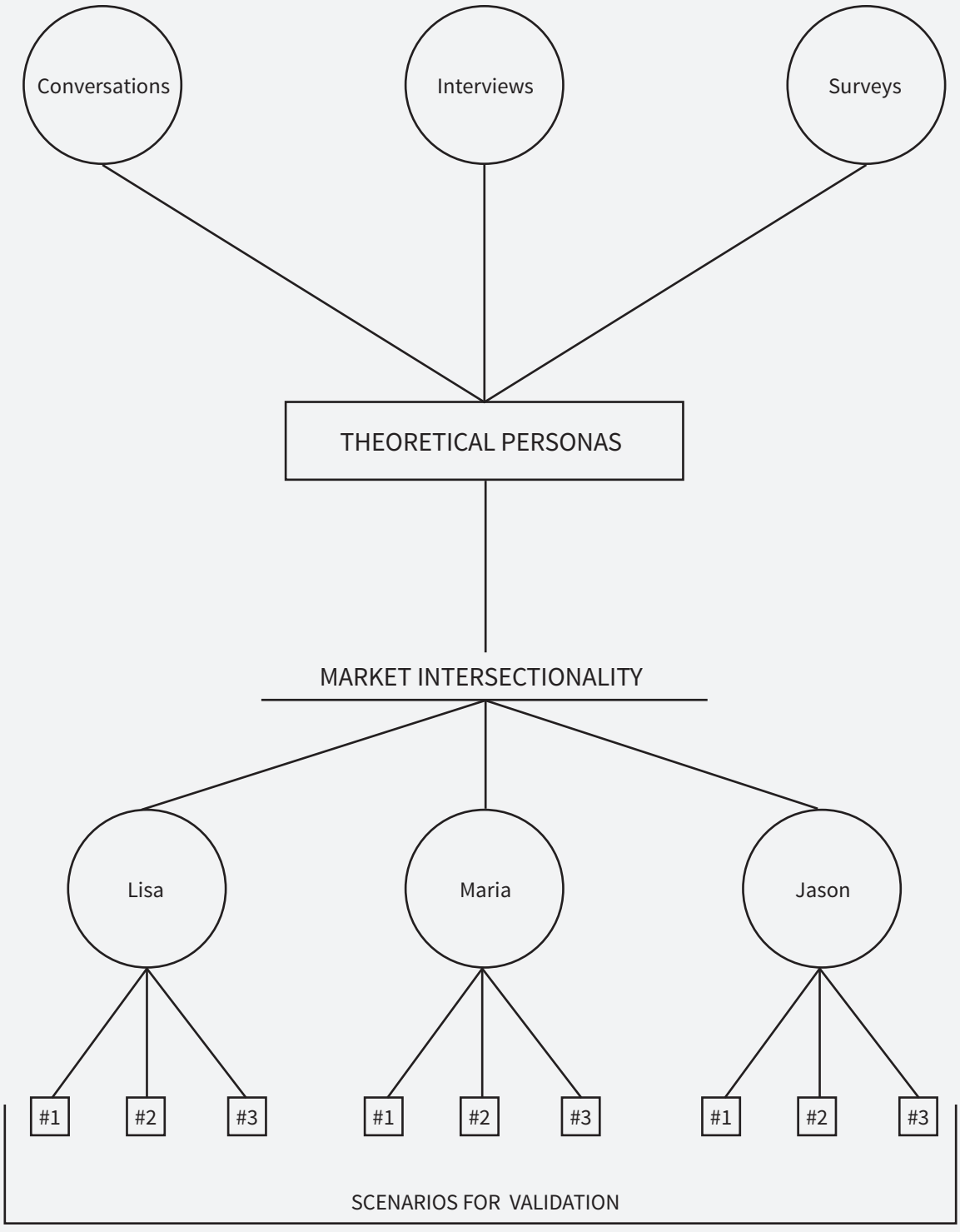
PERSONA GENERATION.

When looking to position our project we spoke with many people personally about their daily interactions with artificial intelligence and willingness to be taught by such a device. We found that more often than not younger people, 20-35 years old, were more likely to be interested in an idea such as this. We codified this by conducting interviews with a couple professionals and then finally confirming our thoughts by using online surveys.

Our demographic can be summed up as “millennials plus.” Millennials are defined as people born from the late 70s to the mid 90s. The term is often thrown around today to refer to all young people, but you would find that people who were born in the late 90s and early 00s are much different than a millennial. We are reaching back to the oldest millennials, late 20s early 30s, who have established their lives and have become consumers and also roping in adolescents who have grown up in a completely digital world. We strongly believe that both of these categories have a lot of idealogical overlap and moving forward will continue to influence and shape consumer technology for the next two or three decades.

We have decided on a triple-pronged approach that covers people who are close in age, but in different life situations. This approach allows us to generalize who we are selling to from a demographic viewpoint while allowing for a focus on the general stages of life our users inhabit. We hope that this approach leads to a more inclusive design that targets people’s actual needs over trends and desires. This is part of our exploration into creating a more ethical “blueprint” for future tech projects and will be revisited as we conclude our project.

Lisa Hong is our emobdiement of a young student, Maria Rivera emobodies a young professional just starting her life, and Jason is our character who has started a family and established himself in his career.


Conversations
Interviews
Surveys
THEORETICAL PERSONAS
MARKET INTERSECTIONALITY
Lisa
Maria
Jason
#1
#2
#3
#1
#2
#3
#1
#2
#3
SCENARIOS FOR VALIDATION

LISA HONG.
YOUTHFUL TECHNOCRAT.

HARD FACTS

Age : 21

Location : Boston, Massachusetts

Occupation : Student

Finances : On a food budget of $100 a week from her parents.

INTERESTS AND VALUES

Lisa is a mechanical engineering student at MIT. She loves taking things apart and understanding how they work. She normally is pretty busy during the week and doesn't have too much time for things outside of school. To blow off steam Lisa likes to hang out with her friends and go out for dinner. She is increasingly wary of the amount of tracking and data collection that companies have implemented. She likes to support companies that are transparent and upfront about how they use data. She hopes that in the future companies are more ethical entities.

TECHNOLOGY USE

Lisa is a heavy techonology user. She owns a laptop, an iPad, and always has one of the flagship cellphones. She has to use CAD programs regularly to visualize projects for class, so she would consider herself a power user. She doesn't currently own any smart products, but her parents have an Alexa at home and was thinking about asking for one for her birthday.

FUTURE GOALS

Lisa wants to graduate and get a job. She understands that the future needs to be planned for and she has worked hard to secure internships to get job experience. She hopes that when she finally gets a job that she can make an impact on how technology shapes the world. She knows that she eventually wants to start a family, but hasn't quite decided if that includes chidren or not. She wants to be the best person she can be and make a name for herself.

A DAY IN THE LIFE

Lisa normally doesn't have classes in the morning (she scheduled them that way), so she can wake up and have time to relax and greet the day. She normally either eats something small for breakfast or just has some coffee. Since her classes are during the middle of the day she normally grabs something quick from a local restaurant. She gets home around 5pm and starts studying. Sometimes she meets up with friends, but normally studies better alone. Around 6:30pm she makes or orders dinner. The busier she is the more likely she'll order something from Uber eats. She wishes it was easier to find time to find recipies and shop during the day so she could save money and cook more meals at home.

QUICK QUOTE

"I just wish it was easier to find the time to discover new recipes and go shopping during my busy week."

LISA'S USE SCENARIOS.

SCENARIO // 01

Lisa has had a very long day of studying and wants to make something quick. She has been trying to cook real meals more often as she wants to get better at cooking. While riding the bus back to her apartment she checks the quick-recipes section and checks what is available. From the stuff she has in her fridge her app tells her she can make a chicken and rice dish, grilled cheese, or a chicken walnut salad. She's not really feeling any of these and selects an option that allows her to see recipes that need more ingredients. Instantly she see's a quick one-pot chicken curry that sounds good and clicks on the recipe card. It shows her that it takes around 35-40 minutes to make it and it has a 4.1/5 star rating with people saying its pretty good for being so fast. She decides she wants to buy the extra ingredients and hits the "purchase what I don't have" button. She gets home and checks her app to see that she is 9th in line and her delivery will be here in around 45 minutes. She turns on the tv and watches a show online waiting for her groceries to arrive. After she recieves her groceries and she starts the recipe her Alexa unit guides her through the process, explaining why you toast the spices first before adding any other ingredients. Lisa finishes and Alexa asks if she wants to allow her data to be uploaded to help inform others. She says yes and after a quick taste test rates it a solid 3.8 stars in her app.

SCENARIO // 02

It's the weekend and Lisa's two best friends were talking about getting together for dinner. Lisa mentioned that she would love to cook for everyone. One friend tells her that she shouldn't eat too much dairy as she's lactose intolerant and the other said she's been vegetarian as of last week. Lisa says its no problem and pulls out her phone. She filters recipes by adding a vegatarian and dairy-free filter and finds a coconut veggie soup and a recipe for a quick apple crumble. The app lists the time for total cooking to be 1 hour and says that Lisa has everything but a few apples for the crumble. Lisa decides to pick up the apples on her way home. She texts her friends that dinner will be ready around 6:30 (in about 2.5 hours) and that they can come over around then. Lisa gets home and starts up the recipe plan. She's made curries before, but this soup is blended as a last step. She's never really done this before and ask's her Alexa if its necessary. Alexa tells her that it is not and if she likes the texture of the vegetables to skip the last step. Lisa keeps that in mind for the future and lets the soup simmer while she makes the crumble. Before long its 6:30. Her friends arrive and they eat the first course. They are both surprised that Lisa is such a great cook! When the crumble is revealed as a second course everyone digs in. Her friends tell her that it was a 5/5 meal and Lisa is happy.

SCENARIO // 03

Its winter break and Lisa has been super bored. She decided to learn how to cook classic French cusine as she's always seen it on tv, but never had or made any of it herself. She decides she doesn't really want to search through an app and asks her Alexa unit what she should make if she wants to learn the basics of French cooking. Alexa tells her that French cooking itself contains many simple techniques that are layered to create something unique. Together they craft a schedule and plan so that Lisa can learn everything she wants. Alexa tells her that that French food is a little expensive sometimes and confirms a small shift in her weekly food delivery budget. Lisa accepts the change with the caveat that it will be revisited after the current week ends. Over the next two weeks Alexa creates a sort of bootcamp for French cooking based on highly rated simple French dishes the commuity has made before. When Lisa starts her new cooking routine the following week she is asked if she would like to participate in analytics that help others cook better as well. Lisa asks exactly what the data will be used for and Alexa tells her that it is added to a model that allows Amazon to better customize user input. Lisa says yes, but as she lies in bed that night she decides she doesn't want to. She pulls out her phone and revokes the consent. Two weeks pass and Lisa considers herself a professional French home cook.

POSSIBLE DESIGN OPPOURTUNITIES.

- Allow for all potential quick glance info to be available on the home screen

- Expand what it means to teach a user how to cook, allow them to ask questions

- Let a user set dietary restrictions

- Allow a user to revoke consent to data tracking and analystics via app and voice interface

- Allow a user to set budgetary constraints

- Have the entire system be aware of what is in the fridge and pantry at home

- Allow for a rating system so users can quickly pick out food they might like

MARIA RIVERA.
FRESH NATURALIST.

HARD FACTS

Age : 27

Location : Austin, Texas

Occupation : Accountant

Finances : Makes 65k a year on her own, but combined with her husband, they make 150K.

INTERESTS AND VALUES

Maria is a very active woman. She is expecting her first child in a month and is ready to start a new chapter in her life. Maria has always been into keeping a healthy diet, but decided that she would take it a step further and go vegetarian for the pregnacny. Maria values her time off work. She enjoys traveling with her husband, even if it is only to a new state park. Recent events relating social media and modern technology to abnormal development of young people has worried Maria. She is hoping that by the time her baby is old enough that we have figured out what is and isn't ok to expose young people to. She is a hard worker and gives everything she does 110% effort.

TECHNOLOGY USE

Maria has a work laptop and her husband and her own a smart tv. While at home she doens't use much technology. She uses Facebook to keep up with famiy and Instagram to keep up with friends. Technology plays an important role in her life, but isn't her main interest.

FUTURE GOALS

Maria's main goal is to have a family and a career. She wants to get back to work as fast as possible so that she can continue to rise through the ranks. While she enjoys her time off work she also wants to be an inspiration for other woman to achieve whatever they want to do. She hopes that her and her husband can eventually save enough money to buy a home instead of renting the condo they currently stay in. `

A DAY IN THE LIFE

Maria gets up around 6am so that she can do her morning yoga before work. She normally has a fruit smoothie with protein powder for breakfast. Her commute to work is pretty long, but once she gets to work she is ready to start the day. She normally gets lunch with her coworkers in the cafeteria at work. When she gets home her husband and her like to cook dinner together. Its a great bonding experience. It feels like they make the same thing too often though as neither one has time to really explore recipes or spend hours at the store. They wish they had the time to discover new cuisines that fit their dietary needs.

QUICK QUOTE

"Being vegetarian is pretty hard. We don't have time to learn about new recipes and that means we eat a lot of tofu stirfrys."

MARIA'S USE SCENARIOS.

SCENARIO // 01

Maria is excited to be entertaining for her friends this weekend. Around 8 people have RSVP'd for the dinner party, but Maria is drawing a blank on what to cook. She has been searching for recipes online, but is haivng trouble creating a cohesive theme for her dinner party. She decides to see what her Alexa unit can come up with. She asks Alexa if there is a way to plan a dinner party. Alexa tells her that she can make a list of recipes based on Maria's skills and normal diet to create something for her. She'll ping Maria when she's done.

About an hour later Maria gets a notification from her app and opens it. A list of 5 dishes is prepped for her to make. It tells her that it has selected all of the dishes so that they can made a day before and finished the day of. It reminds her that a dinner party is more fun if you aren't stuck in the kitchen and gives her tips on when she should start each dish. Maria sees that she has almost everything on this list coming in her normal weekly shipment, but needs a few specialty items. She sees that some of them are not local items and asks Alexa if she can tweak some of the recipes to include local substitutions. Alexa processes for a few minutes and presents a new list of slightly tweaked recipes. Maria is happy that her money is going towards local farmers and producers.

SCENARIO // 02

Maria has been feeling pretty weary the past few weeks. A couple of online searches reveal that she might have an iron deficiency. Before she goes to the doctor or buys some vitamins she decides to check the nutritional info of the food she's eaten recently. She pulls out her app and goes to the nutritional info. Over the past 4 weeks Maria has been eating around 17mg of iron. She asks one of her Alexa units if that is enough and it says yes, but if you are pregnant you need to increase your intake by about 10mg per day. She decides that she can do that and adds 10mg iron supplements to her next food delivery order. The app notes that she's pregant and asks her if this can be linked to her nutritional data for further analytics. Maria decides that it's ok and the app says it will ask her again in a week. Now that Maria has indicated that she is pregnant Alexa will try to avoid recommending dishes high in mercury.

Later that week Maria's app sends her a notification to tell her that with her daily iron supplement her average she is around 26mg per day. Maria decides that she has been feeling better and sends a feedback message to Amazon support detailing how Alexa helped her. She hopes that her feedback can help other expecting mothers.

SCENARIO // 03

Lisa's husband has been complaining about always eating vegetarian. He wants to eat meat at least sometimes. While Lisa doesn't want to go back to her old diet she realizes it's not fair to enforce her diet on her husband. As a compromise she tells her husband that she'll try to make some meals with meat. When she goes to change her dietary restrictions her app asks why she is switching her preferences. She selects an option that says "I miss meat." The app displays a warning that says it can try and find vegetarian meals that contain more umami flavors that might sastify cravings for meat. Lisa decides that this is a good idea and wants to try a few recipes before giving up on her diet completely.

Later that day Lisa's delivery arrives and has a few new items she's never seen before. She's excited to try a new dish. The dish ends up being a veggie stuffed mushroom. It looks good, but as Lisa and her husband dig in they both make a face. They decide that this was pretty bad and now they have nothing to eat for dinner. Lisa opens her app and opens a chat with customer support she tells them about her experience and they are quick to credit her back for the food. They also offer to treat her to a $20 credit to order something off of Amaon's restaurant delivery service. Lisa and her husband order a meal from a local cafe and are happy with how easy it was to fix their ruined dinner.

POSSIBLE DESIGN OPPOURTUNITIES.

-Meal planning

- Notifications

- Allow for user to prefer local sources of food

- Ability to check nutrition info

- Alexa should be flexible and personable

- Permissions for healthkit and other health info

- Message support

- Easily change dietary restrictions

-Make refunds and exchanges easy and painless

JASON WELLS.
DILIGENT DAD.

HARD FACTS

Age : 33

Location : Seattle, Washington

Occupation : Unemployed

Finances : Jason is a stay-a-home dad and his husband works as a project manager at Google making around 200k.

INTERESTS AND VALUES

Jason and his partner were both programmers when they met on a dating site. After they got married their lives changed when they decided to adopt a child. One succesful adoption later and Julia became a huge part of their family. Jason's husband was promoted and together they decided that Jason should be a stay-at-home dad. Jason loves spending time with his daughter and enjoys getting away from an office and a computer for the first time in his life. In his free time he likes to game, play board games, and go to the bar with friends. He sees technology as a wonder and is glad he gets to live in a world where almost anything is possible.

TECHNOLOGY USE

Jason was a computer nerd growing up and never stopped. He knows the ins and outs and can reliably build a PC with just parts and a motherboard manual. His home features multiple smart products and he loves buying the newest tech toys.

FUTURE GOALS

Jason's future is sort of up in the air. Him and his husband are happy in their relationship and have been thinking about adding another child to make it a much more even four. He hopes that in the future technology can provide him with the means to care for his children, but also indulge his hobbies a bit more. There's a shed out back that he's always wanted to turn into a tinker shop, but has just never found the time.

A DAY IN THE LIFE

Jason gets up a 6:30am to get breakfast ready for his husband and their daughter. Julia's school tranport comes at 7:30 so she has to be ready and fed by then. Once everyone is out of the house Jason likes to plan dinner and then heads out to the store to buy food. After he gets home he cleans a bit and works on personal projects or reads a book. He is ready at 3pm for Julia to come home. He helps her get a snack and they work on her homework till Jason's husband gets home. Jason cooks dinner and as a family they play a board game or watch a tv show. Julia is in bed by 8:30 and Jason follows soon after as he has to get up early the next day. He wishes he had more energy during the day to do more.

QUICK QUOTE

"My family is awesome, but sometimes I wish I had more time for me."

JASON'S USE SCENARIOS.

SCENARIO // 01

Jason is wondering what the new kitchen system from Amazon is like? He's had a first generation Echo unit for over a year now and while it's good for playing music and turning off his smart lights it doesn't really do anything he couldn't do before. He's skeptical, but the new system has a free 30-day trial period and he decides to order it.

It arrives two days later and Jason begins the setup. He sets up the main unit, but when he tries to connect the sensors, one of the camera units doesn't turn on or connect to the main unit. This prompts him to use the apps technical support feature and after the tech confirms the sensor is dead on arrival a new sensor is shipped out and will be delivered in an hour.

An hour later an Amazon delivery driver pulls up and completes the exchange of the dead seasor unit. Jason connects the sensor and starts up the onboarding process. After setting up the unit the app prompts him to import nutritional data. He clicks yes and the data is pulled through HealthKit from his MyFitnessPal app. Alexa immediately processes the data and proposes a weekly menu. Jason hasn't made any of the dishes before and doesn't cook that often. He goes into the settings and selects novice as his cooking experience level. This changes the menu and notifies him that his unit will try and train him to be a better cook.

SCENARIO // 02

Jason's daughter has been a pretty picky eater recently. She has been refusing to eat what he's been making for dinner and Jason is frustrated beyond belief. Jason decides that he will ask his kitchen system for tips related to food children will like. The system gives him some ideas for toning down the spices in the food they normally eat as well as giving him some ways to hide veggies in normal looking food.

Jason finds a recipe for psudo chicken nuggets. A way to make chicken nugget-like snack bites out of healthier ingredients. He decides that he'll try this recipe out to see if his daughter can be persuaded to eat slightly better. The system recommends that he use a food processor for the recipe and notes that it can order him one to show up the next day. He decides he'll try it out and return it if it doesn't do what it promised.

The next day Jason makes dinner as usual, but uses the new recipe. Jason's daughter is skeptical that her "chicken nuggets" are a weird shade of green on the outside, but decides to try it anyways. Even though it's not exactly like the chicken nuggets she normally has it tastes good enough when dipped in ketchup. She's happy and full and Jason is happy and glad that he doesn't have to struggle to make food that his daughter will eat.

SCENARIO // 03

Jason's husband has been telling him that he wished that they spent more time together during the evening. Jason has an idea that sounds great, but doesn't know if his husband will be ok with it. Jason asks his husband if he would like to help Jason cook dinner once a week as a sort of date-night. His husband thinks it's an interesting idea and agrees to try it out.

Jason goes to ask his kitchen unit if there are recipes that are slightly fancy and can be cooked in tandem with another person. His unit thinks for a bit and tells him to check his phone. In the Amazon Chef app a panel opens to display recipes meant to be made with two people. It details how to set up the sensors for two people. Jason creates a profile for his husband making sure to set the level at beginner.

Date night is finally here and Jason and his husband get started on creating a meal together. The system makes sure to help his husband a bit more making sure to explain technique and why he is doing certain things because his skill level is lower than Jason's. Together they end up making a killer dinner and enjoy it with their favorite bottle of wine. Jason's husband agrees that they should do this more often and he's glad it was so easy to make such a complicated meal.

POSSIBLE DESIGN OPPOURTUNITIES.

- Killer customer service

- On-Boarding

- HealthKit Integration

- Natural conversation

- Food for kids

- Co - Cooking

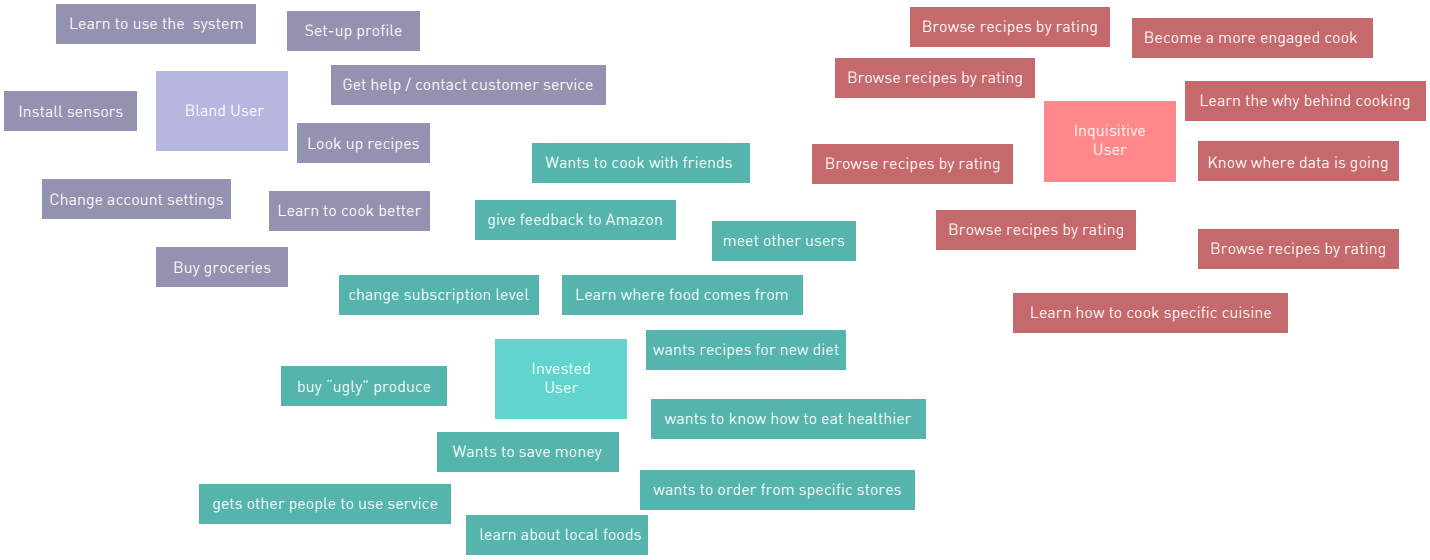
- Support for multiple user profiles

UID	DESIGN INPUT SPECIFICATION / DESCRIPTION	METHOD	RELATED TO
1.1.A	MUST GUIDE USER THROUGH SET-UP OF MAIN HUB		SET-UP
1.1.A.1	VERIFY THAT HUB IS CONNECTED AND POWERED ON	ERROR	SET-UP
1.1.B	MUST REGISTER MAIN HUB TO USER ACCOUNT		SET-UP
1.2.A	MUST GUIDE USER THROUGH SET-UP OF SENSORY ACCESSORIES		SET-UP
1.2.A.2	VERIFY THAT SENSORS ARE CONNECTED TO HUB	ERROR	SET-UP
1.2.B	MUST REGISTER SENSORS TO USER ACCOUNT		SET-UP
2.1	MUST PROVIDE SIMPLE GUIDANCE ON USABILITY OF THE INTERFACE		SENSOR / HOME
2.2	PROVIDES SECONDARY INFO FOR ALEXA GUIDED LEARNING SESSIONS		SENSOR / HOME
2.3.	ALLOWS A USER TO CHANGE SETTINGS SPECIFIC TO PHYSICAL ALEXA UNITS		SENSOR / HOME
2.4.A	PROVIDES FEEDBACK TO POTENTIAL FIRE	EXPERIMENTAL	SENSOR / HOME
2.4.B	PROVIDES FEEDBACK TO AIR QUALITY (SMOKE, GAS, ETC.)	EXPERIMENTAL	SENSOR / HOME
2.4.C	PROVIDES FEEDBACK FOR WATER CONTAMINANT DETECTION	EXPERIMENTAL	SENSOR / HOME
2.5	PROVIDES FEEDBACK VIA CAMERA FOR HOME SECURITY	EXPERIMENTAL	SENSOR / HOME
2.6	ALLOWS A USER TO CHANGE VOICE PREFERENCES (STYLE) FOR ALEXA		SENSOR / HOME
2.7.A	SHOWS A USER A VISUAL FOOD TRACKING DISPLAY (FOR FOOD WASTE)		SENSOR / HOME
2.7.B	SHOWS A USER A LIST OF FOOD TRACKING INFO (FOOD THAT WILL GO BAD SOON)		SENSOR / HOME
3.1.A	EDUCATES USERS ABOUT THE INDIVIDUAL ITEMS THEY ARE BUYING		EDUCATE
3.1.B	EDUCATES USERS ABOUT THEIR LIFETIME IMPACT / TRENDS		EDUCATE
3.1.C	PROVIDES A WAY TO SEE COMMUNITY TRENDS		EDUCATE
3.2	PROVIDES AN INTERFACE FOR USERS TO LEARN ABOUT WHERE THEIR FOOD CAME FROM		EDUCATE
3.3	EXPLAINS HOW EATING SEASONALLY CAN BENEFIT LOCAL FARMERS AND THE ENVIRONMENT		EDUCATE
3.4.A	EXPLAINS DIFFERENT DIETARY NEEDS		EDUCATE
3.4.B	EXPLAINS DIFFERENT CULTURAL FOODS		EDUCATE
3.4.C	EXPLAINS ETHICAL DIETS (VEGANISM, VEGETARIANISM, ETC.)		EDUCATE
3.5	ALLOWS USERS TO COOK VIA INSTRUCTION FROM OTHERS	EXPERIMENTAL	EDUCATE
3.6	ALLOWS A USER TO TRACK NUTRITION INFORMATION		EDUCATE
4.1	PROVIDE USERS A WAY TO DISCOVER NEW FOOD		EXPLORE
4.2	PROVIDE USERS A WAY TO DISCOVER NEW RECIPES		EXPLORE
4.3.A	PROVIDES A WAY FOR USERS TO REVIEW PRODUCTS		EXPLORE
4.3.B	PROVIDES A WAY FOR USERS TO READ OTHERS USERS REVIEWS		EXPLORE
5.1	ALLOWS A USER TO PURCHASE FOOD		SHOP
5.2	ALLOWS A USER TO PUR1CHASE FOOD KITS		SHOP
5.3	ALLOWS A USER TO PURCHASE FOOD “DROPS” (CURATED FOR THEM)		SHOP
6.1.A	ALLOWS A USER TO TRACK A CURRENT DELIVERY	MAP VIEW	DELIVERY SERVICES
6.1.B	ALLOWS A USER TO SCHEDULE DELIVERIES		DELIVERY SERVICES
6.1.C	ALLOWS A USER TO SEE REAL-TIME DELIVERY INFO		DELIVERY SERVICES
7.1	ALLOWS FOR A USER TO ACCESS THEIR AMAZON ACCOUNT		ACCOUNT
7.2.A	ALLOW A USER TO CHANGE SUBSCRIPTION TERMS		ACCOUNT
7.2.B	ALLOWS A USER TO CANCEL THE SUBSCRIPTION AND INITIATE RETURN ON PHYSICAL UNIT		ACCOUNT

UID	DESIGN INPUT SPECIFICATION / DESCRIPTION	METHOD	RELATED TO
7.3.A	ALLOW A USER TO SPEAK WITH TECHNICAL SUPPORT IF SYSTEM CANNOT BE SET UP		ACCOUNT
7.3.B	ALLOWS A USER TO LODGE A COMPLAINT ABOUT A PRODUCT OR THE SERVICE		ACCOUNT
7.3.C	ALLOW A USER TO REMOVE SENSOR / HUB FROM USER ACCOUNT		ACCOUNT
7.4	VERIFY THAT PAYMENT INFO IS UPDATED	ERROR	ACCOUNT
7.5	ALLOWS FOR INTEGRATION WITH OTHER AMAZON SERVICES (KEY, PRIME NOW, ETC.)	EXPERIMENTAL	ACCOUNT
7.6	ALLOWS A USER TO CREATE A NUTRITION PROFILE		ACCOUNT
8.1	EXPLAINS TO A USER WHY AMAZON CHOSE TO DESIGN THIS SYSTEM		ABOUT
9.1	ALLOW A USER TO SET DIETARY RESTRICTIONS	PREFERENCE PANE	PREFERENCES
9.2.A	ALLOW A USER TO SET CULTURAL FOOD PREFERENCES	PREFERENCE PANE	PREFERENCES
9.2.B	ALLOW A USER TO SET FLAVOR BASED FOOD PREFERENCES	PREFERENCE PANE	PREFERENCES
9.2.C	ALLOW A USER TO SET COST-BASED FOOD PREFERENCES	PREFERENCE PANE	PREFERENCES
9.3.A	ALLOWS A USER TO OPT IN TO SUPPORTING LOCAL FOODS		PREFERENCES
9.3.B	ALLOWS A USER TO OPT IN TO BUYING “UGLY” PRODUCED OR DAMAGED BOXES		PREFERENCES
10.1	MUST DECLARE DATA BEING COLLECTED FROM USER ACCOUNT (ONBOARDING)		PRIVACY
10.2	MUST DECLARE DATA BEING COLLECTED FROM SENSORS		PRIVACY
10.3	PROVIDES USERS WITH ETHICAL DATA SHARE NOTIFICATIONS	NOTIFICATION	PRIVACY
10.4	SHOWS HOW A USER’S DATA IS BEING PROCESSED AND USED	DATA SECURITY	PRIVACY

POTENTIAL SOFTWARE REQUIREMENTS.

To move the app design process along we created a huge list of everything that our app could potentially offer users. We then organized the list by assigned a section of the app we believe it could live in. We then codified how each section should be structured using a #.#.ltr.# scheme. This will allow us reference and codify every interaction that could take place within the app. We think of this as a living document that we are internally updating the entire time to make sure our organization is spot on. This sort of super logical brainstorming activity is interesting as it allows us to see what parts of the app potentially need to be more fleshed out and where the bulk of the work will take place.



INITIAL USER FLOWS | 02.12.18

Part of any UX/UI process is taking the goals and user needs and morphing them into different visualizations. This is sort of like the sketching we do in traditional product design. It allows us to abstract our thoughts and create a plan for a cohesive final project. It also allows for iteration and thus conversations about the design to help guide us moving forward.

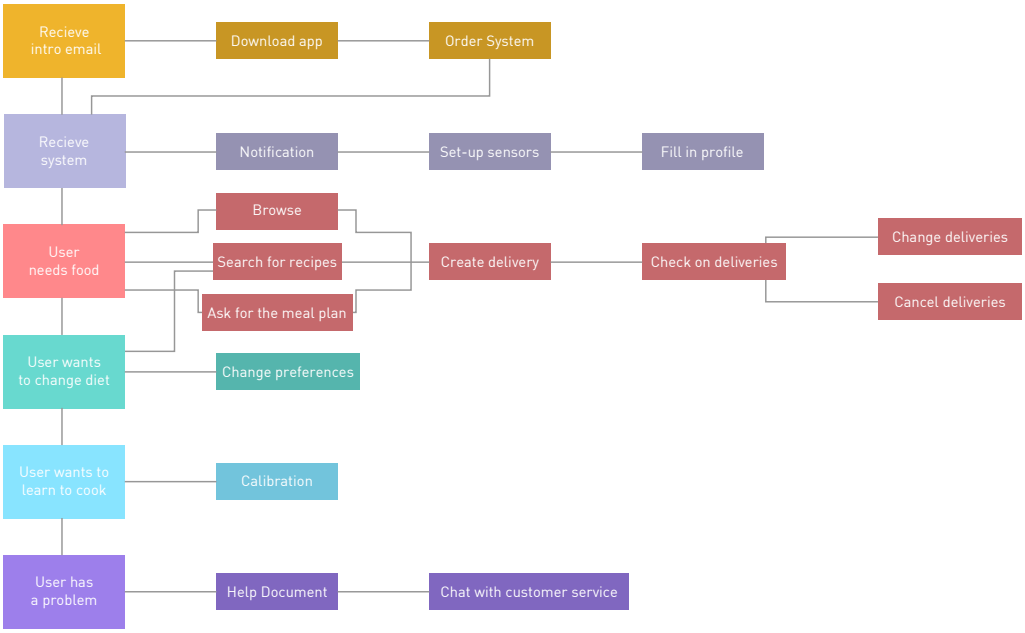
To create the Echo Gourmet companion app we first identified what types of users will be regularly using the app. From there we create simple user flows for each part of the app. This makes it easy to understand how many parts the app needs and also make sure we aren't missing any important features.

Next we created a system architecture. This is used to plan out potential flows of iteraction and easily run through typical usage scenarios. It acts as a web of ideas for screens that can be used to create a wireframe.

The next step was the start of the fun part. We created a basic gray wireframe and then ran through a few basic information finding scenarios we potential users. This helped us iterate and decide on a final direction.

The final direction is displayed as an information architecture, which shows how the actual screens of the of the app interconnect. This along with an asset package could be handed off to a developer to be coded up and tested. Sadly, we aren't developers. Instead, we created a set of feature images to explain the main parts of the app as well as a full, working interactable prototype that will be available at our show.

SYNTHESIS / CREATION.



“INFORMATION ARCHITECTURE IS AT THE VERY CENTER OF THE ELECTRONIC INFORMATION STORM. WITHOUT EFFECTIVE MEANS TO STRUCTURE AND PRESENT THE INFORMATION WE PRODUCE WE ARE BLOWN ABOUT BY THE VAST QUANTITIES AND THE VARIABLE QUALITY OF THAT INFORMATION. IA PROVIDES YOU A DEEP KEEL AND A STRONG RUDDER TO SURF ABOVE THE WAVES OF INFORMATION THAT BUFFET YOU.”

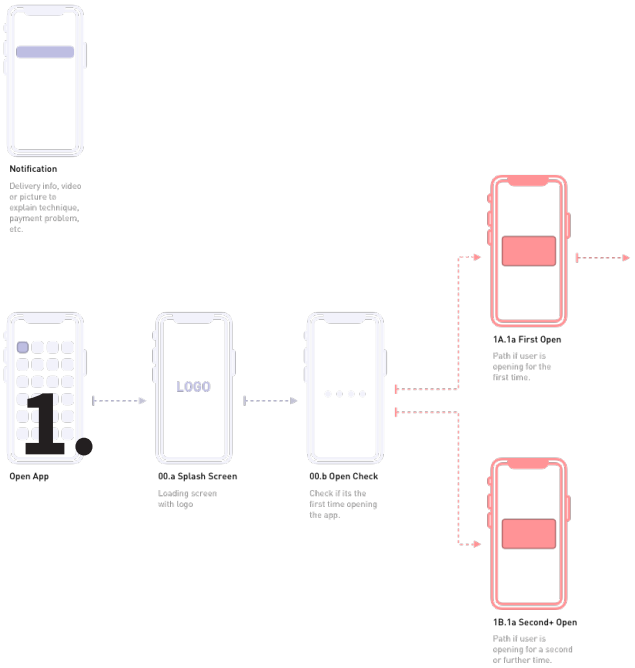
-BOB BOIKO

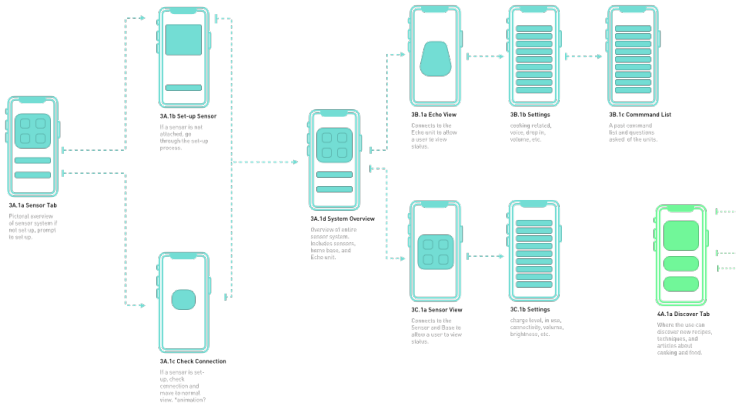
SYSTEM ARCHITECTURE 1.

The first system architecture was created with the idea that the opening screen of the app would be a tab detailing info from the Echo Gourmet sensors and your other Echo products.

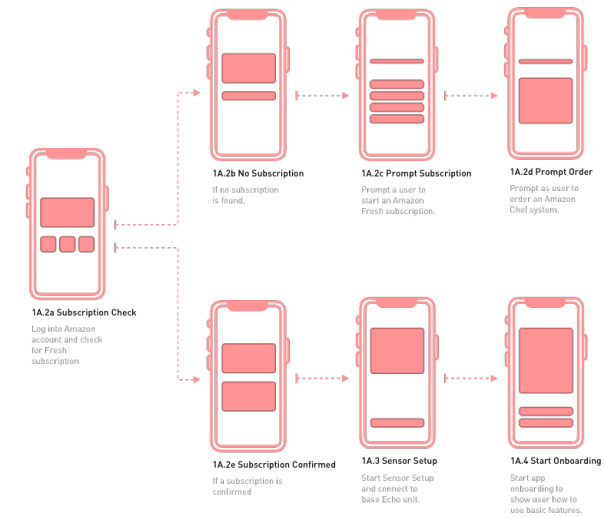
The app included a persistant button at the top of the screen that gave a user access to a weekly overview. This was made with the idea that it would be infromation that someone would want to look at at least once a day and maybe a few times a day.

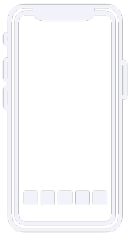
We showed this to a few of our friends and finally one of our professors. Our professor simply pointed out that he wouldn't really care about the status of all of the sensors. He would rather always have easier access to the weekly overview. We confirmed this with a few other people and decided that we should create another version reflected that idea.





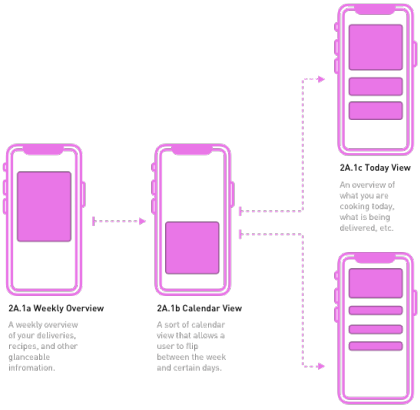
SYSTEM ARCHITECTURE 1 - REFORMATED FOR BOOK | 02.20.18

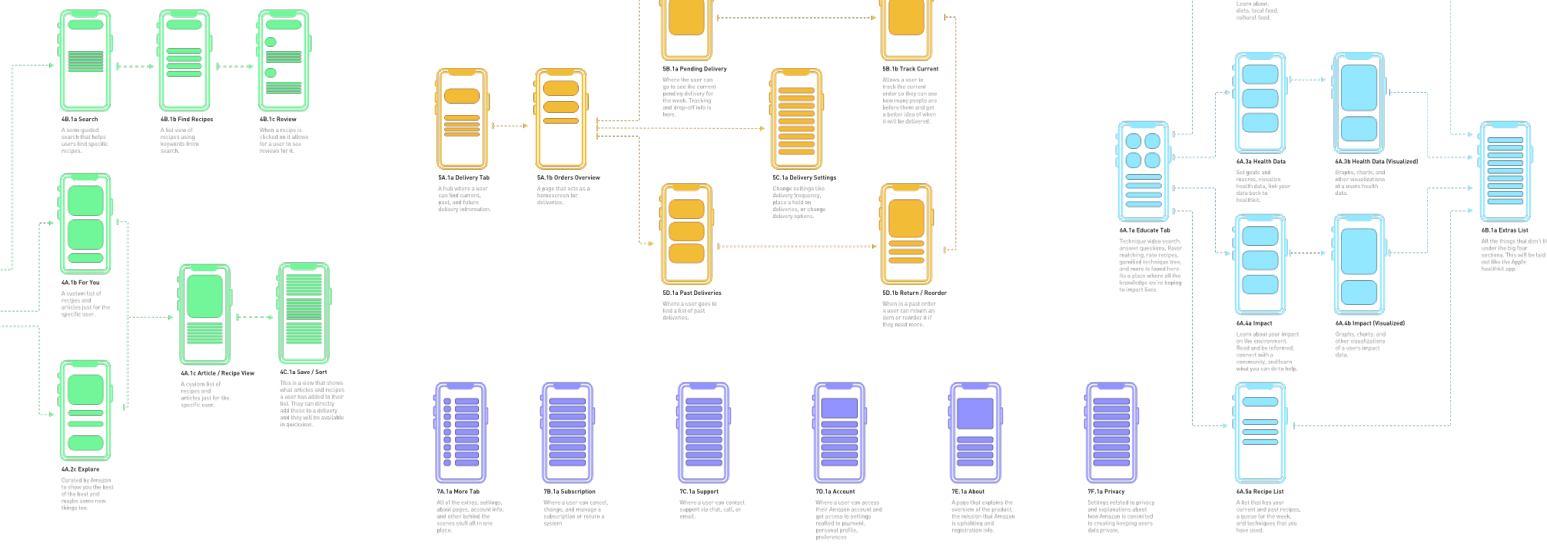




00.c Homescreen

The 5-tabbed interface. Not a screen, but an organizational concept.

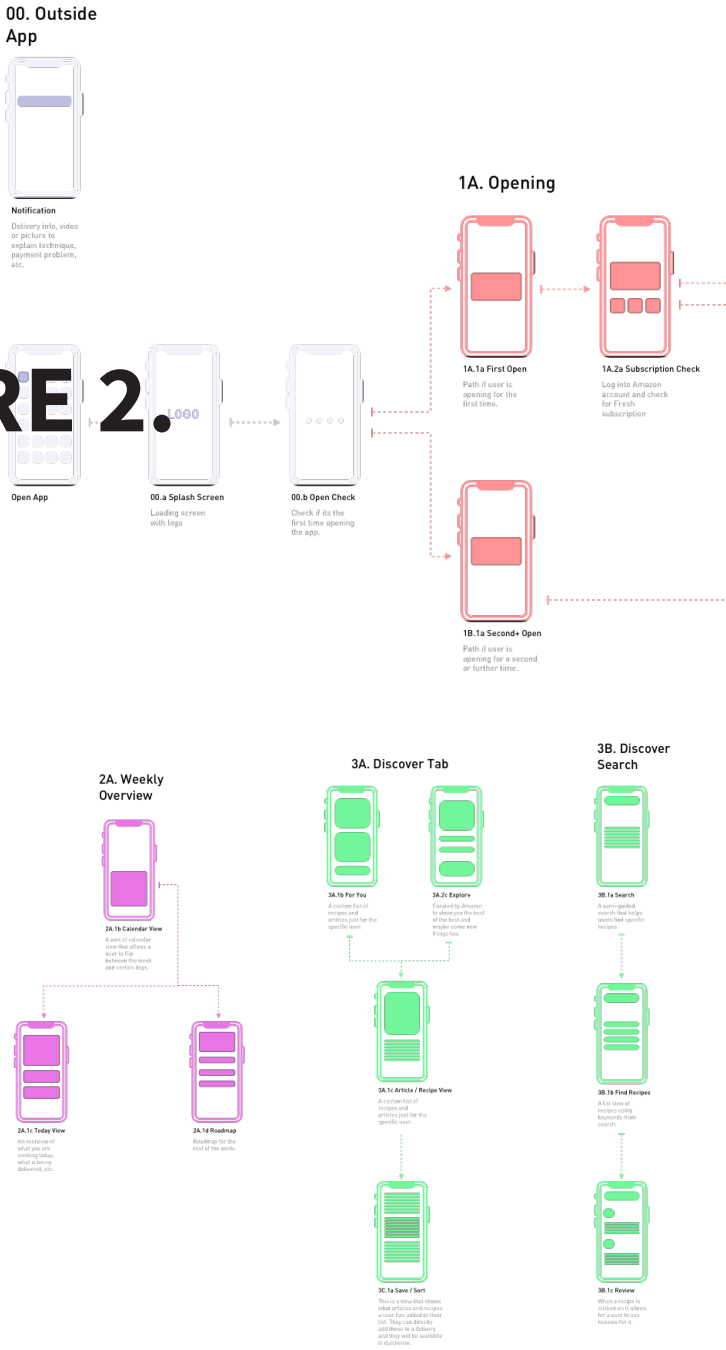




SYSTEM ARCHITECTURE 2.

The second system architecture felt a lot better. With the homescreen focusing on the weekly overview people understood the focus more. It felt a lot more like each of the tabs had a purpose that could be used every day.

To decide between the two we talked to people and show them the differences. People overwhelmingly decided that the architecture that focused on the weekly overview was the better one. We decided that we wanted to test it further so we decided to create wireframes for both and test them.

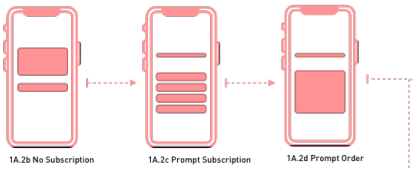


SYSTEM ARCHITECTURE 2 - REFORMATED FOR BOOK | 02.20.18

00.
Homescreen

00.c Homescreen

The 5-tabbed interface. Not a screen, but an organizational concept.



1A.2b No Subscription

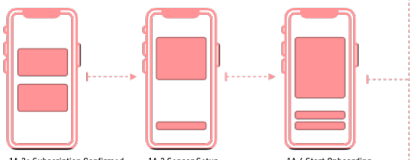
If no subscription is found.

1A.2c Prompt Subscription

Prompt a user to start an Amazon Fresh subscription.

1A.2d Prompt Order

Prompt an user to order an Amazon Chef system.



1A.2e Subscription Confirmed

If a subscription is confirmed

1A.3 Sensor Setup

Start Sensor Setup and connect to base Echo unit.

1A.4 Start Onboarding

Start app onboarding to show user how to use basic features.

2A.1a Weekly Overview

A weekly overview of your deliveries, recipes, and other glanceable infromation.

3A.1a Discover Tab

Where the use can discover new recipes, techniques, and articles about cooking and food.

4A.1a Delivery Tab

A hub where a user can find current, past, and future delivery infromation.

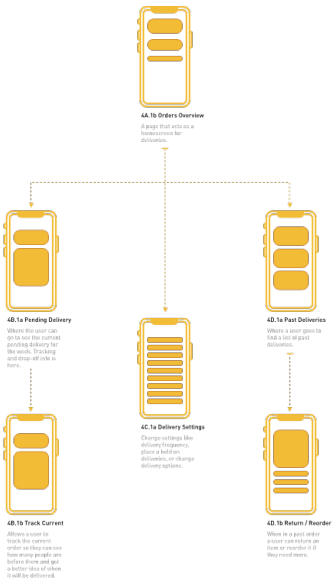
5A.1a Educate Tab

Technique video search, answer questions, flavor matching, rate recipes, gamified technique tree, and more is found here. Its a place where all the knowledge we're hoping to impart lives

6A.1a More Tab

All of the extras, settings, about pages, account info, and other behind the scenes stuff all in one place.

4A. Delivery Tab



4A.1b Orders Overview

A page that acts as a homescreen for deliveries.

4B.1a Pending Delivery

Where the user can go to see the current pending delivery for the week. Tracking and drop-off info is here.

4D.1a Past Deliveries

Where a user goes to find a list of past deliveries.

4C.1a Delivery Settings

Change settings like delivery frequency, place a hold on deliveries, or change delivery options.

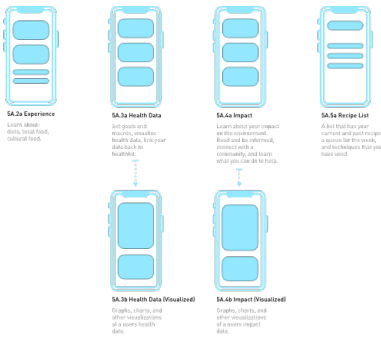
4B.1b Track Current

Allows a user to track the current order so they can see how many people are before them and get a better idea of when it will be delivered.

4D.1b Return / Reorder

When in a past order a user can return an item or reorder it if they need more.

5A. Educate Tab



5A.2a Experience

Learn about: diets, local food, cultural food.

5A.3a Health Data

Set goals and macros, visualize health data, link your data back to healthkit.

5A.4a Impact

Learn about your impact on the environment. Read and be informed, connect with a community, and learn what you can do to help.

5A.5a Recipe List

A list that has your current and past recipes, a queue for the week, and techniques that you have used.

5A.3b Health Data (Visualized)

Graphs, charts, and other visualizations of a users health data.

5A.4b Impact (Visualized)

Graphs, charts, and other visualizations of a users impact data.

5B. Extras

5B.1a Extras List

All the things that don't fit under the big four sections. This will be laid out like the Apple healthkit app.

6B. Sensors

6B.1a Sensor

Pictoral overview of sensor system if not set up, prompt to set up.

6B.1b Set-up Sensor

If a sensor is not attached, go through the set-up process.

6B.1c Check Connection

If a sensor is set-up, check connection and reset to normal view. "animation"

6B.1d System Overview

Overview of entire sensor system. Includes sensors, home base, and Echo unit.

6B.1a Echo View

Connects to the Echo unit to allow a user to view status.

6B.1a Sensor View

Connects to the Sensor and Base to allow a user to view status.

6B.1b Settings

cooking related, voice, drop-in, volume, etc.

6B.1b Settings

change level, in use, connectivity, volume, brightness, etc.

6B.1c Command List

A past command list and questions asked of the units.

6A. More Tab

6A.1b Subscription

Where a user can cancel, change, and manage a subscription or return a system

6A.1c Support

Where a user can contact support via chat, call, or email.

6A.1d Account

Where a user can access their Amazon account and get access to settings realted to payment, personal profile, preferences.

6A.1e About

A page that explains the overview of the product, the mission that Amazon is upholding and registration info.

6A.1f Privacy

Settings related to privacy and explanations about how Amazon is committed to creating keeping users data private.

GREY WIREFRAME.

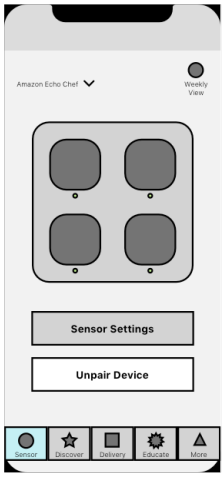
Our first wireframe was quickly created like a thumbnail sketch. It was important to make it as simple as possible. Different shades of gray were used to create a sort of visual hierarchy.

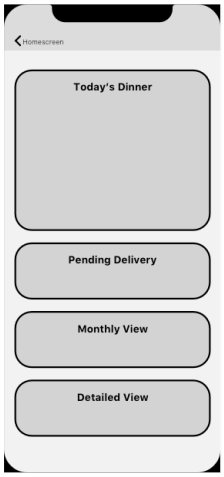
To make sure we kept iterating we decided to make two different wireframes. These acted as a sort of A - B testing that allowed us to run a paper prototype runthrough so we could choose the design that was the easiest to navigate.

Layout A was an interpretation of our first system architecture, which focused on the sensors.

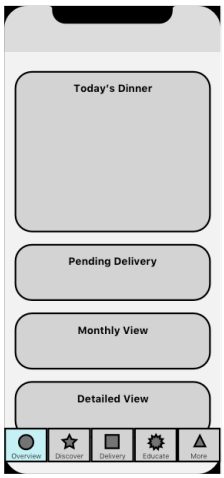
Layout B was our second system architecture and focuses on the weekly overview.

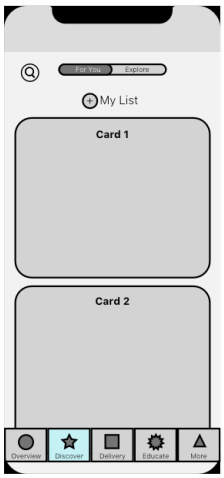
LAYOUT A



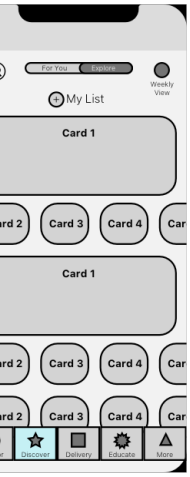


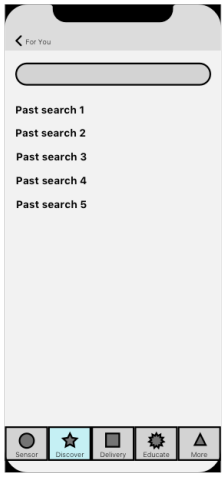
LAYOUT B

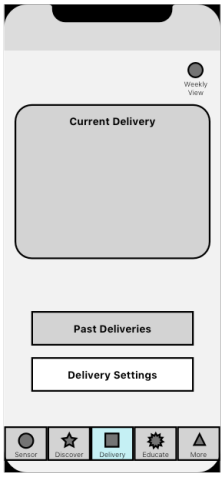


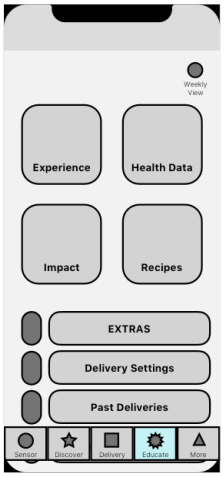


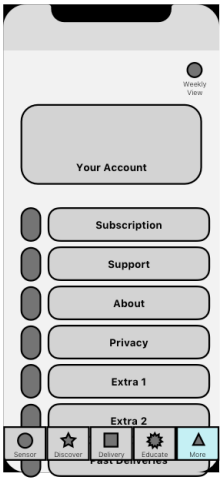
BOTH INITIAL WIREFRAMES | 02.24.18

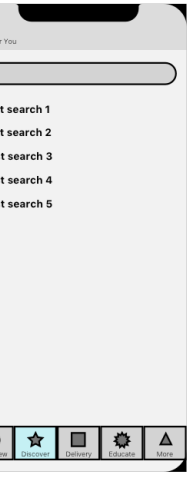

For You
Explore
Weekly View
My List
Card 1
Card 3
Card 4
Card 1
Card 3
Card 4
Card 3
Card 4
Discover
Delivery
Educate
More

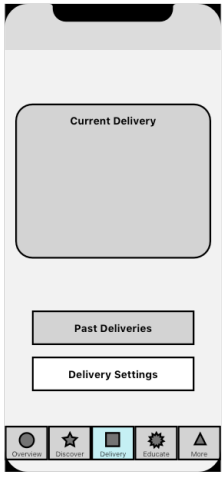

For You
Past search 1
Past search 2
Past search 3
Past search 4
Past search 5
Sensor
Discover
Delivery
Educate
More

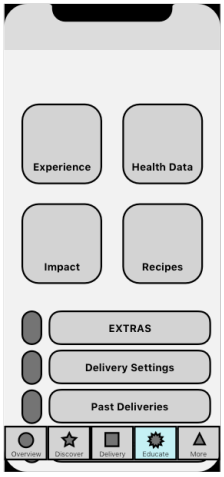

Weekly View
Current Delivery
Past Deliveries
Delivery Settings
Sensor
Discover
Delivery
Educate
More

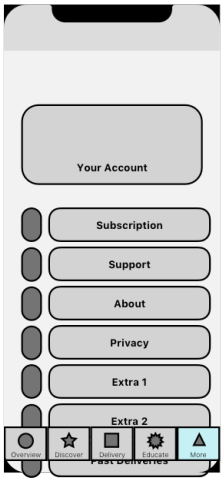

Weekly View
Experience
Health Data
Impact
Recipes
EXTRAS
Delivery Settings
Past Deliveries
Sensor
Discover
Delivery
Educate
More

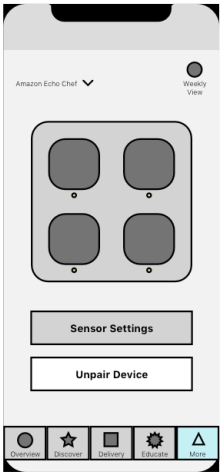

Weekly View
Your Account
Subscription
Support
About
Privacy
Extra 1
Extra 2
Sensor
Discover
Delivery
Educate
More


t search 1
t search 2
t search 3
t search 4
t search 5
Discover
Delivery
Educate
More


Current Delivery
Past Deliveries
Delivery Settings
Overview
Discover
Delivery
Educate
More


Experience
Health Data
Impact
Recipes
EXTRAS
Delivery Settings
Past Deliveries
Overview
Discover
Delivery
Educate
More


Your Account
Subscription
Support
About
Privacy
Extra 1
Extra 2
Overview
Discover
Delivery
Educate
More


Amazon Echo Chef
Weekly View
Sensor Settings
Unpair Device
Overview
Discover
Delivery
Educate
More

TESTING OUR 1ST WIREFRAMES.

To test our first wireframes we decided to create a sort of alpha testing. We created a small intro and two tasks to find what we deemed to be essential information. We ran through both wireframes with six classmates and got a lot of feedback that helepd us move forward.

David - He thought that it was a little convoluted to connect to the wifi and thought that the dietary preferences could be simplified. He added that it should also ask some other important questions like normal caloric intake, how healthy someone normally eats, and how many meals someone eats a day. Overall he felt that it made sense.

Tal - He was run through both task on each wireframe and had a lot to say about visual style. He had no problems accessing the info he needed, but said that it would have been easier with iconography that matched the text and with headings that stood out more. He wanted the typography to have more weights.

Emily - She definitely preferred Layout B. She thought that Layout A was a little confusing and didn't feel like the homepage connected to the rest of the app very well. "My gut tells me that if I had this system set up I would just leave it connected. Unless it was sending me annoying notifications." She also wanted the ability to add recipes from outside the app (interesting idea). The only thing that was confusing was the cards, but they didn't contain images so we noted that we should make sure they do in future test sessions.

Jack - He wanted a feature that allowed him add his food he already had as well as spices that he might already have. He also wanted to know if it could it have fridge tracking. He thought that the app was a good way to tie the system together.

Max - Max didn't have much to say about the app other than it seemed to be laid out well. He didn't have any problems finding any of the data points.

Winona - She was a little confused on how someone could use it without a device. Could it just be a food delivery service and recipe finder.

After sitting down with our classmates we decided to make sure the app was usable for anyone, not just people who were using an Echo Gourmet system. A lot of the features people requested were a little hard to test so we decided to get our basic funtionality across before starting on new ones.

Hi,

Welcome to the Amazon Echo Chef UI/UX alpha testing. You are going to be viewing a rough mockup of the Echo Chef companion app and running through a quick scenario to get feedback on layout and potential content.

The alpha design is presented in simple grey block wireframe format and is simply strung together to move between screens like an interactive powerpoint. You can click anywhere on a screen to show where the screen has interaction points. If at any time you get stuck, note where you got stuck and why and have the interviewer help you navigate. You may type notes in the open document to the left.

Thank you for your participation.

Task A : Run through initial setup of the device and give feedback on whether the questions asked are enough to create a general profile for you.

Task B : Try to find the screen that might contain the data. Screens are not completely populated with data, just titles.

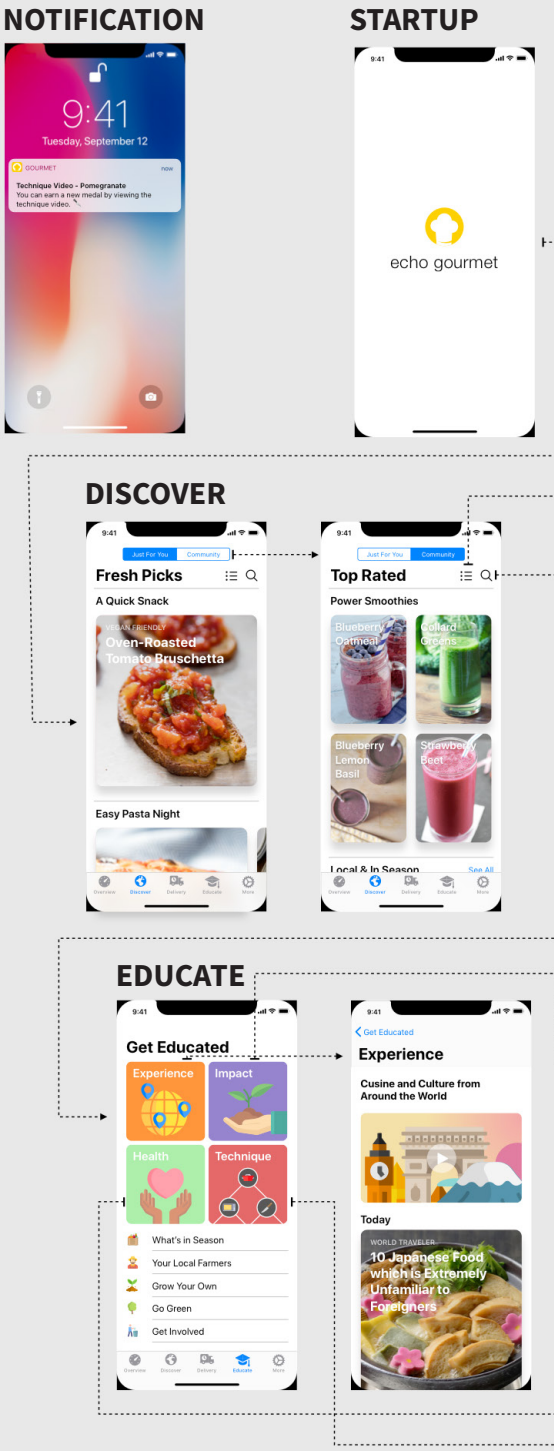
1. Find where your current delivery information is and track the package
2. Find health data related to the food that you have cooked
3. Find the privacy settings page
4. Discover a recipe and add it to your list
5. Find the button to unpair your device

Thank you for your participation in this testing!
You're 🔥🔥🔥

INFORMATION ARCHITECTURE.

This document goes over over final wireframe and how it connects all of the parts of the app together. This is the final logical step that we can use as a map to create a working prototype. It makes sure that we don't have any dead ends and that users can easily navigate from one section of the app to the others.

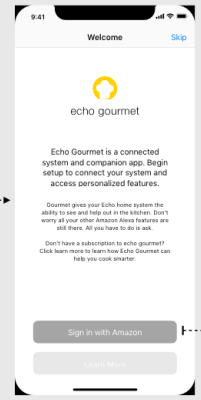
The final app is split into 8 sections. Section 1 is the startup and checks if the user has a subscription. Section 2 is the setup and how a user first enters preferences. Section 3 is the first tab, Weekly Overview. Section 4 is the second tab, Discover. Section 5 is the third tab, Delivery. Section 6 is the fourth tab, Educate. Section 7 is the fifth tab, More. Finally, Section 8 is how the video technique notifications appear on a users phone.

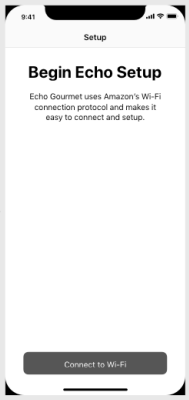


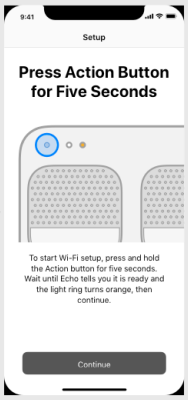
INFORMATION ARCHITECTURE | 03.28.18

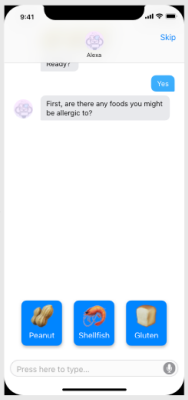
SETUP

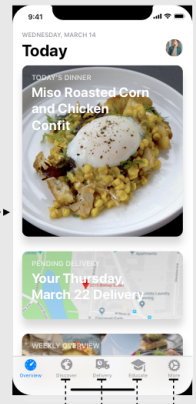
HOME / OVERVIEW

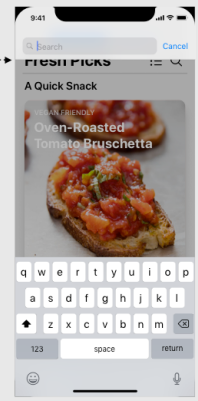


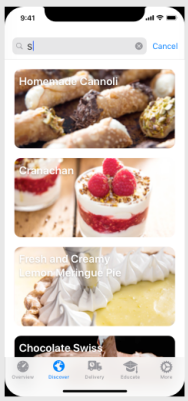


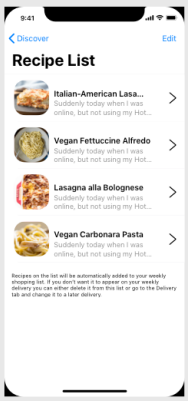


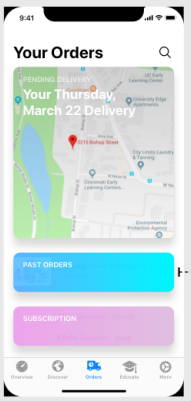


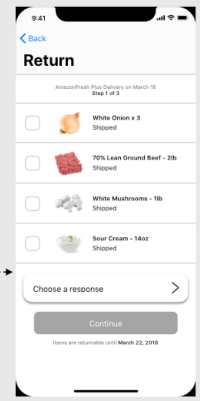




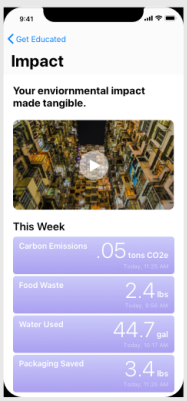


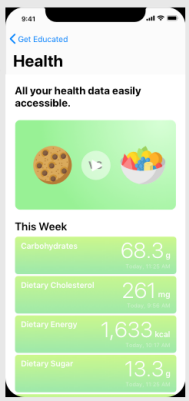


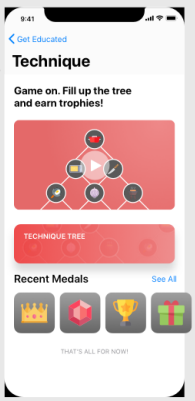


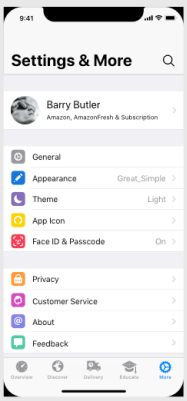


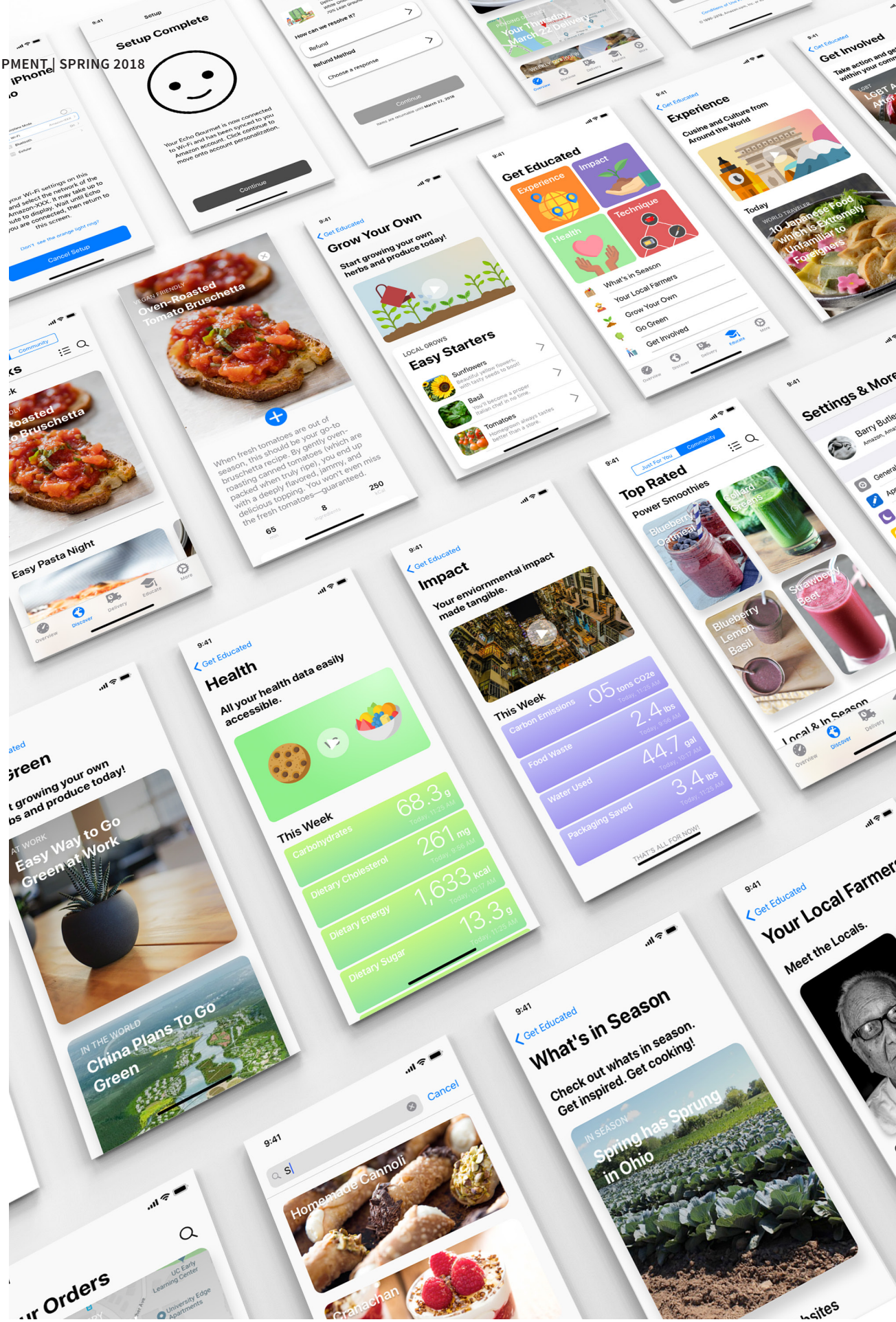
MORE





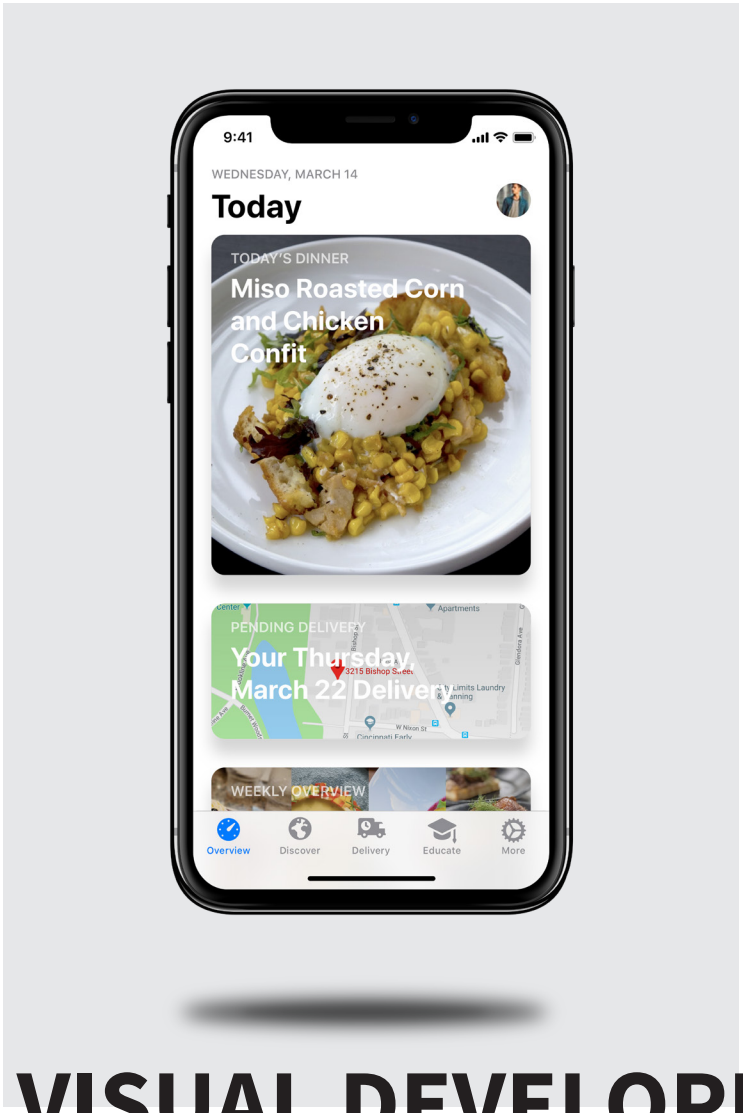






A SELECTION OF SCREENS | 03.31.18

HOMESCREEN | 04.03.18

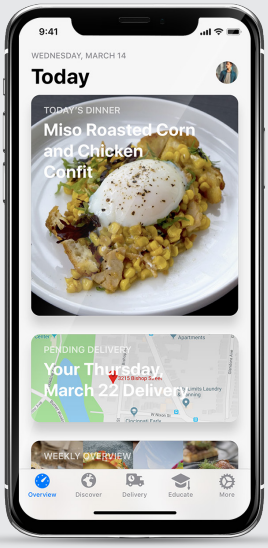


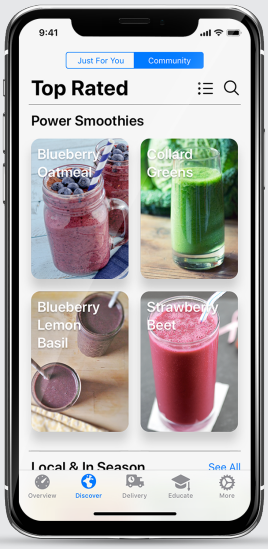
VISUAL DEVELOPMENT

When designing our app we wanted to follow Apple's design guidelines to a tee. We created all flows to feel like a native Apple app. This allowed us to add features and navigation techniques that any iPhone user would be comfortable with. It also made it easy to handle hierarchy and layout as Apple has automatic sizes and spacing for everything already set.

5-TAB NAVIGATION

Our app was designed with a 5-tab interface. Each tab includes an icon that makes it easy to memorize and associate what each section contains. The app always starts on the homescreen which is set to the weekly overview. This allows users to load up the app and quickly see what they are eating that day and when their next delivery is scheduled for.



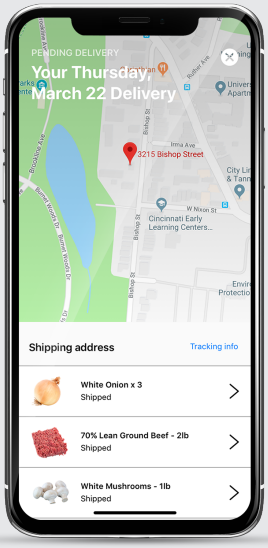


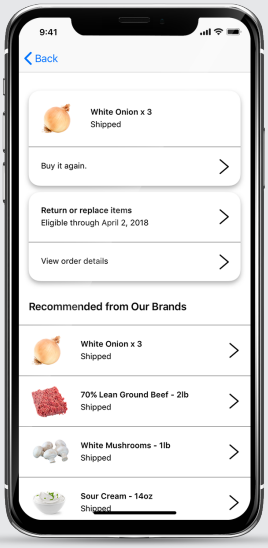
CARD BASED INTERFACE

The interface that we created uses cards to allow for pictures of food and drinks to act as buttons. Cards act as a metaphor for a portal to more information.

MULTI-LEVEL NAVIGATION

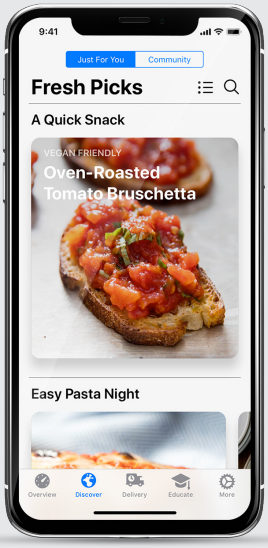
The app uses a couple levels of navigation that stays consistent throughout. At the top level a user can change between the 5-tabs as well as any subsections within them. When clicking on a card a user is shown an expanded card that fills the screen and can be closed with an “x”. Finally when a user selects a preference or a line item with an arrow a user is given a back button to return to the previous screen.

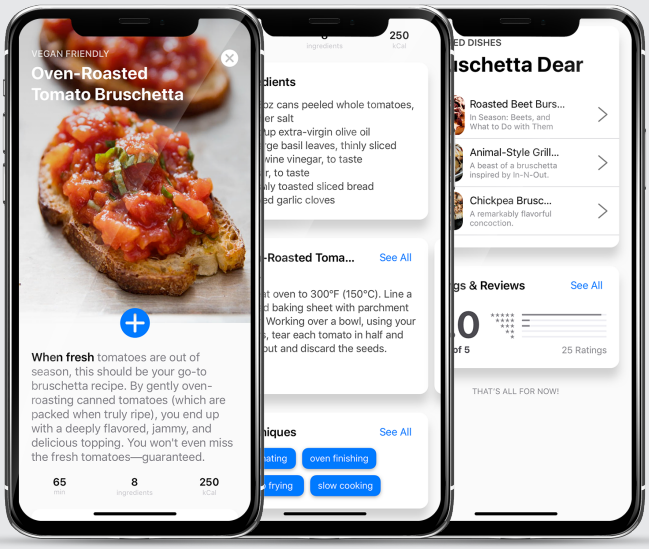




DISCOVER NEW RECIPES

Discovering new recipes is super easy. Each person has a set of recipes that matches their dietary preferences and past cooking sessions. A user can access community voted recipes. If none of the recommendations are satisfactory then a user can search for specific recipes to make.



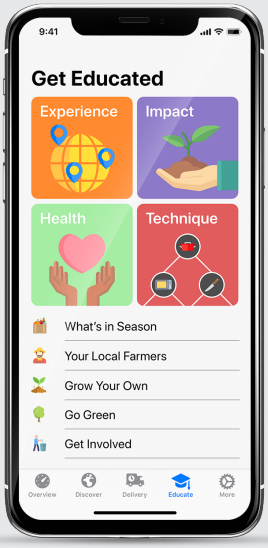


RICH RECIPE CARDS

Recipe cards contain lot of data including a description, ingredients, average cook times, techniques, and reviews.

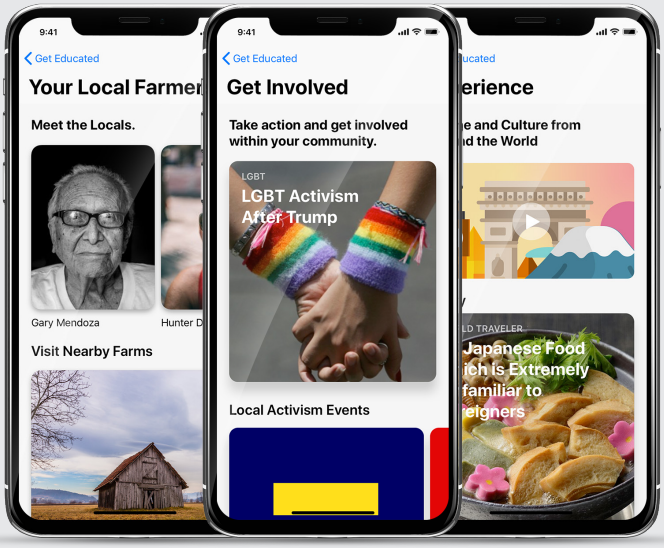
GET EDUCATED

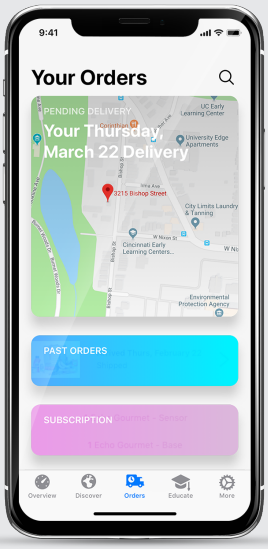
The education tab was created to teach users about culture, enviornmental impact, and other topics that realate to a more empathetic and connected world.

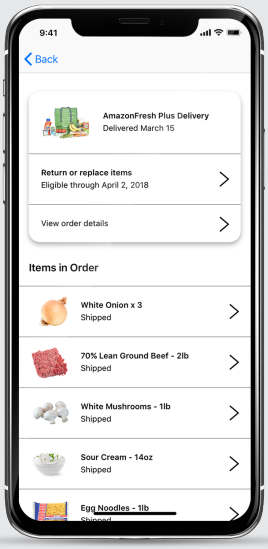


GET CONNECTED

Within the Educate tab there are sections that connect uses with local farms, different cultural experiences, and activism and outreach oppourtunities.







EASILY MANAGE ORDERS

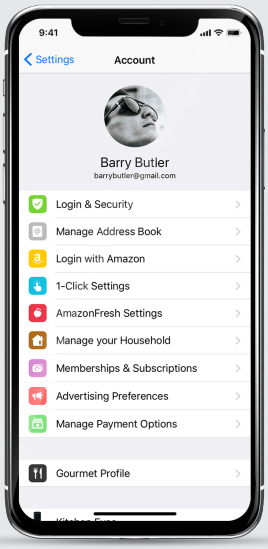
Users can easily manage their orders. They can see when the next delivery is coming as well as set how often deliveries would be made. This tab also gives users the ability to change their subscription level at any time.

EASY RETURNS

To make sure users have acess to easy returns we updated Amazon's return flow.

CONVERSATIONAL PREFERNCES

Our start-up preferences were created to introduce the user to the more conversational nature of our AI system.

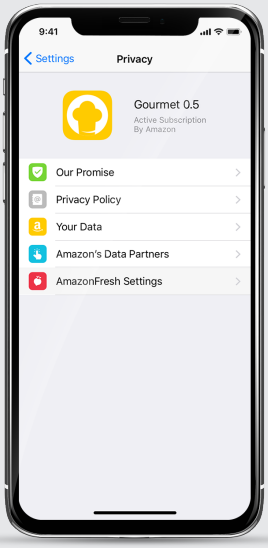


ACESSIBLE SETTINGS

Settings are their own tab and easily accessible from any top-level part of the app.

SERIOUSLY PRIVATE

Privacy gets its own tab. It includes a statement from Amazon on their commitment to privacy, a privacy policy, access to download and deletion of a users data, and more.



We knew that including branding would lead to make a more believable product concept. To that end, we decided to extend Amazon's current Echo and Alexa branding.

We started with Amazon's basic Helvetica Neue to create the wordmark. We then took Amazon's color palettes and current iconography to create a logo that slots right into their current lineup. The chef hat and name, "Gourmet" were selected for mod and bespoke connotations.

The color is a variant of Amazon's pure colors they chose for their brand. Each brand color contains a full 255 and 0 RGB color value. These create a series of bright colors that are all distinct in how they feel.

The logo was a good exercise as it allowed for us to introduce our topic and project in a more grounded manner.

LOGO AND WORDMARK | 03.20.18

GOURMET LOGO.

LOGO + MARK

BRAND COLORS

alexa blue
R: 0 G: 203 B: 255

bright green
R: 203 G: 255 B: 0

bright pink
R: 255 G: 0 B: 203

gourmet gold
R: 255 G: 203 B: 0

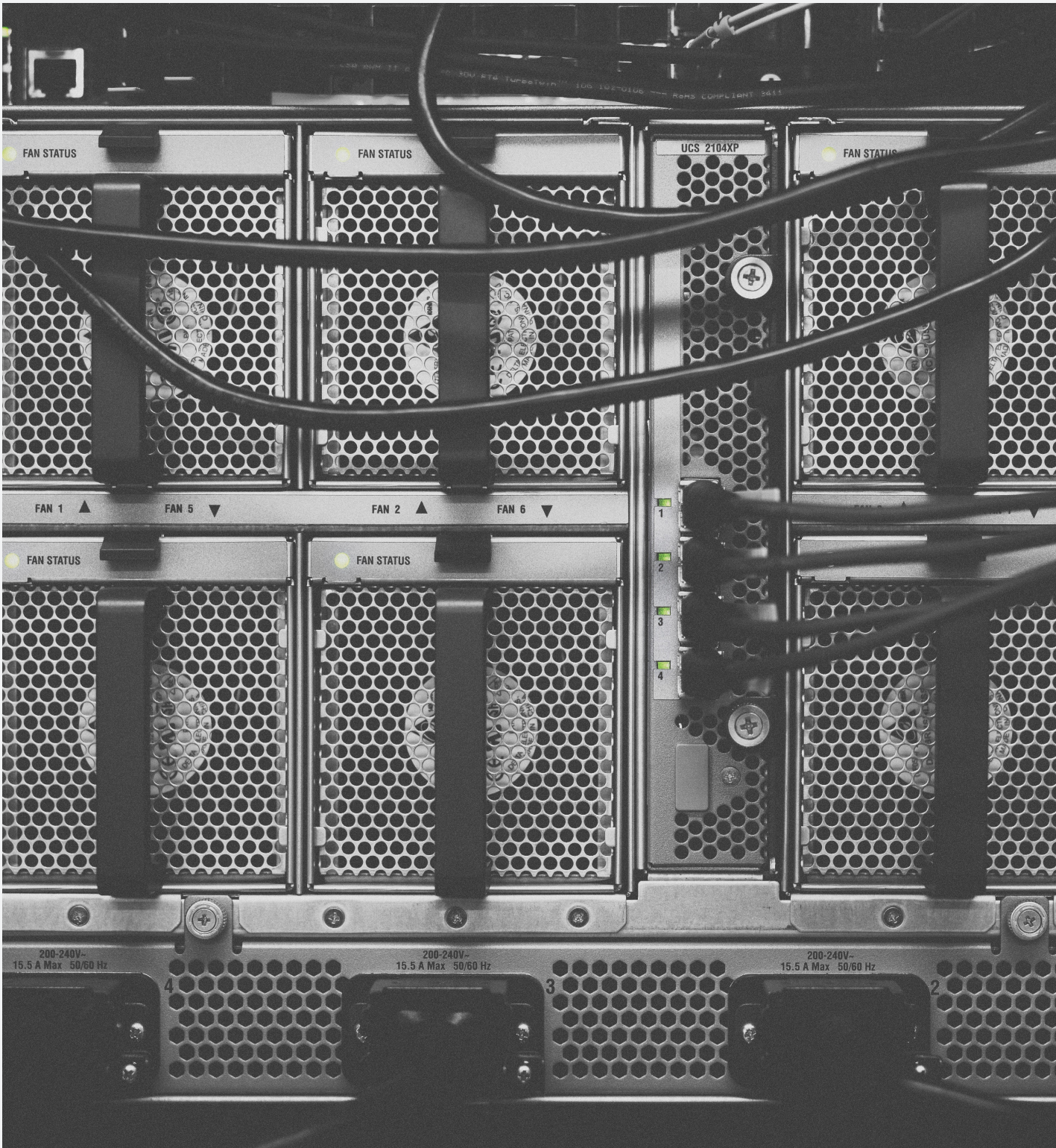
black
R: 0 G: 0 B: 0

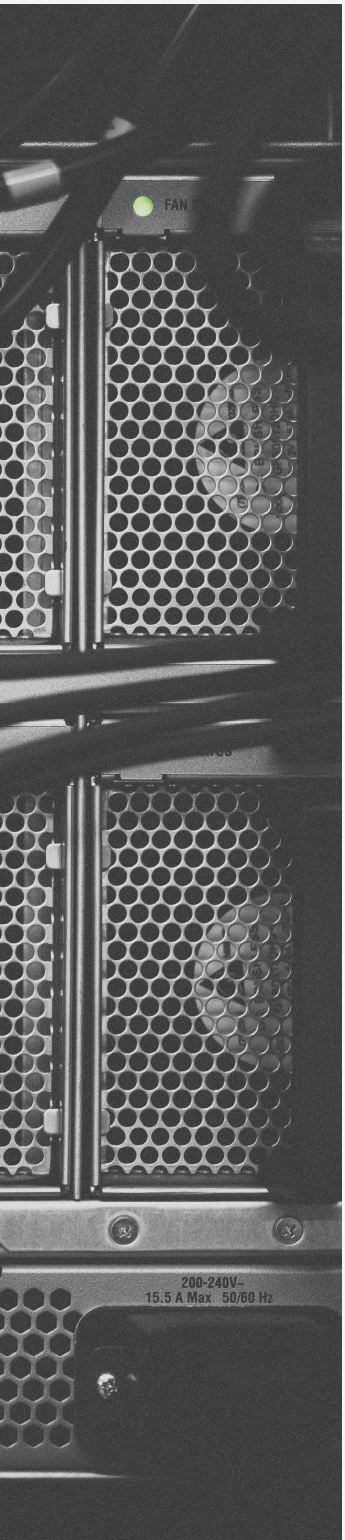
white
R: 255 G: 255 B:255

ALTERNATIVE MARKS

black variant

small variant


FAN STATUS
FAN STATUS
UCS 2104XP
FAN STATUS
FAN 1
FAN 5
FAN 2
FAN 6
FAN STATUS
FAN STATUS
1
2
3
4
200-240V~
15.5 A Max 50/60 Hz
200-240V~
15.5 A Max 50/60 Hz
200-240V~
15.5 A Max 50/60 Hz
4
3
2



HARDWARE DEVELOPMENT.

02.

MARKET OFFERINGS

TO BENCHMARK OUR DESIGN CONCEPTS WE HEAVILY RESEARCHED THE MARKET AND ITS INTERSECTIONALITIES. WE THEN CREATED A PLACE FOR OUR PRODUCT AND CRAFTED A UNIQUE VALUE PROPOSITION.

CONCEPTS ILLUSTRATED

WE STARTED WITH A SERIES OF EXERCISES AND THEN MOVED TO DRAWING AND 3D MODELING OUR CONCEPTS. THIS SECTION INCLUDES SMALL STORYBOARDS OF HOW WE IMAGINE THE CONCEPTS WORKING.

GETTING PHYSICAL

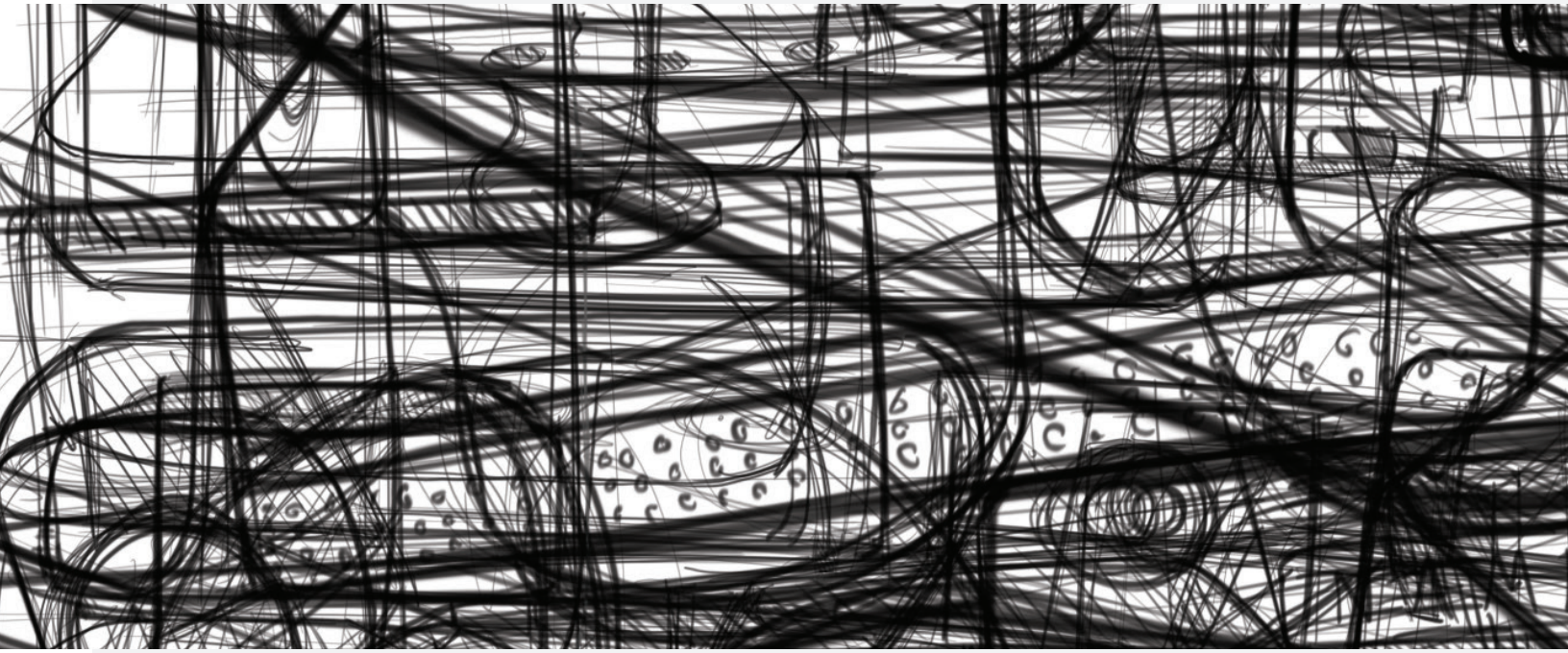
A SECTION ON HOW WE PROTOTYPED OUR CONCEPTS AND WHAT WE LEARNED.

VALIDATION

THIS SECTION GOES OVER THE VALIDATION PROCESS AND HOW WE TESTED CONCEPTS AND SCENARIOS WITH POTENTIAL USERS.

FINAL CONCEPTS

A SECTION DETAILING FEATURES OF OUR FINAL PHYSICAL PRODUCTS.



SKETCHES OVERLAID | 02.19.18

BRAINSTORM / EXPLORATION

As a team we prefer to get physical with our design exploration. Instead of rounds and rounds of concept drawings we enjoy doing small rounds of thumbnail sketch dumps and feature exploration. From here, the first stage starts. We pick out ideas that we like and start prototyping interactions and forms using random pieces of bottles, string, etc. We are trying to understand a 3d form and create things that live in a 3d world, so we like to make sure it feels good in our hands. Next we distill those low-fi prototypes into concepts by sketching ideas while simultaneously create basic 3d models.

The second stage begins when we then print 3d models of our concepts and start to playtest interactions. At this stage we want to get them in as many peoples hands as possible. This allows us to have conversations and create designs that are truly centered around humans. We evaluate feedback from our conversations, our inner-group arguments, and combine that with our taste to create a direction that we are happy with. This direction is treated as a sort of form hypothesis that we can riff off of to iterate our way to a final form.

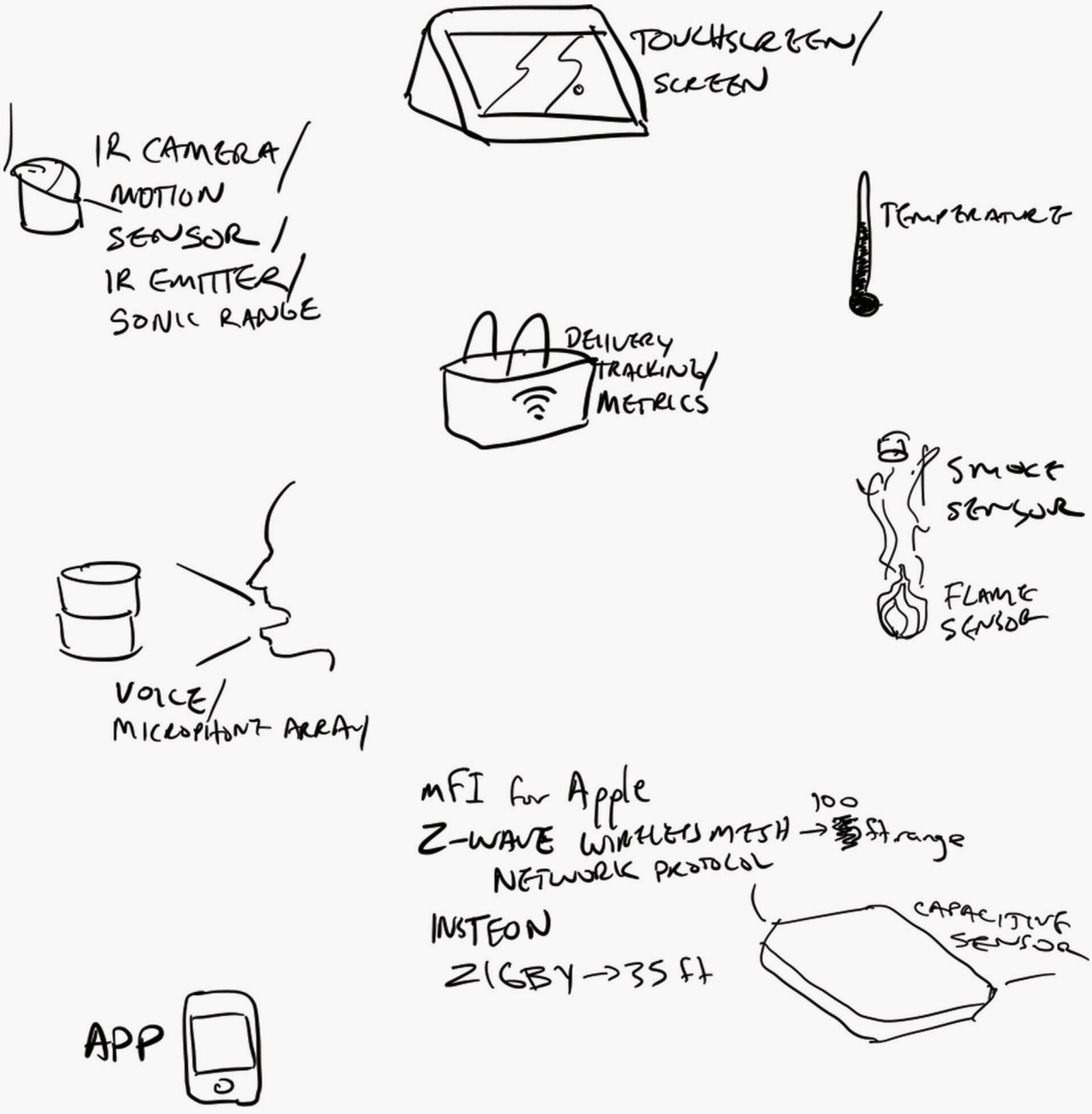
The third stage of our development includes idea validation. We choose materials, create visuilizations, as well as test our concepts in real-world scenarios. This allows us to get one more round of feedback from potential users before we lock in a direction.

The fourth and final stage involves a heavy amount of reflection on what we like, how our design fits our goals, and whether we think we covered everything we hoped to. In this stage we also hope to realize what could be better or what needs to change for a better V2.

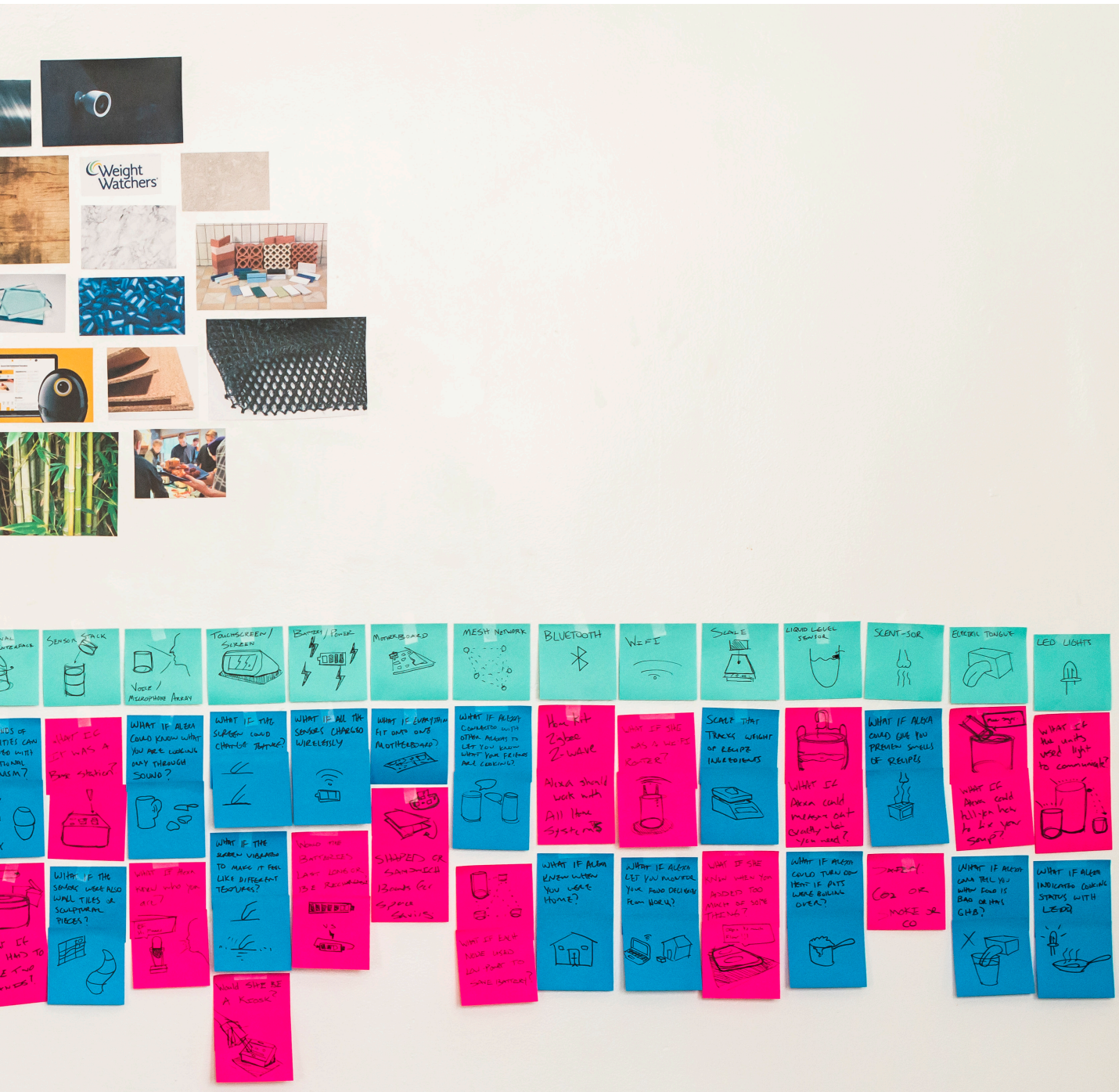
“THE BEST IDEAS START AS CONVERSATIONS.”

-JONATHAN IVE

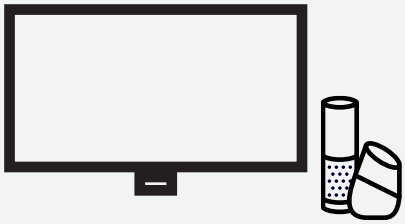
INITIAL FEATURE IDEATION


TOUCHSCREEN/
SCREEN
IR CAMERA/
MOTION
SENSOR/
IR EMITTER/
SONIC RANGE
TEMPERATURE
DELIVERY
TRACKING/
METRICS
SMOKE
SENSOR
FLAME
SENSOR
VOICE/
MICROPHONE ARRAY
mFI for Apple
Z-WAVE WIRELESS MESH → 100 ft range
NETWORK PROTOCOL
INSTEON
ZIGBY → 35 ft
CAPACITIVE
SENSOR
APP
BATTERY/POWER SOCKET/
WIRELESS
CHARGING
MOTHERBOARD

POST-IT CONCEPT CREATION

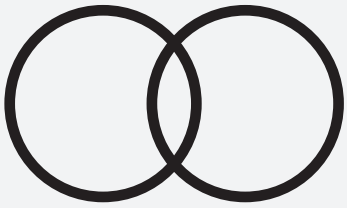

Weight Watchers
SENSOR STACK
VOICE / MICROPHONE ARRAY
TOUCHSCREEN / SCREEN
BATTERY / POWER
MOTHERBOARD
MESH NETWORK
BLUETOOTH
WIFI
SCALE
LIQUID LEVEL SENSOR
SCENT-SOR
ELECTRIC TONGUE
LED LIGHTS
WHAT IF ALEXA COULD KNOW WHAT YOU ARE LOOKING AT ONLY THROUGH SOUND?
WHAT IF THE SCREEN COULD CHANGE TEXTURE?
WHAT IF ALL THE SENSORS CHARGED WIRELESSLY
WHAT IF EVERYTHING FIT ONTO ONE MOTHERBOARD?
WHAT IF ALEXA'S CONNECTED WITH OTHER ALEXAS TO LET YOU KNOW WHAT YOUR FRIENDS ARE COOKING?
How kit Zigbee Z-Wave
Alexa should work with All Home Systems
SCALE THAT TRACKS WEIGHT OF RECIPE INGREDIENTS
WHAT IF Alexa could measure out exactly what you need?
WHAT IF ALEXA COULD GIVE YOU PREMEN SMELLS OF RECIPES
WHAT IF the crafts used light to communicate?
WHAT IF THE SENSORS WERE ALSO WALL TILES OR SCULPTURAL PIECES?
WHAT IF ALEXA KNEW WHEN YOU WERE HOME?
WHAT IF ALEXA LET YOU MONITOR YOUR FOOD DELIVERY FROM WORK?
WHAT IF ALEXA COULD TURN ON HEAT IF PETS WERE BEHIND OVER?
WHAT IF ALEXA COULD TELL YOU WHAT FOOD IS BAD OR HAS GHB?
WHAT IF ALEXA INDICATED COOKING STATUS WITH LEDS
SHAPED OR SANDWICH
WOULD SHE BE A KIOSK?

TAKEAWAYS



NOT TOO MUCH

WHILE A DEVICE COULD CONTAIN A HUGE NUMBER OF SENSORS IT REALLY ONLY NEEDS TO EXPAND HOW WE CURRENTLY INTERACT. WE BELIEVE THAT GIVING ALEXA VISION CAN DO THAT.

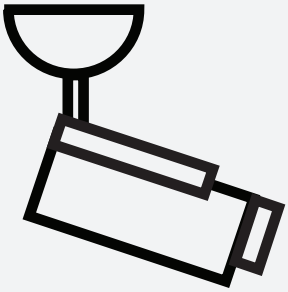


COMPLIMENT DON’T COMPETE

THE DEVICE SHOULD BE MORE OF AN ENCYCLOPEDIA THAT MAKES YOU FEEL LIKE THE STAR CHEF INSTEAD OF AN OVERBEARING TASKMASTER.

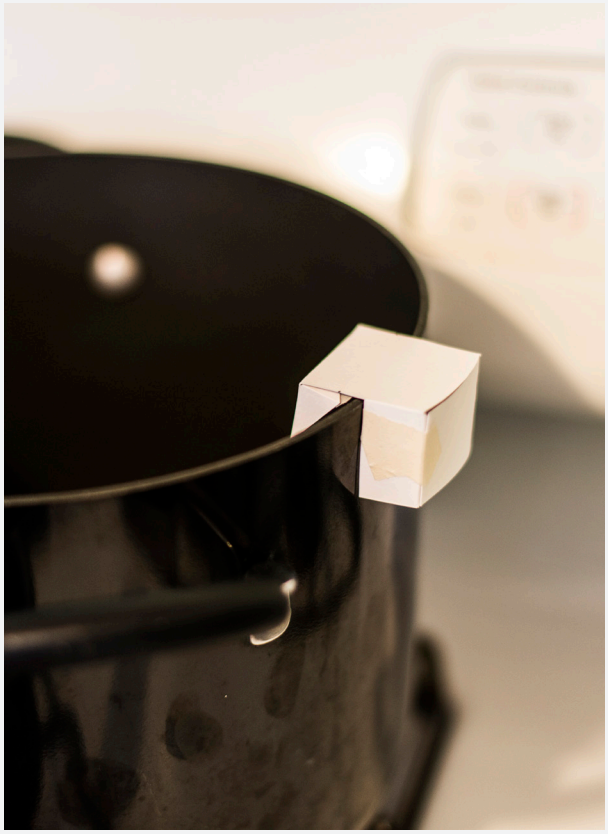
MATERIALS TO MATCH

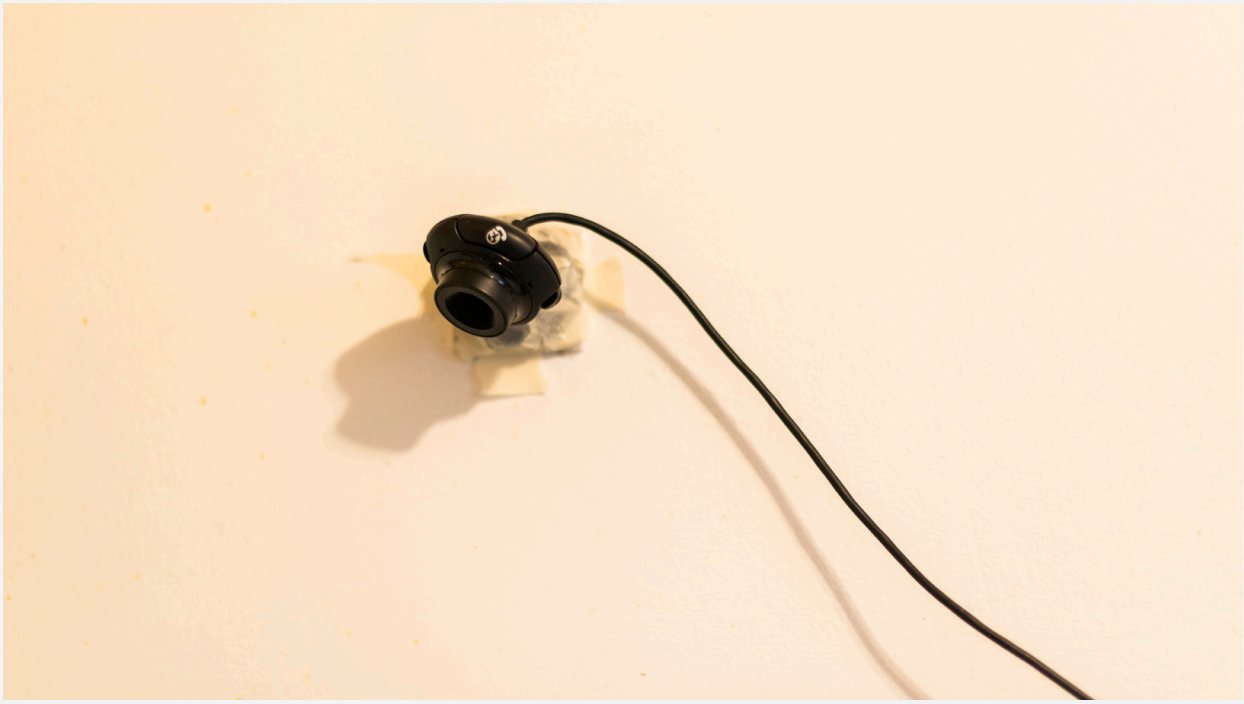
PEOPLE EXPECT DEVICES IN THEIR KITCHEN TO BE EASY TO CLEAN SO WE THOUGHT THAT HAVE A UNIT MOSTLY BE METAL AND GLASS WOULD ALLOW IT TO BE CLEANED WITH NORMAL APPLIANCE CLEANERS.



NOT TOO CREEPY

IT SHOULDN'T LOOK LIKE A TRADITIONAL HOME SECURITY SYSTEM CAUSE THAT FEELS CREEPY. A SIMPLIFIED FORM THAT HIDES THE CAMERA ELEMENTS IS ESSENTIAL.





LO-FI PROTOTYPES.

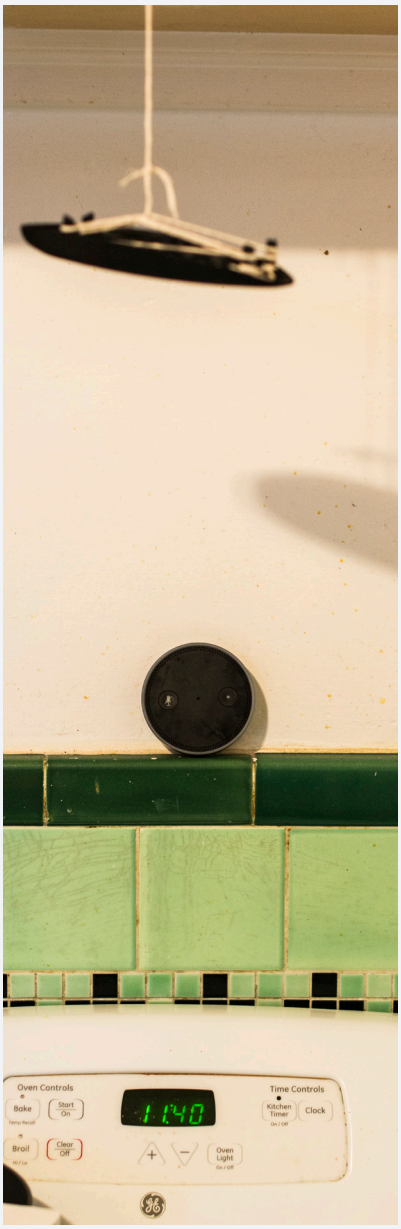
Making things with your hands with paper and random things is a great way to think of ideas that you would have never been able to draw.

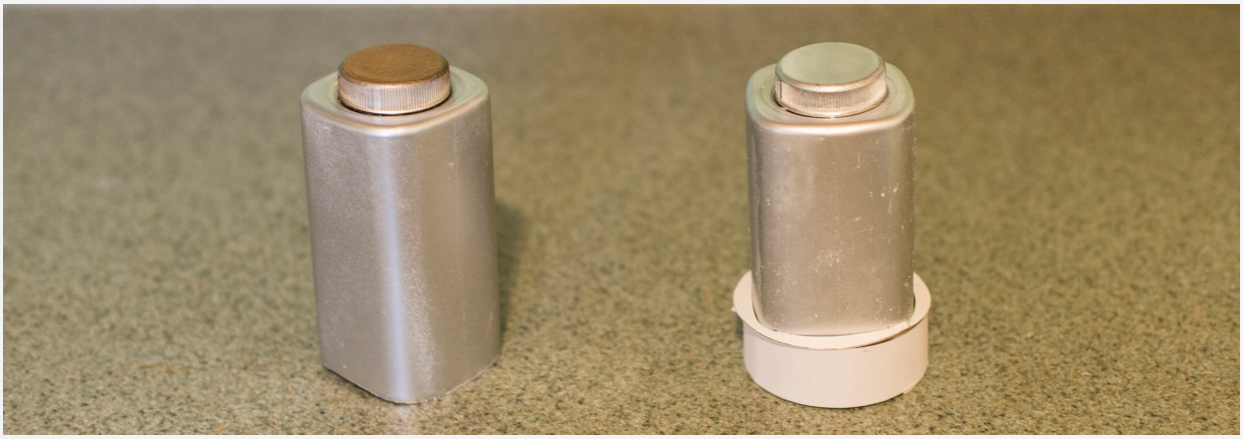
We started our process by taking a trip to a few local thrift shops. Anything that could be used to mockup a weird interaction that was under $5 was fair game. We came away with some speakers, a webcam, and one of those weird things with all the little plastic tubes that you can press up. On our way inside the house, we dug into our recycling bin and picked up some drink bottles. With the addition of some bristol, tape, string, and an Echo shell we got to work.

Our hope was to test how sensors could be placed different places around your kitchen. We knew that they had to be low profile and out of the way, but we also were trying to figure out how they might give a user feedback.

Our concepts started with small devices that go on your cookware and evolved to placing semi-permanent objects around the kitchen to see how obtrusive they were. To fully test a camera we stuck the the webcam where it could view someone cooking. It felt a little creepy. Ultimately this helped inform our decision to cut the cord as well as create a form for our sensors that doesn't scream security camera.


BREAD
BACON
BEEF


Oven Controls
Bake
Start
On
Broil
Clear
Off
11:40
Time Controls
Kitchen
Timer
Clock
Oven
Light

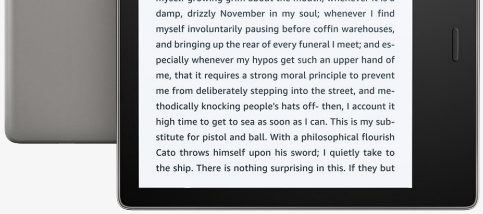


AMAZON WHITEBREAD.

While some people may call Amazon's design language dull we would call it calculated. Amazon is in the business of selling things; a lot of things. This means that to market the products it sells they must appeal to the widest audience possible. In this instance that user is middle-class America.

Every single decision Amazon makes with their products comes down to their users. Most of their products are adorned in various styles of black plastic. This black plastic is iconic in a weird sort of way. It tries to be an identifieable brand piece, but ends up looking great in the online renders and falling flat in real life. Most of Amazon's products look cheap when you see them in person. To be fair, Amazon is normally creating and selling these products as cheaply as possible to get them into as many homes as they can.

We wish Amazon would branch out into a different material or design language as their products don't seem to have any sort of cohesive form languge besides black. We like their Dash Wand and home camera system because they move outside of the norm. The biggest shame is that the form and deisgn language doesn't celebrate the care that goes into engineering how these products actually work.

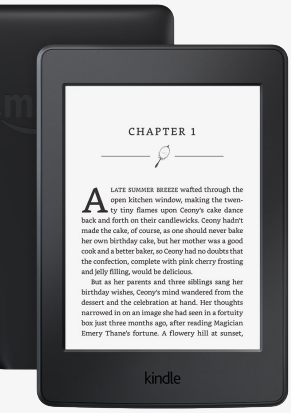


AMAZON'S PRODUCTS | 02.10.18


amazon


amazon


amazon


CHAPTER 1
A late summer breeze wafted through the open kitchen window, making the twenty tiny flames upon Ceony's cake dance back and forth on their candlewicks. Ceony hadn't made the cake, of course, as one should never bake her own birthday cake, but her mother was a good cook and a better baker, so Ceony had no doubts that the confection, complete with pink cherry frosting and jelly filling, would be delicious.
But as her parents and three siblings sang her birthday wishes, Ceony's mind wandered from the dessert and the celebration at hand. Her thoughts narrowed in on an image she had seen in a fortuity box just three months ago, after reading Magician Emery Thane's fortune. A flowery hill at sunset,
kindle


HOME BOOKS VIDEOS GAMES APPS MUSIC


amazon


amazon
amazon


amazon

EVOLVING THE LANGUAGE.

Amazon sells each and every one of the products to the right on its website. They are all a smart product in some way or another. While they are still using basic shapes and standard tech materials they all have the ability to stand out and live as their own product.

The forms of the products also are a step ahead of Amazon. Amazon uses cylinders and rounder corners whereas most tech products have evolved to become more shapely. Products can keep their forms simplistic, but still evolve beyond basic shapes. Even the August locks which are very simple extruded shapes feature texture and a large brand-building chamfer to set them apart from being simple extrusions.

As far as materials go we are completely over the black plastic and use of plastic as a screen material. We think that moving foward Amazon should use more natural materials like metal and fabric as well as glass to create a more premium feel for their products. These materials also make it much easier to imagine the product living inside your home as they can be finished in a multitude of ways without feeling sterile and imposing like Amazon's current choices do.

SMART HOME PRODUCTS | 02.18.18


nest
74°
MONDAY 12:36
72°
24%


ring


arlo


72
ecobee


SHARPER IMAGE

SYSTEM BENCHMARKS

Many of the current offerings for technology and kitchen systems are skewed towards benefit for the corporation. Often times this skew manifests itself in competitive cognitive models. Complementary cognitive models often are less directly beneficial for businesses and therefore less desirable for businesses to pursue.

Looking at the product and system landscape, we decided to position our system in the near future and design it as a blueprint for the design of ethical technology in the future.

CURRENT AI SYSTEMS

Current AI technology is not powerful enough to provide users with a significantly beneficial complementary cognitive model, only to replace basic mental calculations. Maps, for example, are complementary, but GPS is completitive. With further AI development a complementary system could be devised that could teach people how to navigate better rather than do the navigation for them.

KITCHEN SERVICES AND TECH

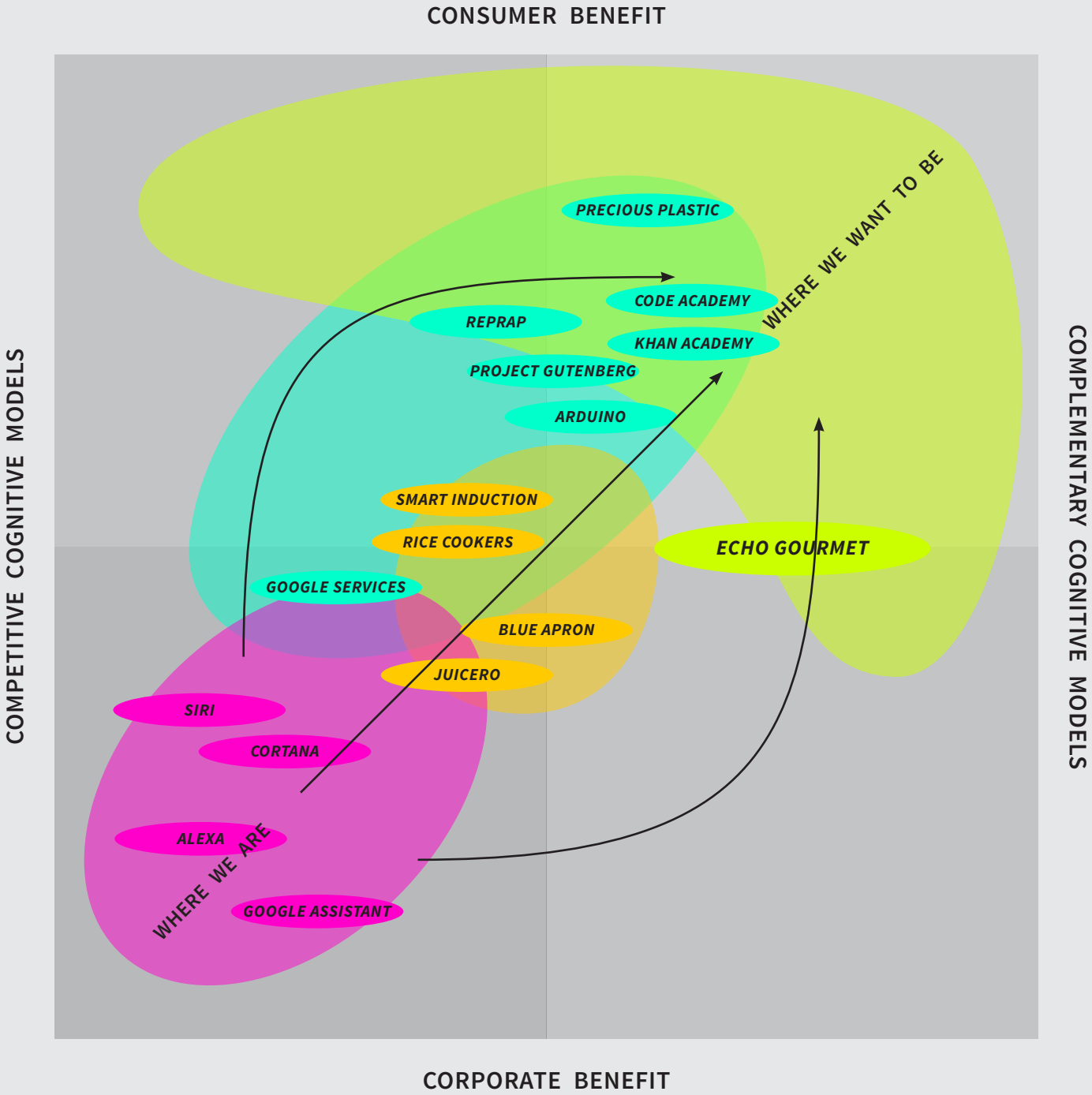
Many of the recent food business trends like meal delivery services and smart kitchen technology sit in the realm of competitive complementary models. By focusing on creating an educational system using the infrastructure of an AI assistant it's possible to create a complementary and user-beneficial technological system.

OPEN SOURCE PROJECTS

Open source initiatives are great examples of how beneficial certain initiatives can be to society. Part of the reason for this is the focus on education that is exemplified by organizations like Khan Academy, Code Academy and Precious Plastic. Unfortunately, the major players in the AI market do not open source their AI development.

IDEAL ETHICAL TECHNOLOGY LANDSCAPE

Our envisioned ideal ethical product and service landscape would push society forward by using technology and AI to make people better people through the use of cognitive models. Companies would create value by being as beneficial of a service to its users as possible, with AI ethics being at the core of their values in place of profit.


CONSUMER BENEFIT
COMPETITIVE COGNITIVE MODELS
COMPLEMENTARY COGNITIVE MODELS
CORPORATE BENEFIT
WHERE WE WANT TO BE
WHERE WE ARE
PRECIOUS PLASTIC
CODE ACADEMY
REPRAP
KHAN ACADEMY
PROJECT GUTENBERG
ARDUINO
SMART INDUCTION
RICE COOKERS
ECHO GOURMET
GOOGLE SERVICES
BLUE APRON
JUICERO
SIRI
CORTANA
ALEXA
GOOGLE ASSISTANT

DESIGN EXTERNALITIES.

The design of the echo gourmet exists at the intersection of current tech ethics and an ideal ethical technology landscape. It is a stepping stone to be used by the current industry to move in a better direction, one that focuses on long-term benefit to humanity, society, and mother nature. Humanity is hurling itself towards a technological crisis and the design of technology now will affect the outcome of the crisis. If we as a society choose to design better technology now and our societal ethics evolve in tandem with our technology then we can achieve the impossible. If our technology continues to go in the direction it is currently headed then the ethics that are imbued in the systems we use will control us and destroy us.

THIS IS WHY THE ECHO GOURMET MATTERS.

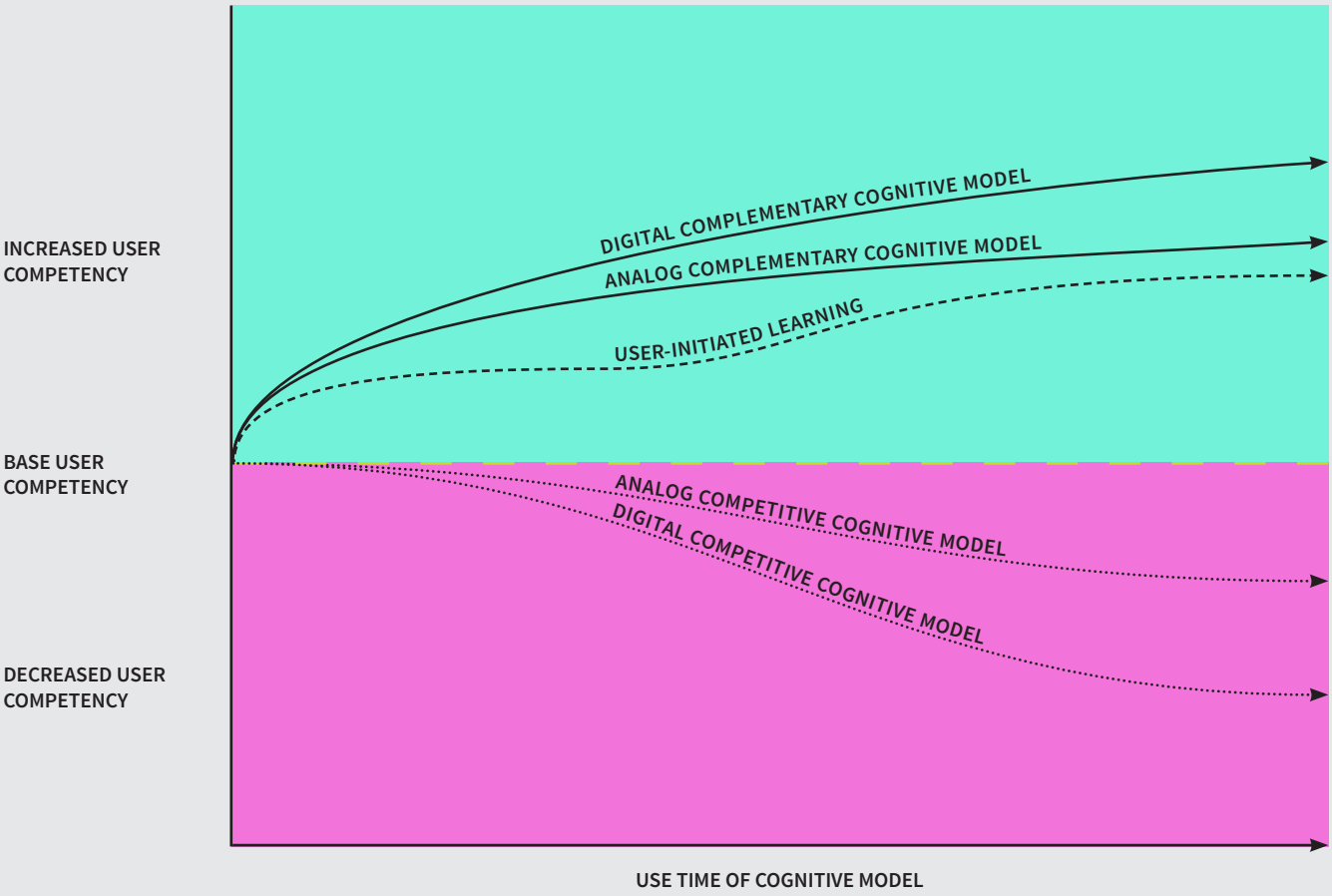
Echo Gourmet is not primarily a food delivery service, or an AI assistant, or a technology product system. Echo Gourmet is about redirecting the course of humanity by changing the ethical framework within which technology is designed.

The system leverages intensive research on the most efficient educational models and combines it with the distributional and organizational genius of amazon to make the leap from competitive to complementary cognitive technology models.

Echo Gourmet does this by envisioning a world where technology teaches people how to do things better rather than doing things for them. Gourmet does this specifically through the case study of food preparation in the kitchen and a deep dive into amazon.

Since Echo Gourmet is intended to be an incremental step towards something better, there were many ethical concessions that were made. Technology would not have advanced far enough

COGNITIVE MODEL COMPARISON.



COMPETITIVE COGNITIVE MODEL

Competitive cognitive models contribute negatively to the user's base ability over time. Something like a GPS is competitive because it provides the user with basic instructions without augmenting the user's ability to find a place on their own. Often times competitive cognitive models have benefits and take the place of unwanted human effort which is why they are used. Digital models work better which means they simultaneously do their task better and make humans even worse than analog competitive cognitive models.

USER-INITIATED LEARNING

User-initiated learning doesn't have the input of cognitive models to benefit from. The user cycles through periods of skill progression and plateau as their interest and drive fluctuate, eventually reaching an ultimate plateau where the user feels their skill no longer needs to progress further.

COMPLEMENTARY COGNITIVE MODEL

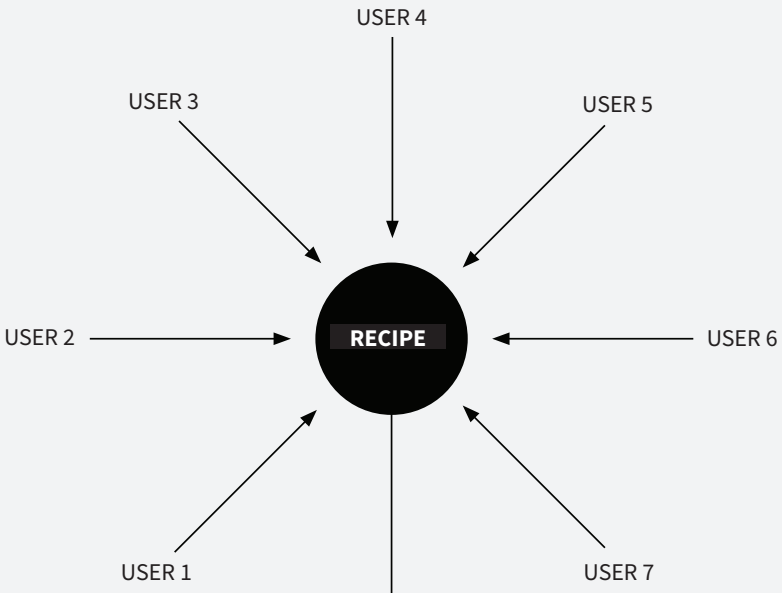
Complementary cognitive models are things like analog maps and abaci. They make the user better at understanding something, be it an environment from a map or doing mental math calculations with an abacus. It's very rare to find a digital complementary cognitive model because for the most part technology isn't at the point to be able to make them. Prezi is one of the few examples of complementary cognitive models in a digital environment.

Current AI systems are all competitive. Echo Gourmet envisions a necessary future transition into a world of complementary AI that augments human abilities.

THE AMAZON EFFECT.

Amazon's current systems work in a way that pushes people towards a common choice, like buying the most popular salt grinder or the cheapest cutting board on prime. Alexa works in a similar way by being so constrained in the operations you can perform and the commands you can speak. Much of the reason for this is because the technology isn't there yet and Amazon is more interested in a cheap product that will enter people's homes than making the best artificially intelligent system. And when it comes down to it, Amazon is a company dedicated to the pursuit of profit which often times comes at the expense of ethics.

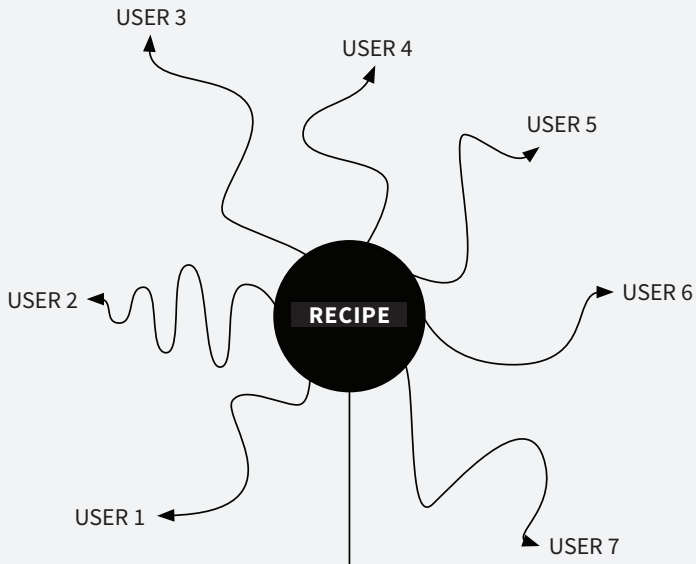
Echo Gourmet is intended to show how Amazon can incorporate an AI system into their profit-driven model that provides ethical benefits to users without compromising revenue flow.



SPECULATIVE FUTURE.

Amazon could be a more ethical company by focusing on providing services that improve peoples lives and also increase revenue. Echo Gourmet is a subscription-based services that connects to Amazon's other offerings in the food sector so it has high potential for revenue generation. It also is a service that teaches the user a skill and makes them better at something vital for life while doing it in a way that accents the user's individuality instead of mediating it.

We hope the Echo Gourmet will push Amazon towards ethical conduct and a system of values that holds user benefit in high regard, and not just because it makes money.



We knew that to make a successful product we had to test it as much as possible. We designed a scenario as a sort of exercise to test how an AI could be used to teach cooking.

This test first involved collecting a few data points from a group of individuals. Through a survey, we collected participants likes and dislikes and their percieved level of cooking ability. From there we created a series of three recipes. All of the recipes were based around one-pot Italian dishes and focused on different cooking techniques. These recipes were matched to five participants and used as a baseline. The recipes themselves were able to be tweaked slightly on the fly based on users super specific taste preferences.

The actual runthrough was conducted using a protocol that had one of us acting as the Alexa unit that was able to look up information and answer questions about the recipe that the user was cooking. Users were encouraged by "Alexa" to taste the food more often and ask more questions. An iPad was used to show users videos of techniques that were hard to explain aurally.

In general users liked the conversationality that "Alexa" brought to the table. None of the users had any trouble making the dishes and everyone enjoyed the food that they made. After the session we discussed what could be changed. We believe that we needed to tone back the conversationality as it was not realistic as well as create a more solid intro to the cooking mode. This lead us to look into designing basic light and sound interactions for our interface.

KYLE | THIRD VALIDATION TEST | 02.20.18

SESSION 1 : 2.20.18.

SUSAN | SECOND VALIDATION TEST | 02.20.18

About a month after our first session we were ready for another. This session was to help validate the interactions that we designed as well as hone a much more simple recipe to demo for our capstone presentation.

We used the same set of five participants as the last sessions which allowed us to already zero in on each participants likes and dislikes. We were looking to test a more technique driven learning model using explanations of proper preparation and more reliance on video tutorials. We also included an intro to each recipe that provided a participant with a list of ingredients and an overview of the steps required to reach the end product.

This test's results were a huge win for us. We found that participants were more comfortable with recipes compared to our last session. One participant was given the monumentous task of poaching an egg without any prior experience. A curated video of the technique and encouraging the participant to more carefully watch it cook, resulted in a perfect poached egg on the first try.

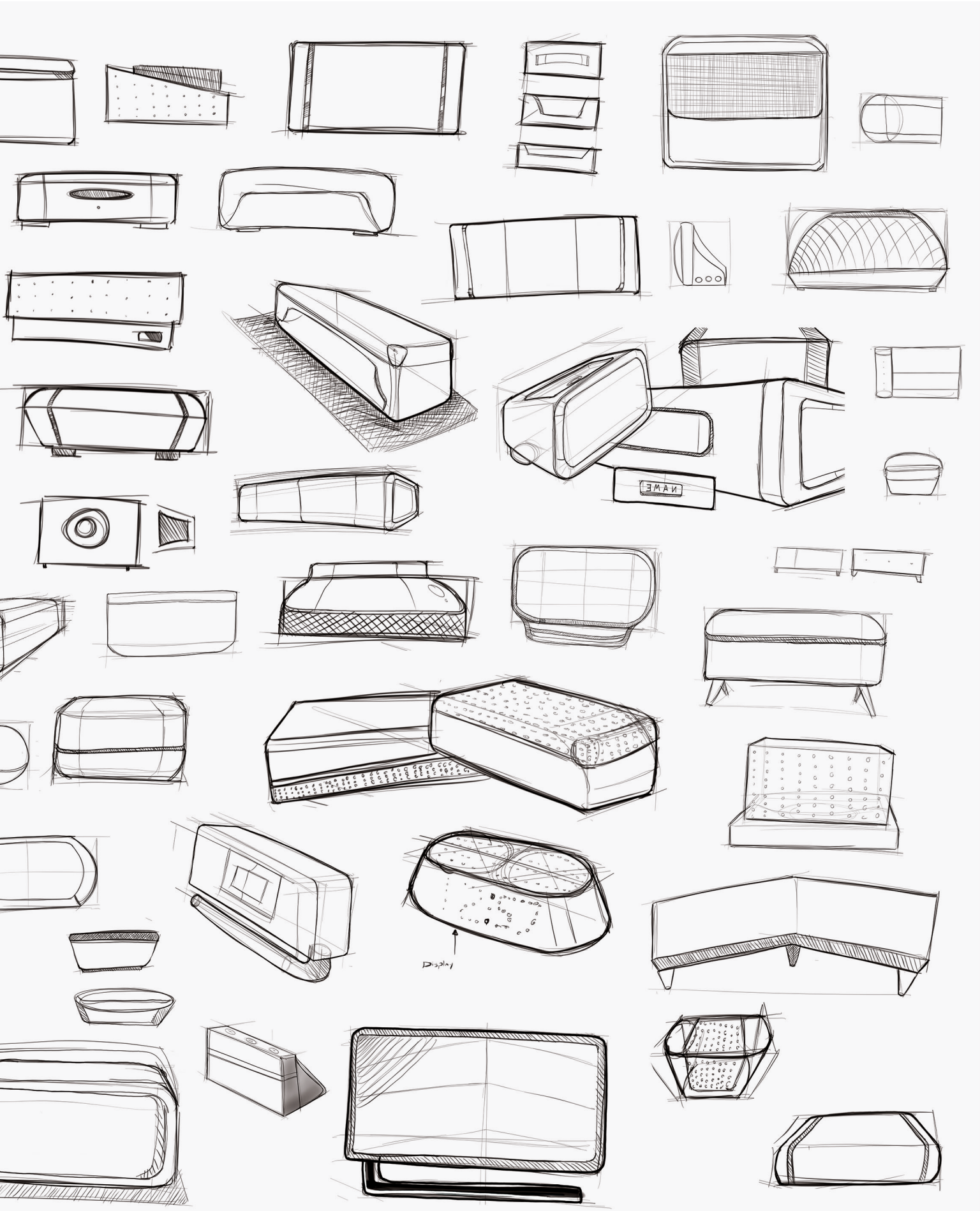
We demoed over twenty different light and sound interaction prototypes and had participants rate them on their feeling of correctness. Participants mostly aligned with what we had selected to show them and what we had internally rated as potential solutions. This helped us to validate our opinions and create the final interactions for our presentation.

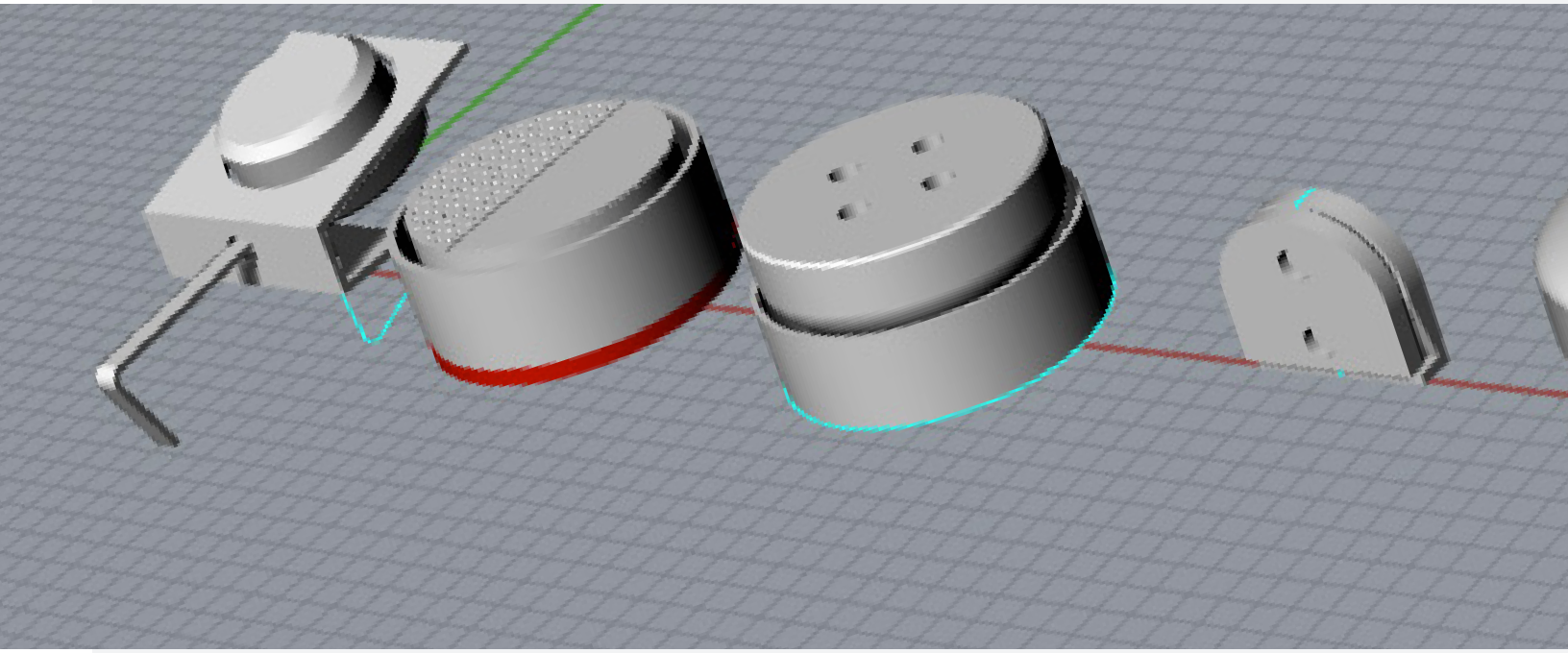
KEVIN & SOME HIERLOOMS | 03.20.18

SESSION 2 : 3.24.18.

STEAK & CHIMICHURRI PINCHO | 03.20.18

THUMBNAIL SKETCH DUMP


NAME
Display

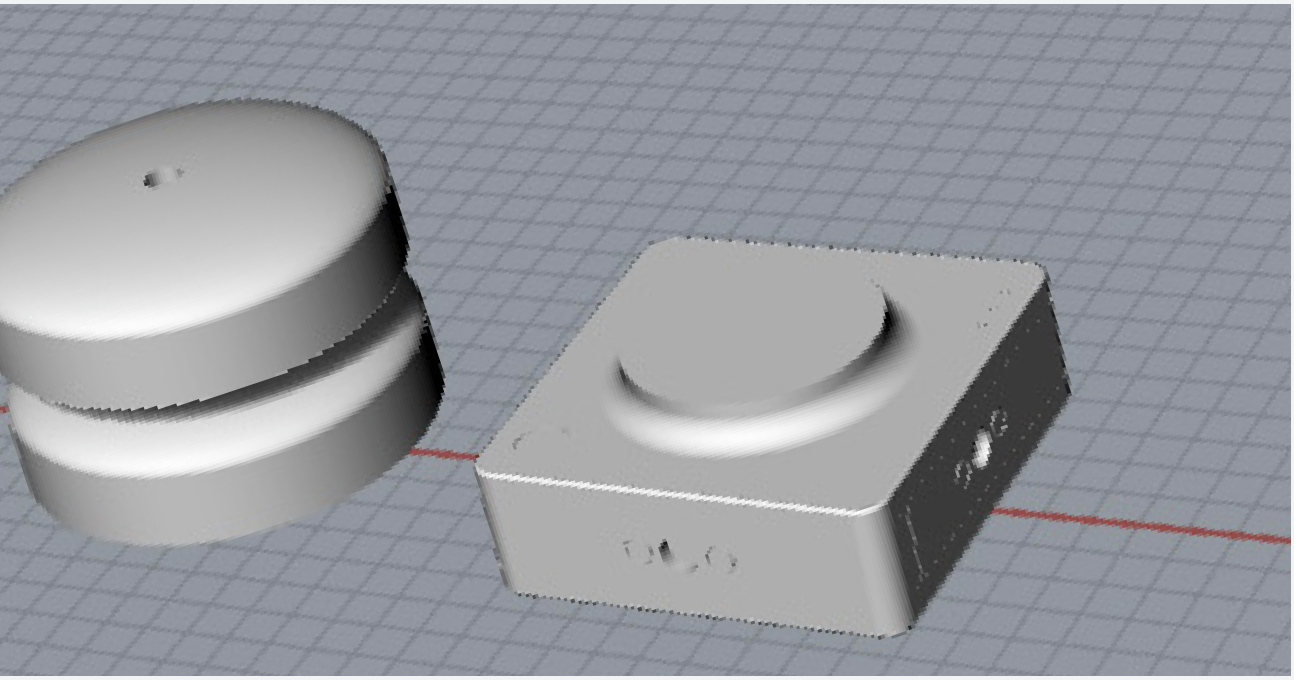


SHORT CAPTION | N41 25.117 & W120 58.292 | 00.00.00

SENSOR CONCEPTS.

Our initial concepts for sensors focus on usability. We decided to create the sensors from a utilitarian point of view. It is important to create a system that is affordable and implements just enough sensory equipment to work and not be superfluous.

Our process is a normal product design process including : sketching , 3D modeling, creation of prototype physical models, and then user testing. Before we move on to the user testing concept we have decided to accelerate the process and create models to use ourselves to verify that it is viable. We want to bring 3 refined concepts to potential users and run through the scenario of setting them up and position them to make sure that they would work in a variety of kitchens.



INITIAL

“SECRETS ARE LIES SHARING IS CARING PRIVACY IS THEFT”

DAVE EGGERS, THE CIRCLE

SENSOR ARRAY.

The first set of concepts use the idea of a central hub (an Alexa device) and a series of sensors that can be placed around the kitchen. This system draws its strength from being able to be installed in almost any kitchen.

These concepts were to test how they could attach to the wall and be manipulated to make sure the cameras and other sensory equipment is facing the right way. The focus was on manuverability and simplicity. They needed to be made of minimal moving parts as they have to be somewhat cheap to produce.

A few things we still need to think are how the magnetic plates attach to the wall. Currently they use a simple adhesive, but they would have to include a permanent structure that sits around your kitchen.

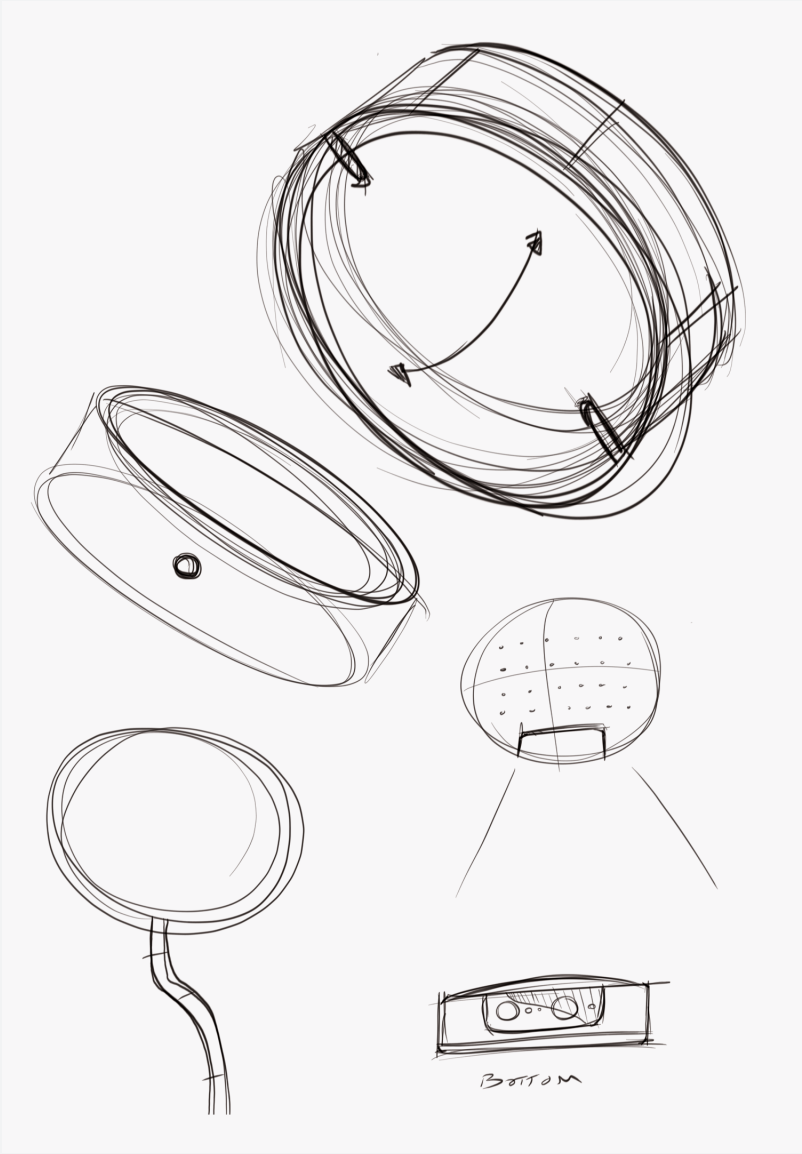
SHORT CAPTION | N41 25.117 & W120 58.292 | 00.00.00


NSOR

SWIVEL 1 is a concept that was created with the ability to be position on any flat surface in a kitchen and aimed in the correct direction to focus on a work surface or the cooking surface.

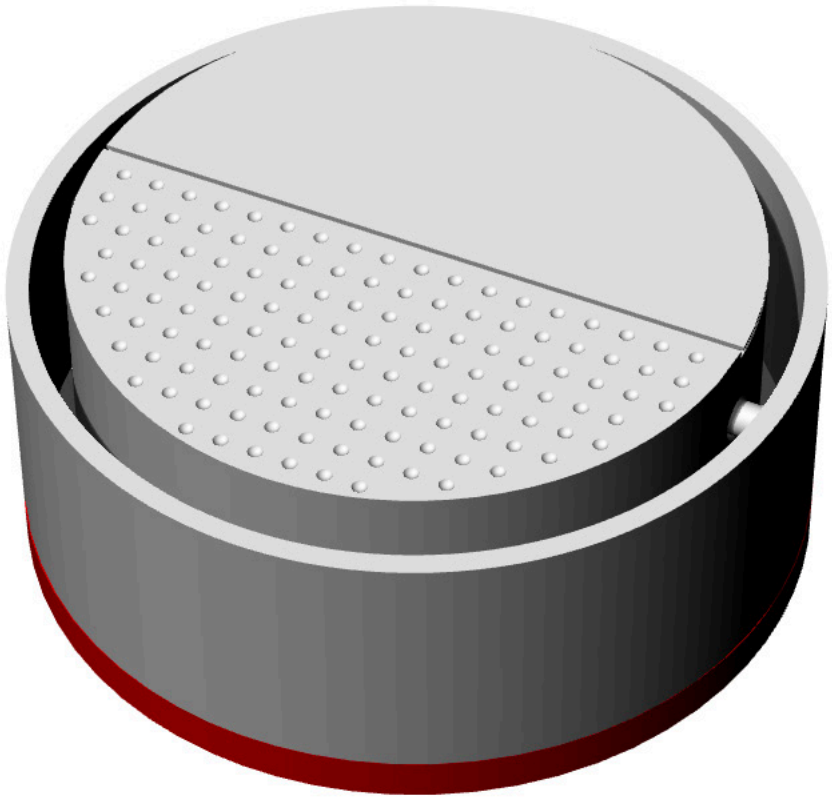
The concept would be a system of 4-5 nodes that can be placed around the kitchen. It would focus mainly on using camera elements to send feedback on what a user is doing, what ingredients are avaialble, and help a user understand at what temperatures different things finish cooking. The sensor iteself is three parts. A back plate that uses an adhesive to stick to the wall, a rotational casing that connects to the backplace via magnets, and a sensor that slots into the rotational casing. The combination of the backplate and the spindles on the rotational casing allow for a user to position and direct the cameras towards their workspaces.

As far as realization, this product seems like it would be simple to make. The problem with this concept becomes aparent when we 3D printed it. We realized that the mechanism is overcomplicated and that there are better ways to achieve the amount of freedom of movement with less parts.

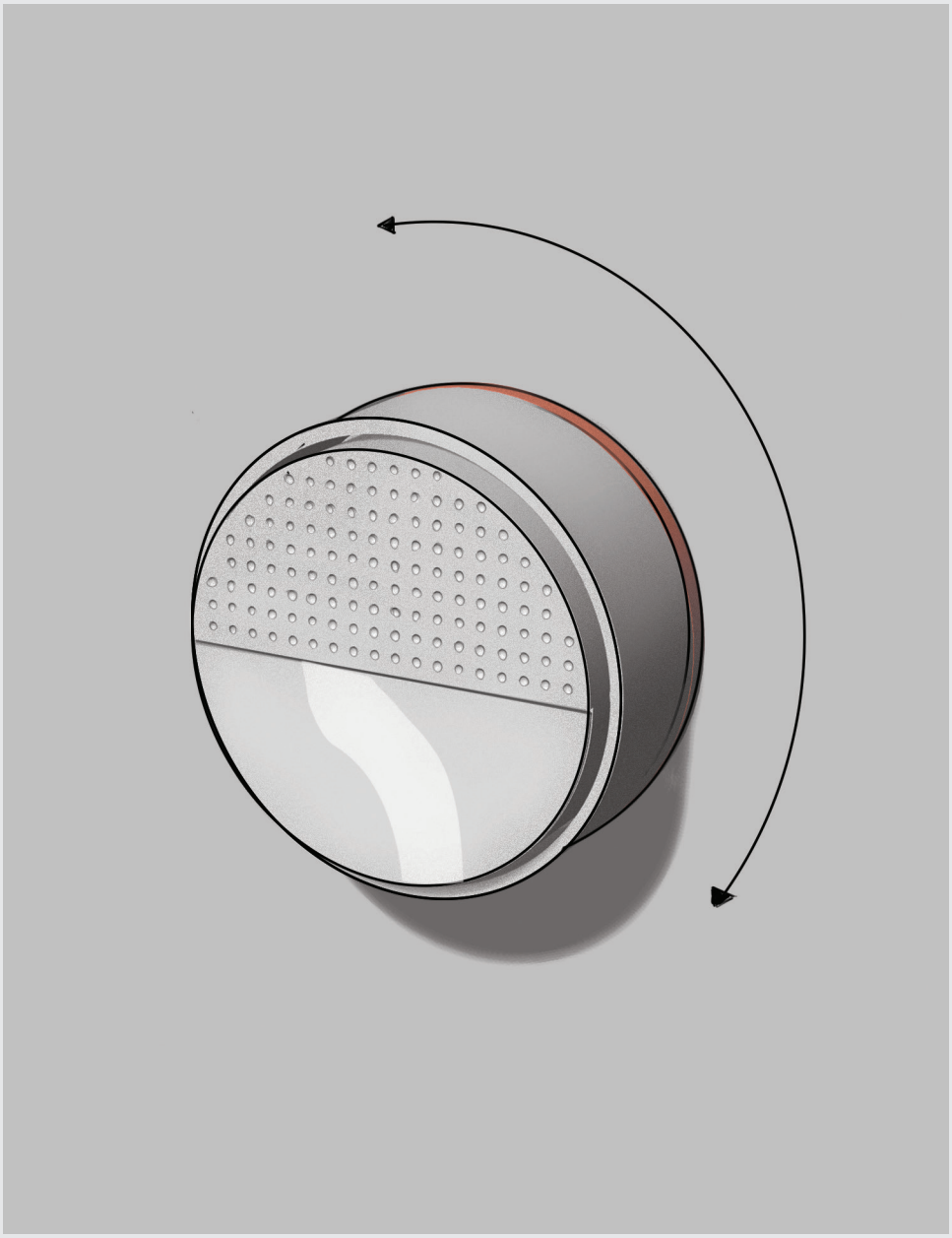


SWIVEL 1 SKETCHBOOK IDEATION | 02.03.18

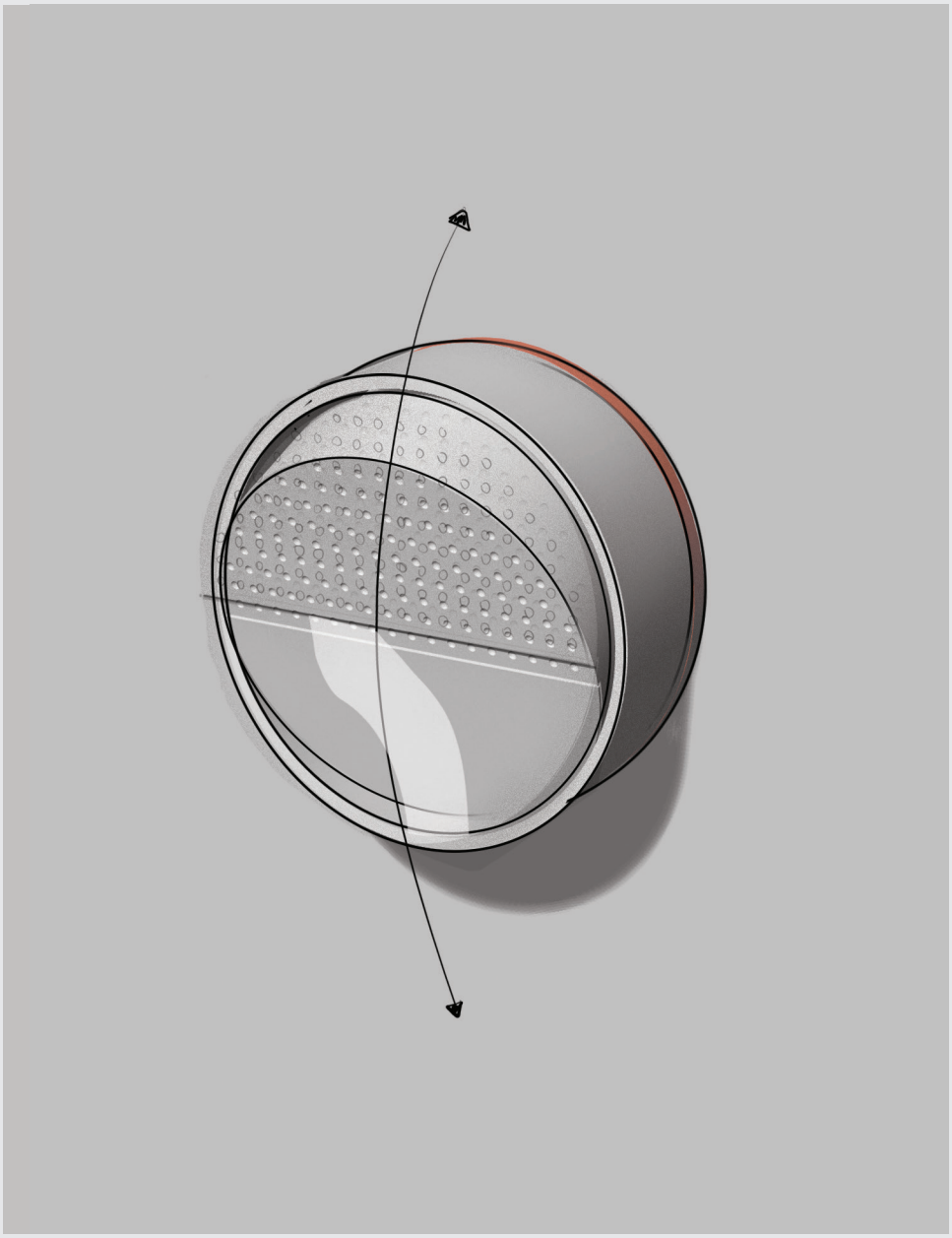
SWIVEL 1.



SWIVEL 1 3D VISUALIZATION | 02.03.18



The magnetic base allows for SWIVEL 1
to rotate a full 360 degrees.



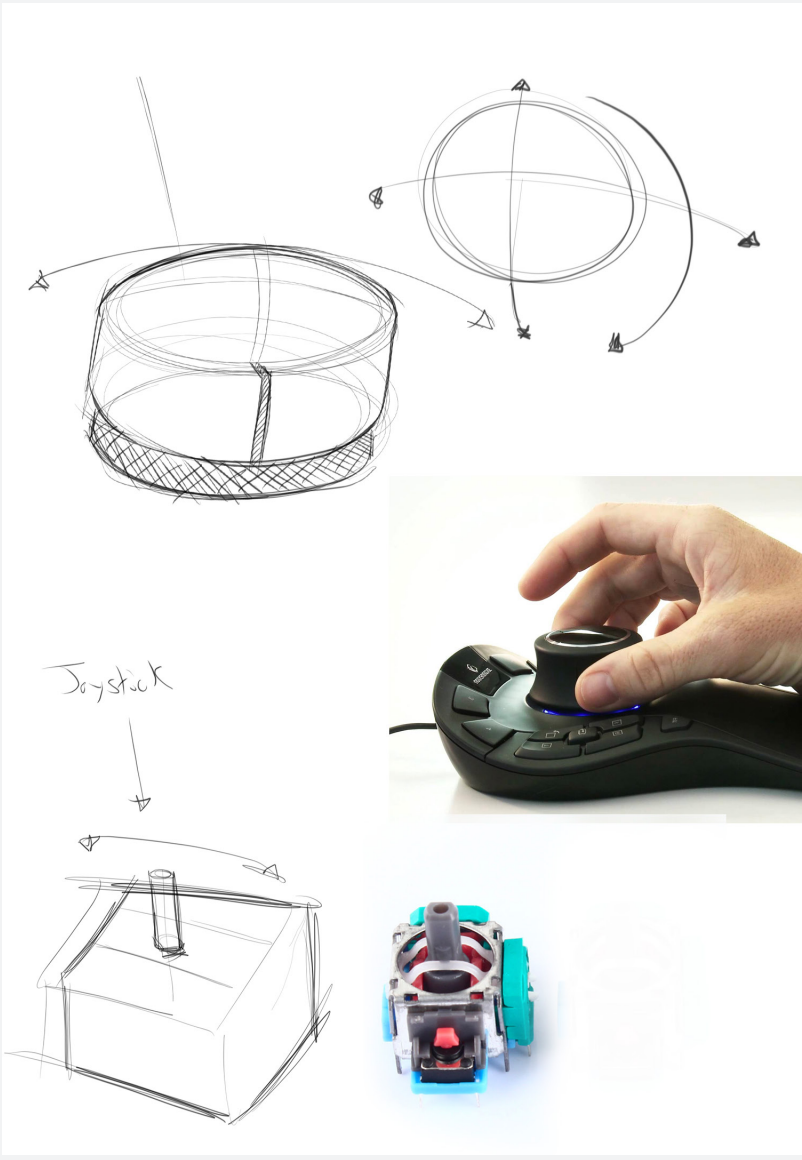
The main sensor device can be tilted inside the frame so a user can adjust where the sensor is looking.

SWIVEL 2.

SWIVEL 2 was created with the same idea behind the first iteration. It is made to be mounted to a flat surface and then position by a user to point in the direction they need it to. The concept was take from the idea of a joystick or 3D mouse.

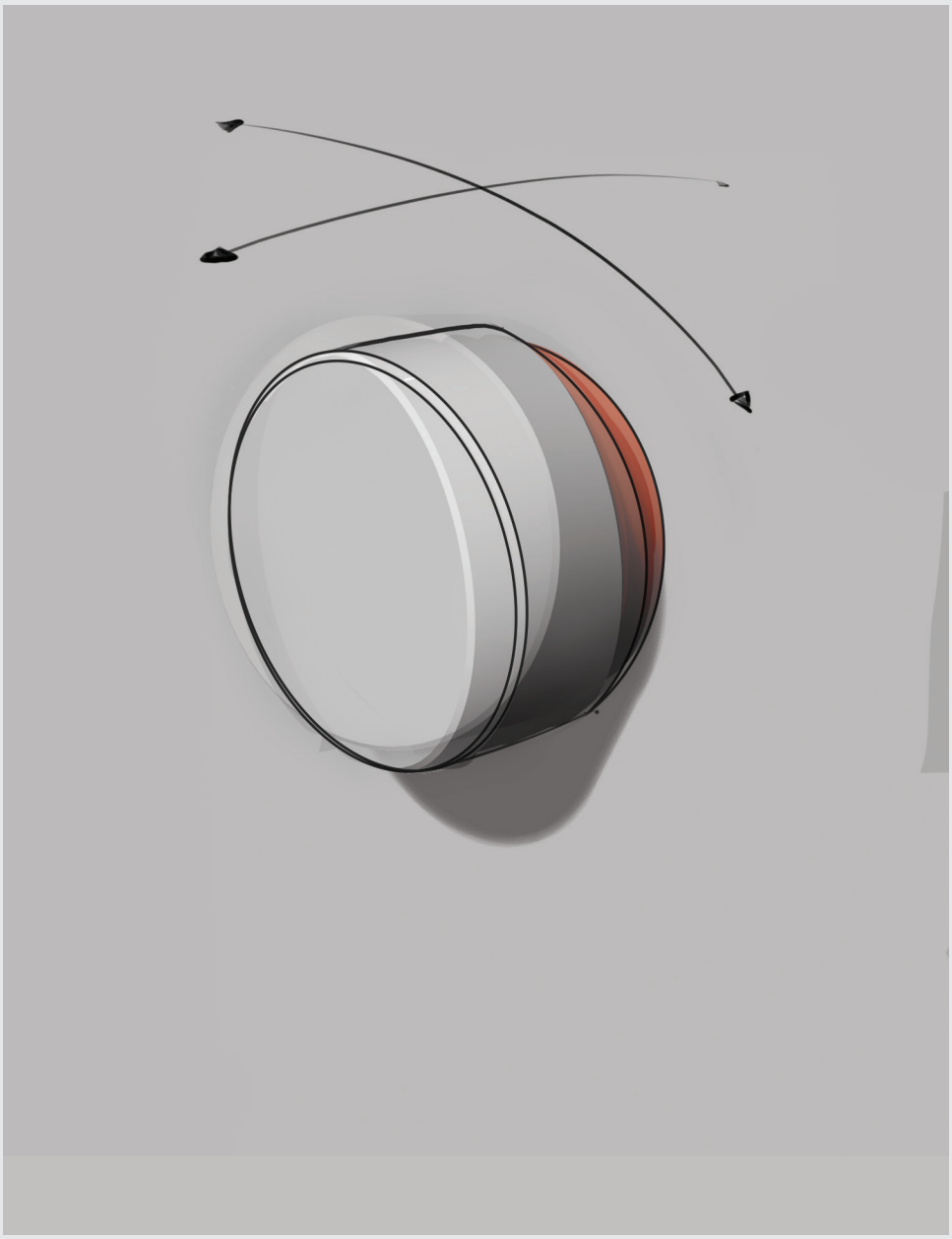
This concept would be like the other swivel concept, in that it would be around 4-5 sensors that are mostly camera based. They would be able to act as “eyes” for the main unit and allow it to identify products, cooking technique, and even tempurature of different ingredients as they cook. The sensor would be a single unit made of three main parts. A flat circular base to attach to a flat surface via adhesive that acts as an offset, a gearbox for movement, and a sensor housing that would be mounted on the gearbox. A user could easily grab and position the gear box in a variety of ways. The movment would be limited by overhang of the mounted sensor as well as the depth of the wall mount.

We mocked this concept up and came to realize that it is a little bit cumbersome. The tolerances to make sure that it can have a large freedom of movement makes it larger than we intially hoped and it feels like it is protruding from the wall it is positioned on.

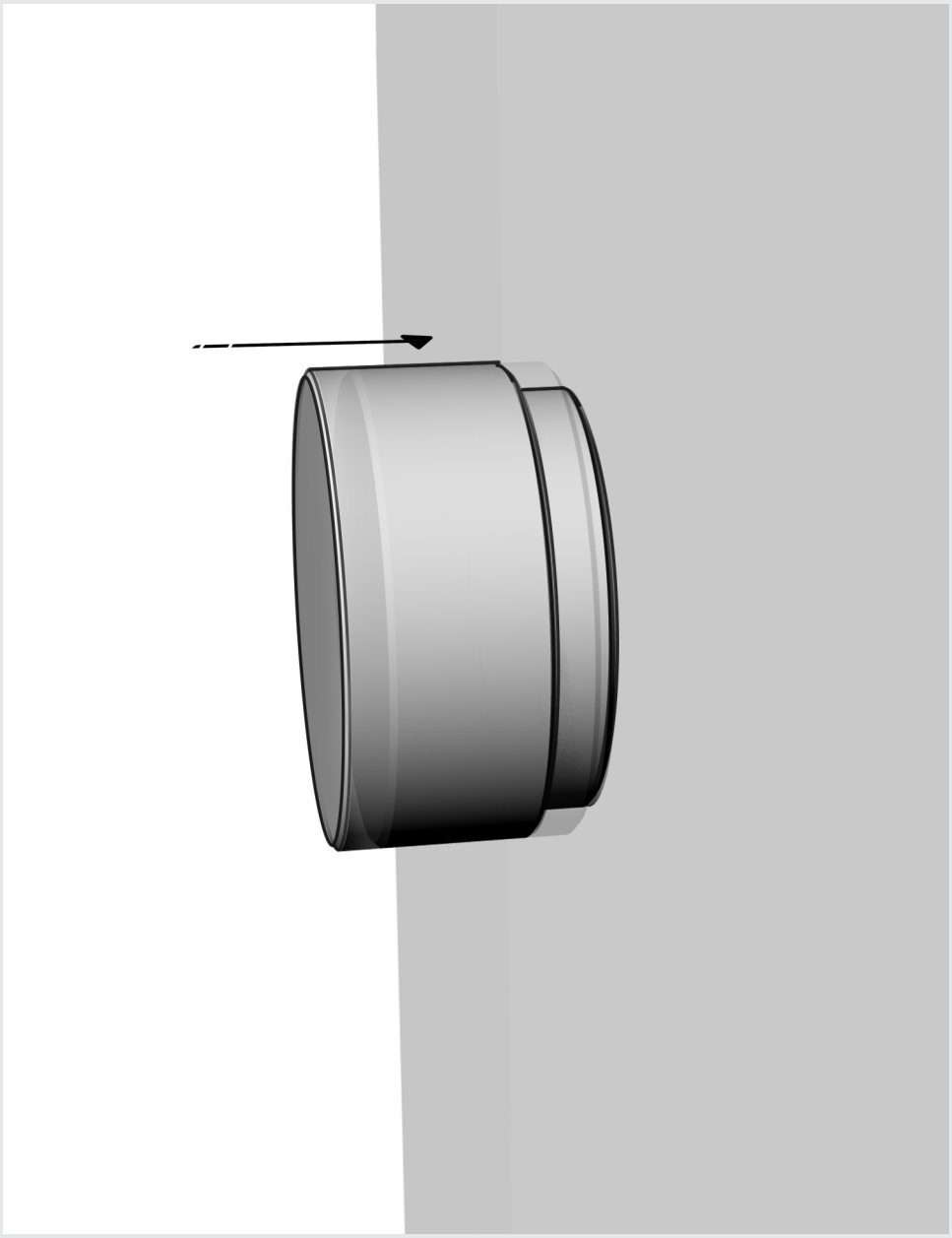


SWIVEL 2 SKETCHBOOK IDEATION | 02.03.18

SWIVEL 2 3D VISUALIZATION | 02.03.18



SWIVEL 2 is made to tilt and stick in any position a gamer controller stick could. This means it has around 120-160 degrees of freedom in four directions.

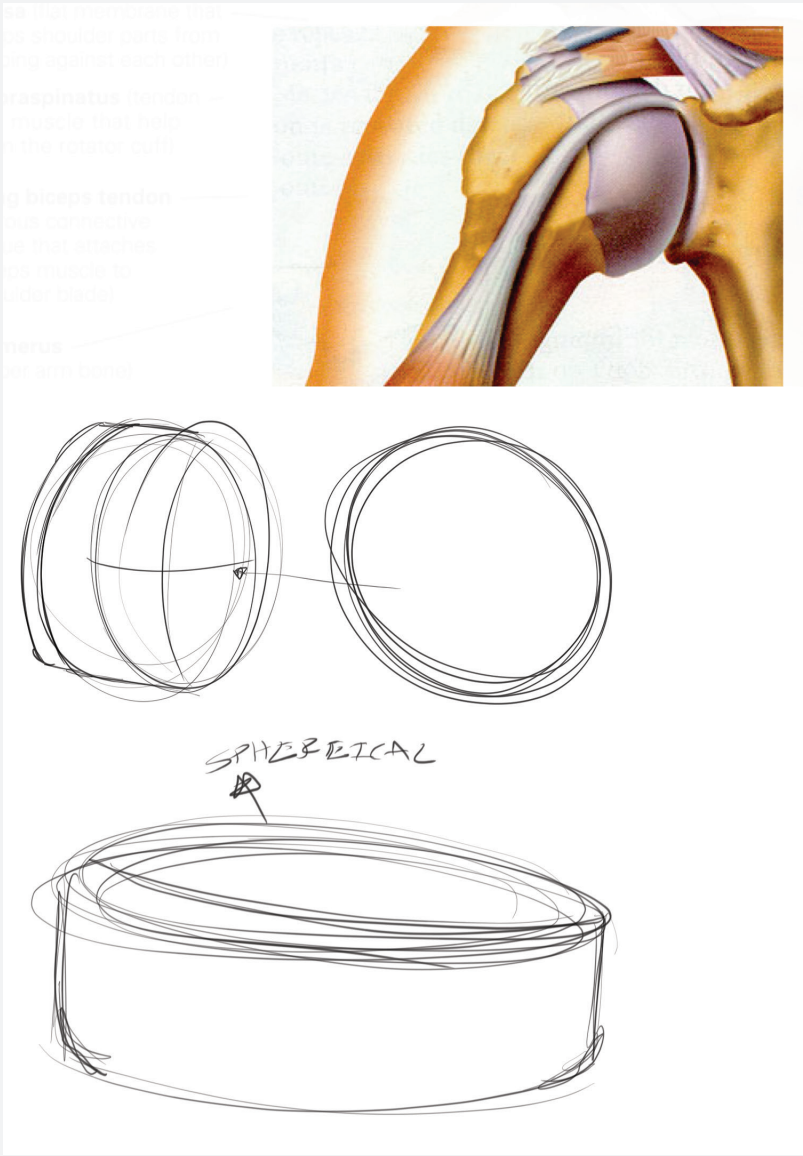


SWIVEL 2 also features a clickable button that allows it to be easily turned on and off.

SWIVEL 3 is another take on creating a low profile sensor that can be positioned on a flat surface. This concept was based on the idea of a rotator cuff.

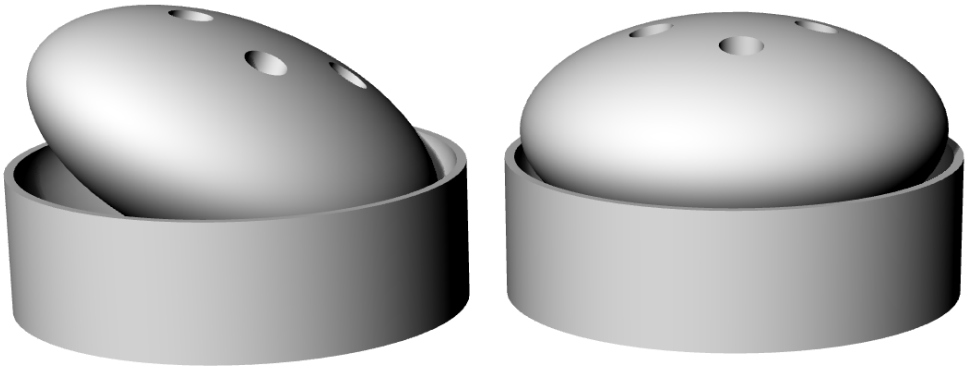
This sensor would be place at multiple spots around the kitchen and then pointed in the correct direction via a magnetic connection. The base that connects to the wall has a spherical indentation made of a magnetic material that allows the sensor to attach, but still freely rotate. In theory a strong magnetic connection should be able to hold a large mass that could contain a battery, camera sensors, and corresponding boards.

In practice the shape we chose for the sensor does not work. We believe that this idea is viable and hope to take it further. We believe that looking more closely at how organic rotator cuffs are designed can help us. We will be implementing a shallower, smaller surface on the base and then creating a more oversized sensor to allow it to rotate through a more varied set of angles.

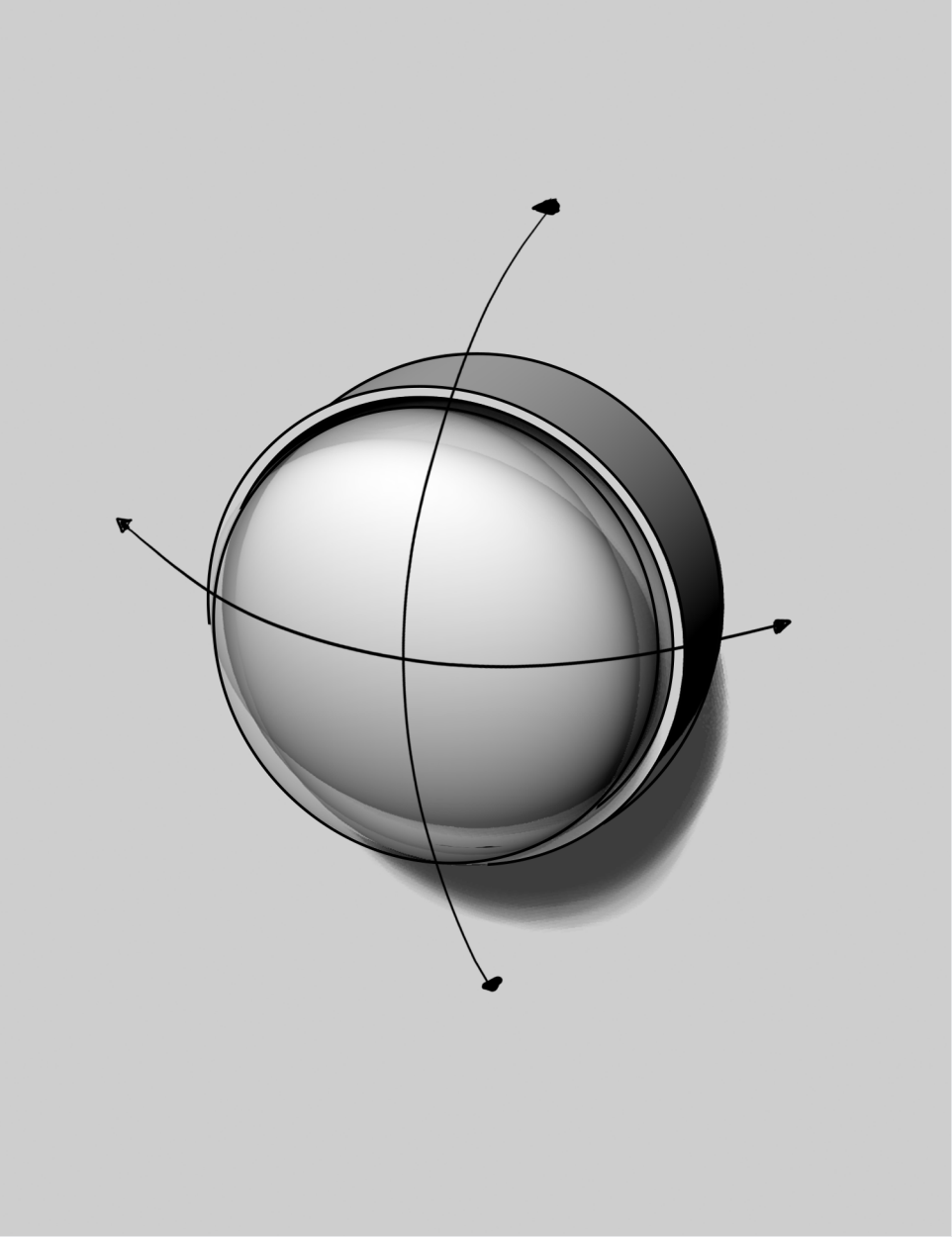


SWIVEL 3 SKETCHBOOK IDEATION | 02.03.18

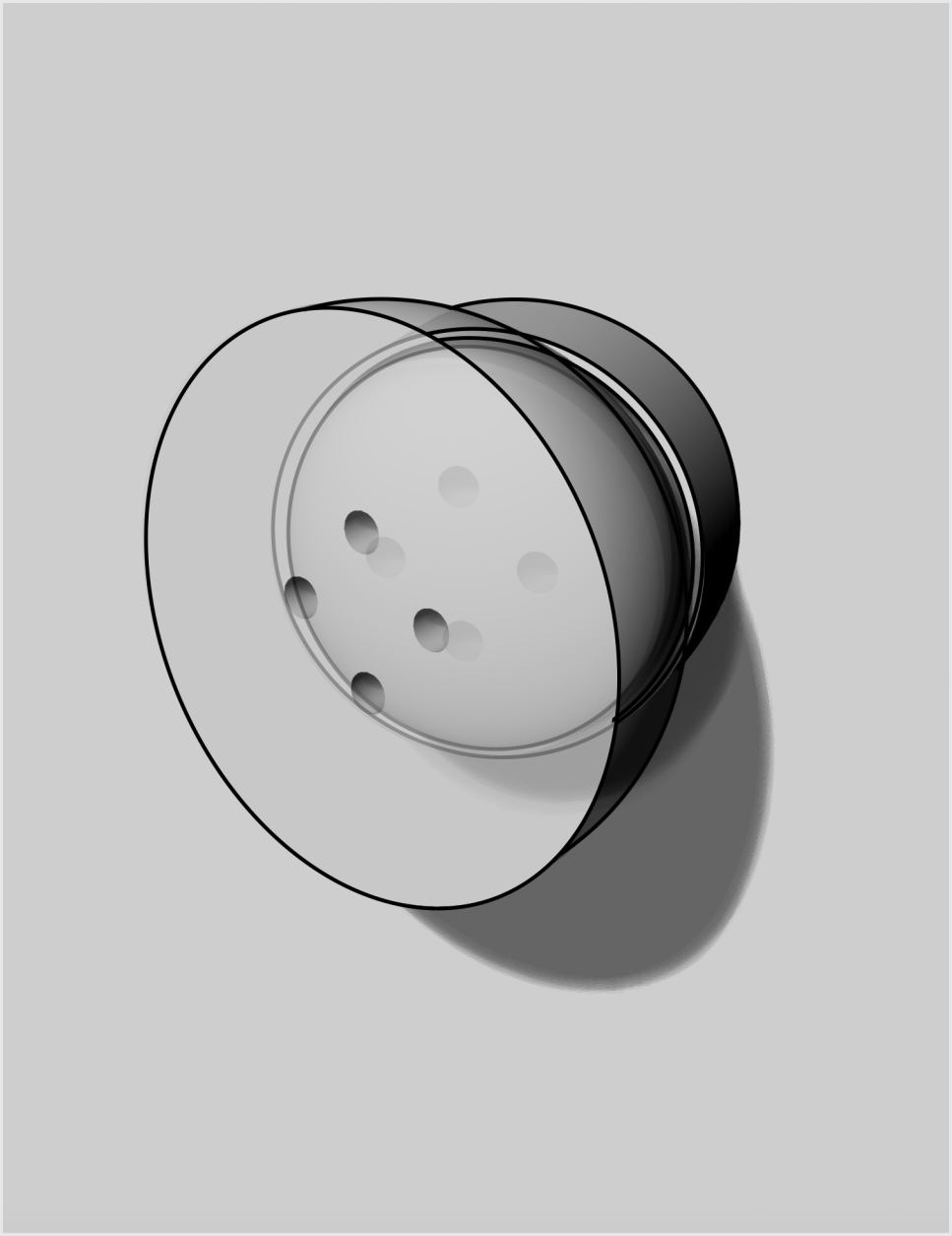
SWIVEL 3.



SWIVEL 3 3D VISUALIZATION | 02.03.18



SWIVEL 3 was desigined to rotate inside
a socket a lot like a shoulder joint.

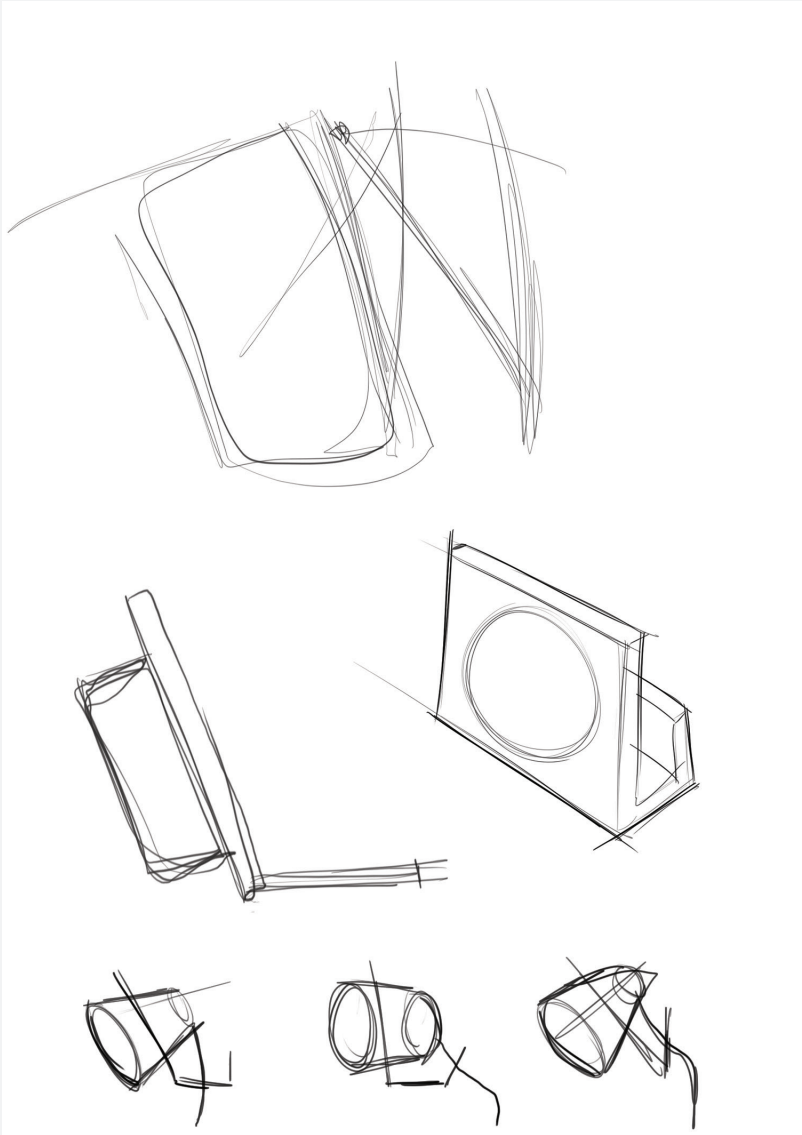


SWIVEL 3 could be used with multiple differnt sized sensors with different features.

The CORDED 1 concept was created to address the issue of environmental impact. Instead of a rechargeable or replaceable battery it uses a constant corded connection to power the sensor. This would significantly increase the lifetime of the product, make it cheaper, and better for the environment.

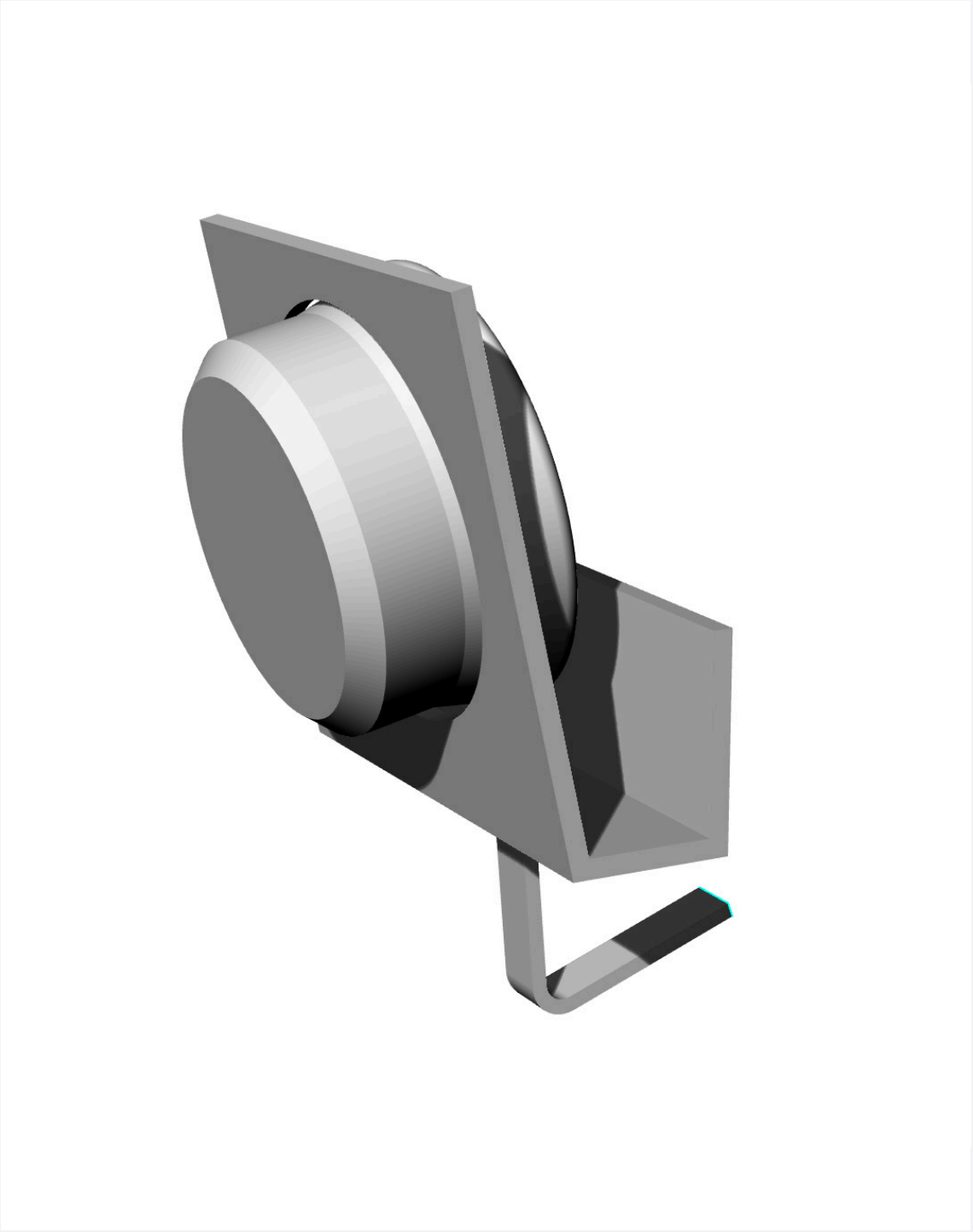
This concept consists of three parts. A bent metal wall-mount that screws into the wall, a sensor that is wedge shaped, and a cord that plugs into the bottom of the of the sensor. We imagine only having a few of these sensors 2-3 as they take up more space and all have to be plugged in. The unit would have to feature a wide-angle camera as it would not be able to roate or be adjusted.

This concept is probably one of the most environmentally conscious solutions, but ultimately when we talked to people about whether they would want a cord or a not they told us that a cord would be hard to manage in the kitchen, especially near hot surfaces.

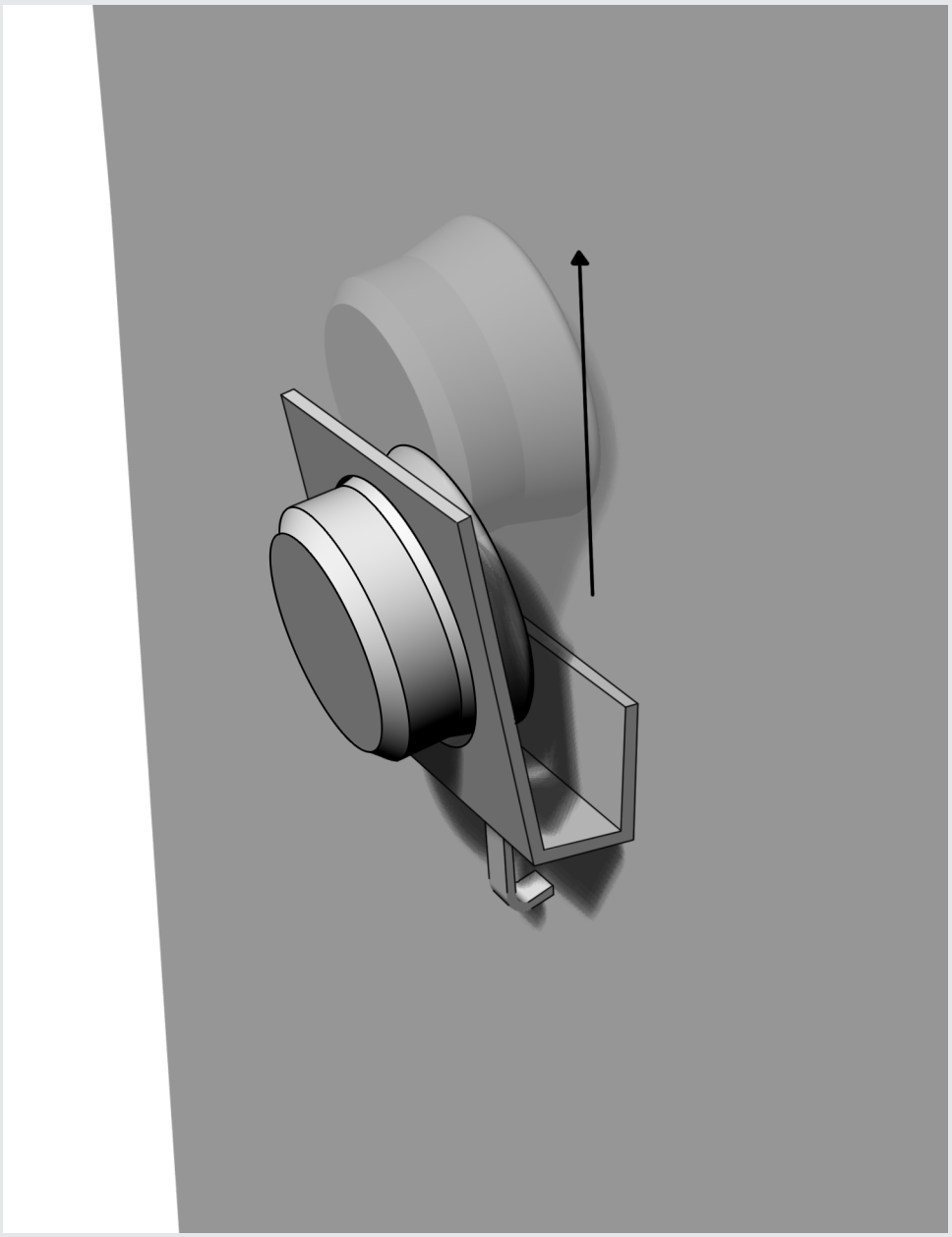


CORDED 1 SKETCHBOOK IDEATION | 02.03.18

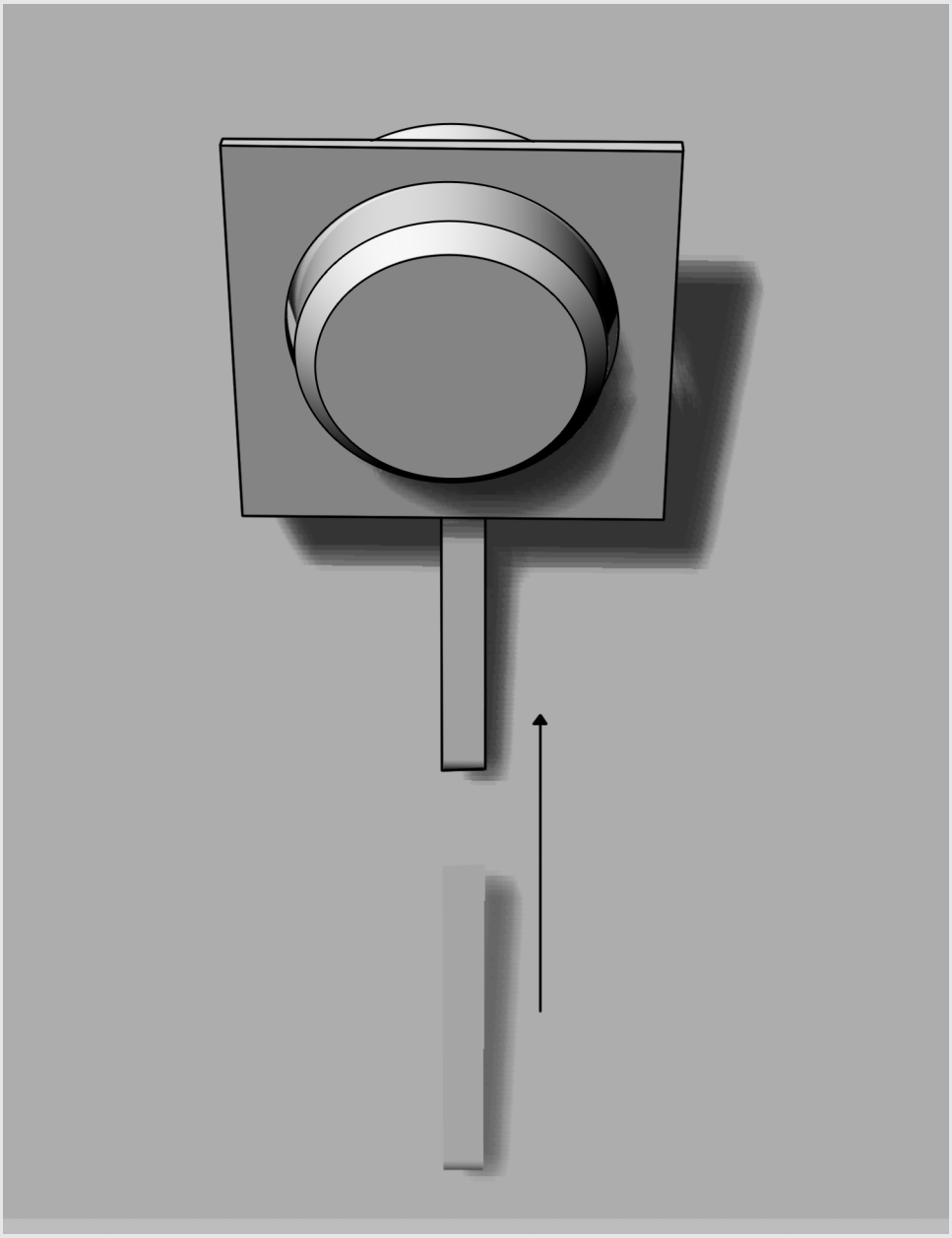
CORDED 1.



CORDED 1 3D VISUALIZATION | 02.03.18



CORDED 1 Is held in place by gravity
and a friction fit.

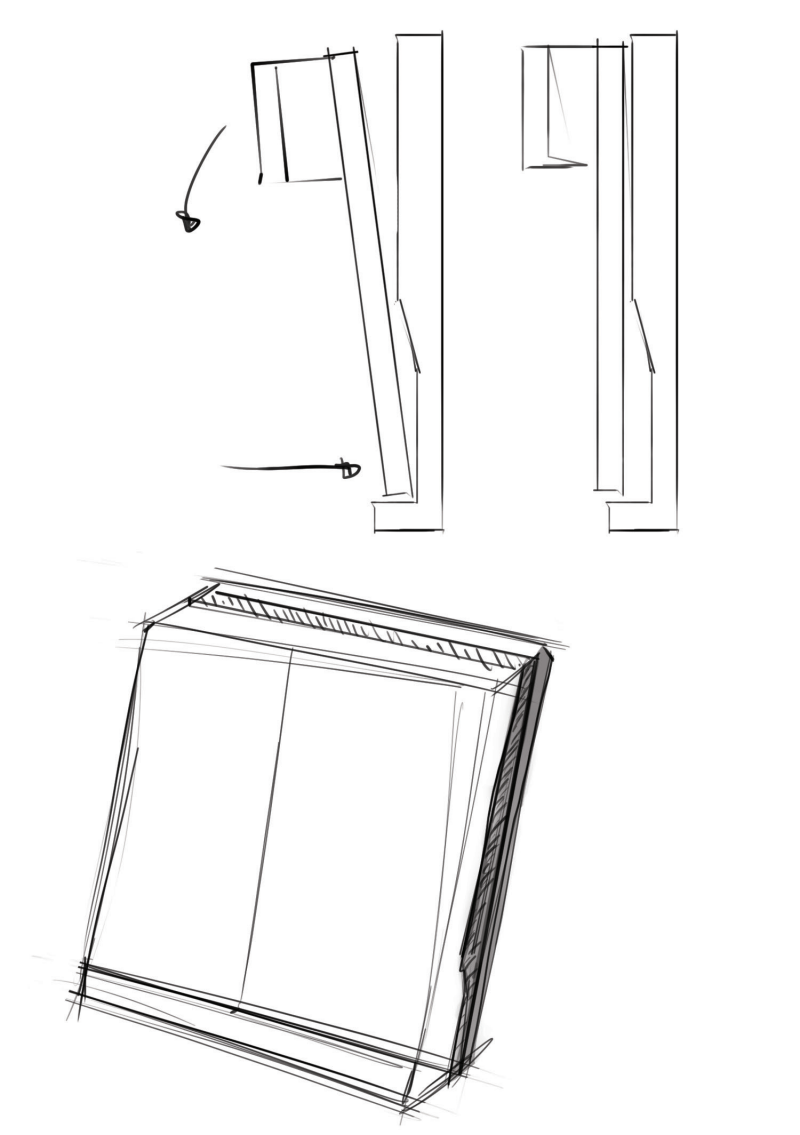


The cord is easily plugged into the bottom of the unit for better cable mangement.

SWTICH 1 is a concept that was created to show how consent can be made physical.

The idea behind the concept is that the sensor permenatly lives on your wall and is easily turned on and off. The idea of a giant switch makes the power on operation into a completely intentional choice. A user cannot accidentally turn the device on and even if it was it shows through its change in form that it has been turned on.

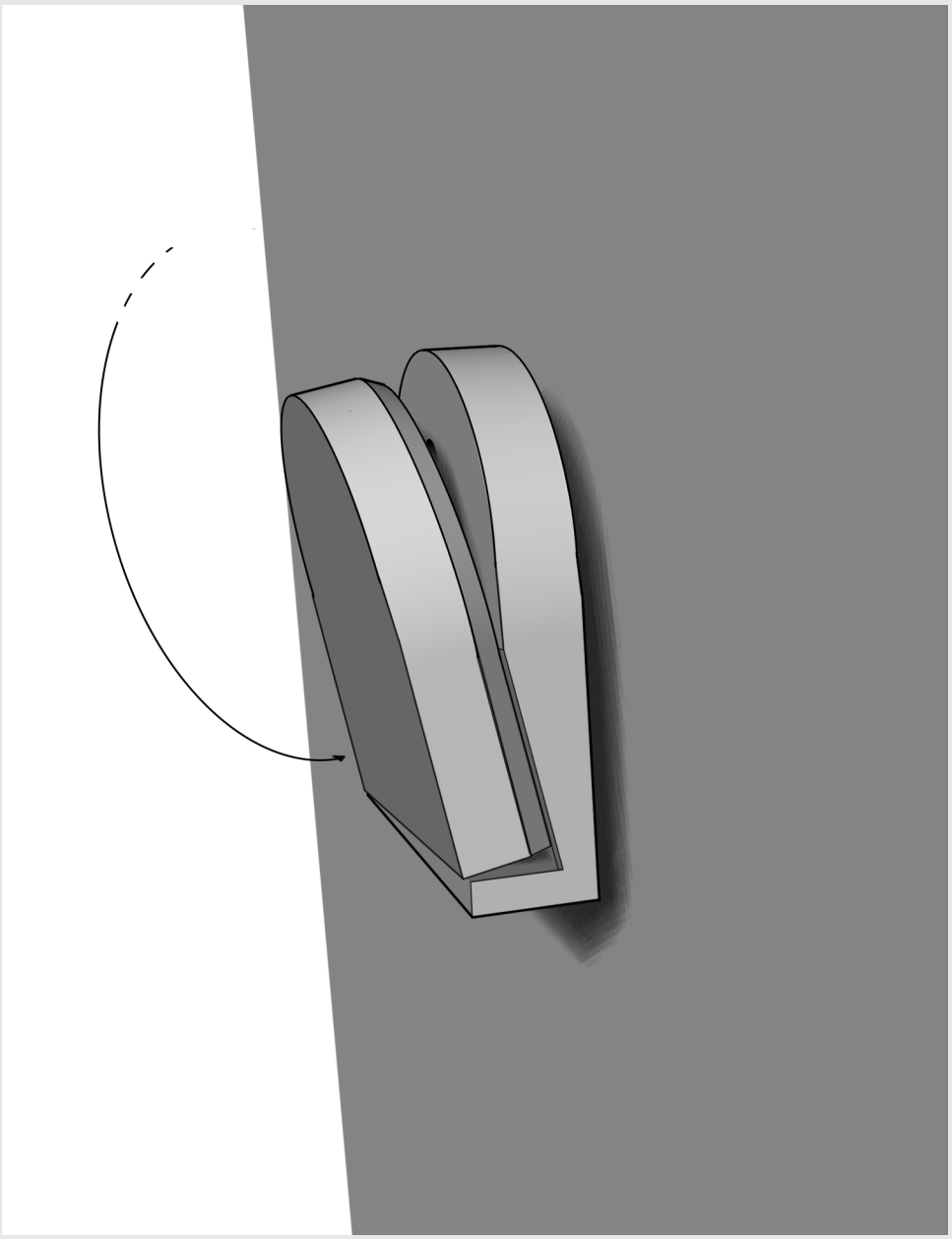
This concept was a neat idea, but in practice having a giant switch requires a lot of mechanical parts that we deemed uncessary. It also makes the device a permenant part of the kitchen instead of a temporary one to use while cooking.



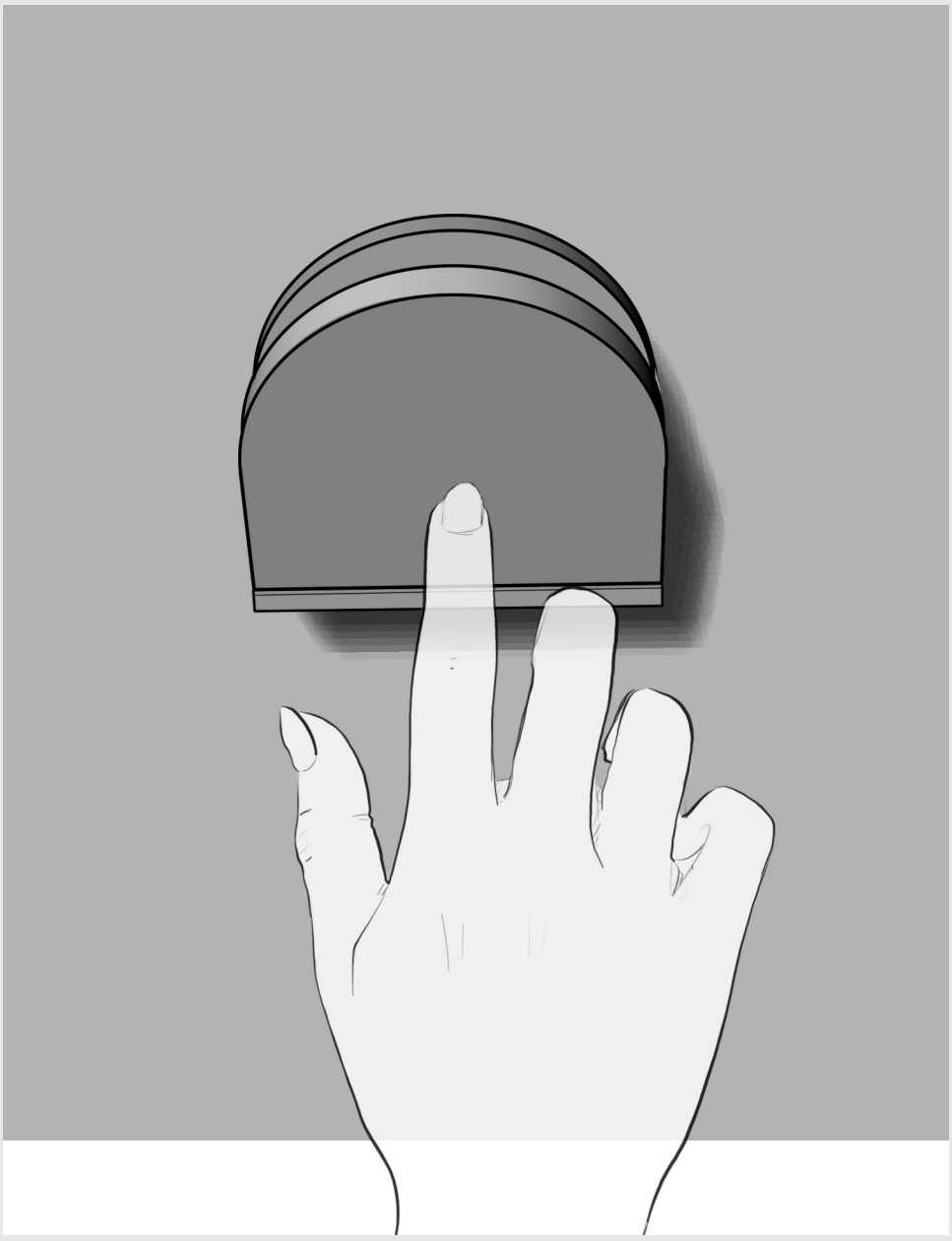
SWITCH 1 SKETCHBOOK IDEATION | 02.03.18

SWITCH 1.

SWITCH 1 3D VISUALIZATION | 02.03.18



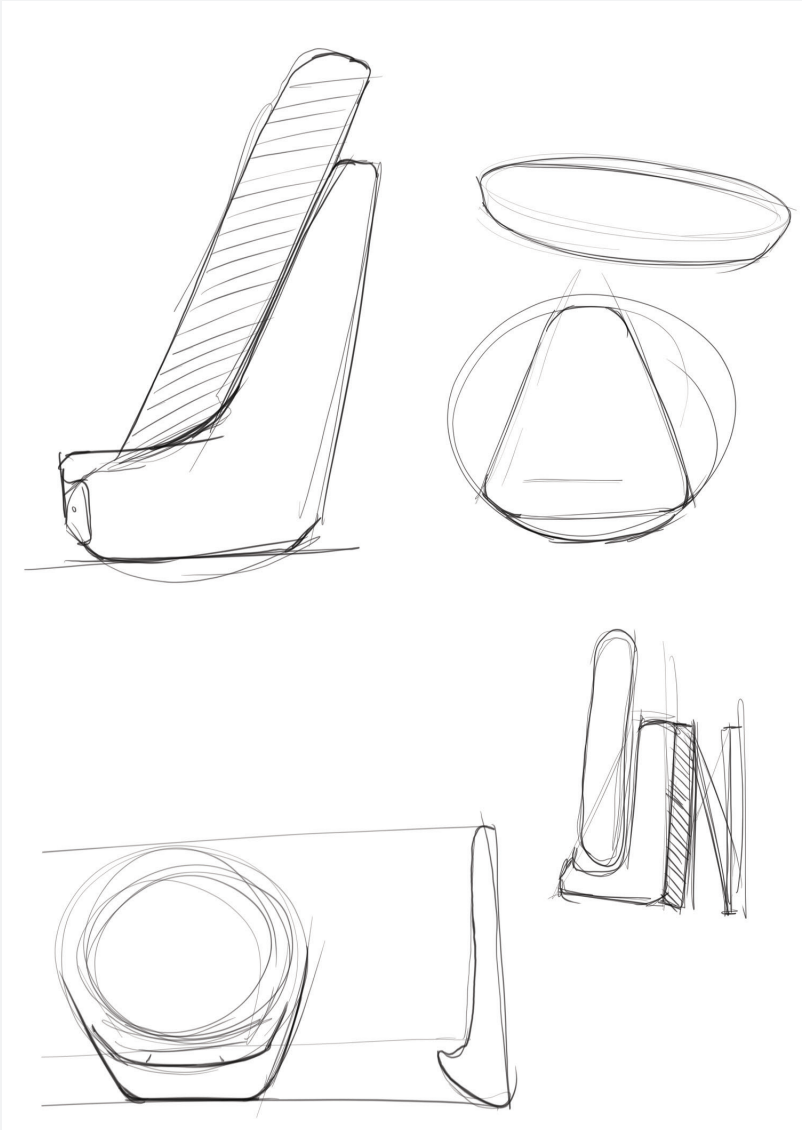
The device uses an off-center hing to easily be switched on and off.



SWITCH 1 features a large flat surface so that a user can have fun flipping the switch.

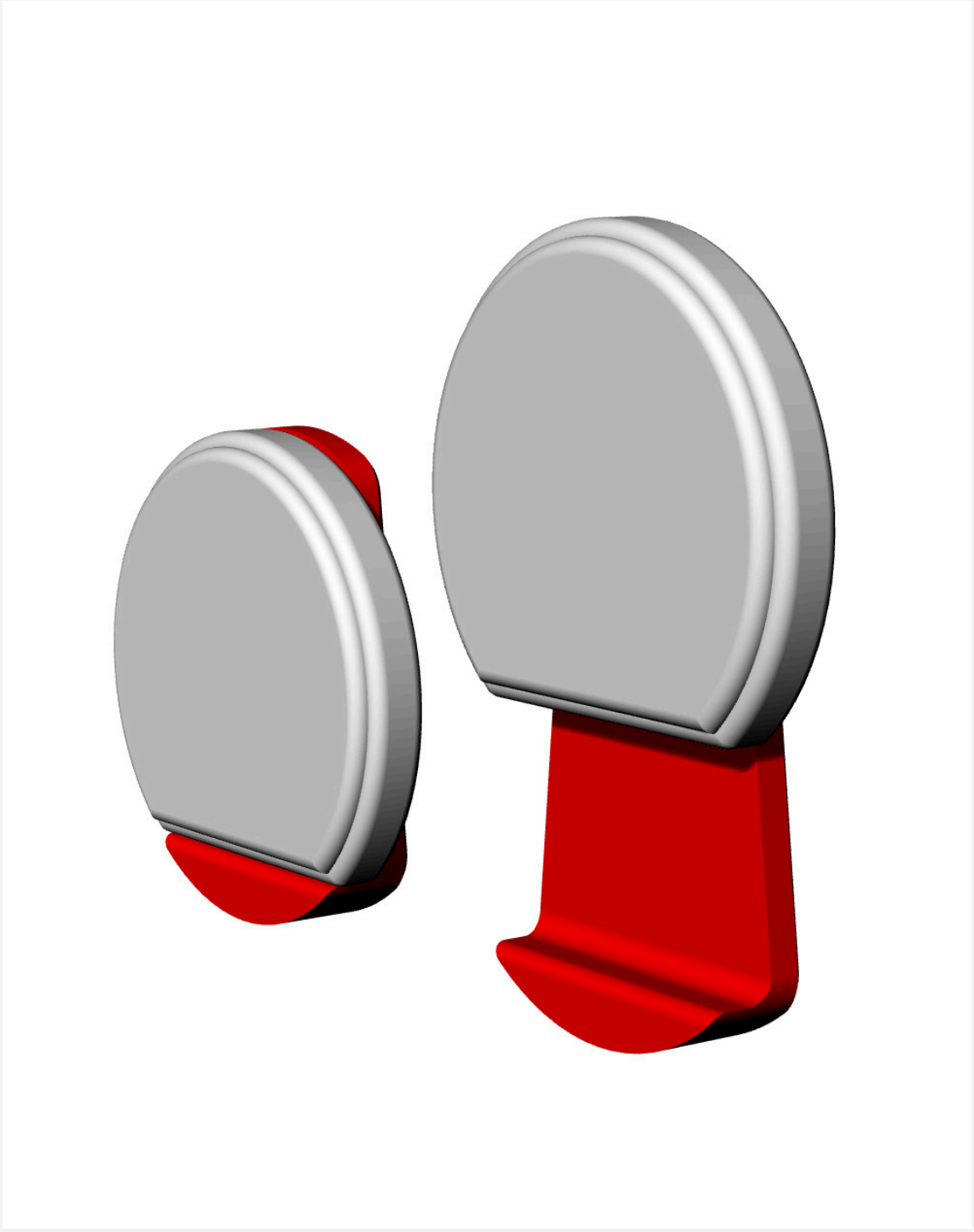
The DOCK 1 concept was created while thinking about what the sensor could be if it had a screen. The idea that it could be its own seperate device that detached from the wall (or power source) and could be held and used as its own screen was interesting.

This concept was not chosen as it violated our idea of needing more screens in your life. With computers, tablets, and phones already being commonplace a user should already have a way to recieve extra info. Cutting out a screen also saves cost not only in parts, but in development as well.

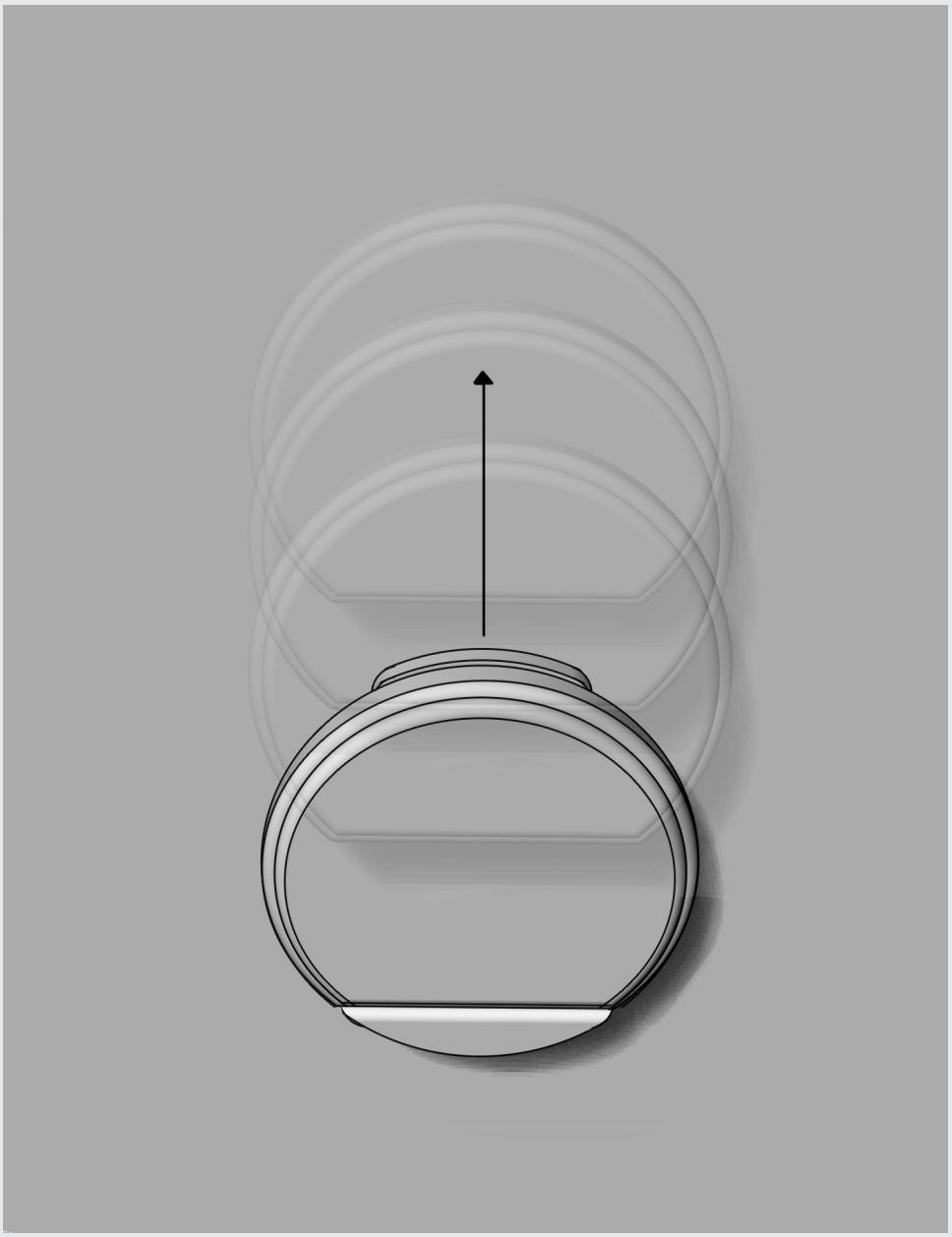


DOCK 1 SKETCHBOOK IDEATION | 02.03.18

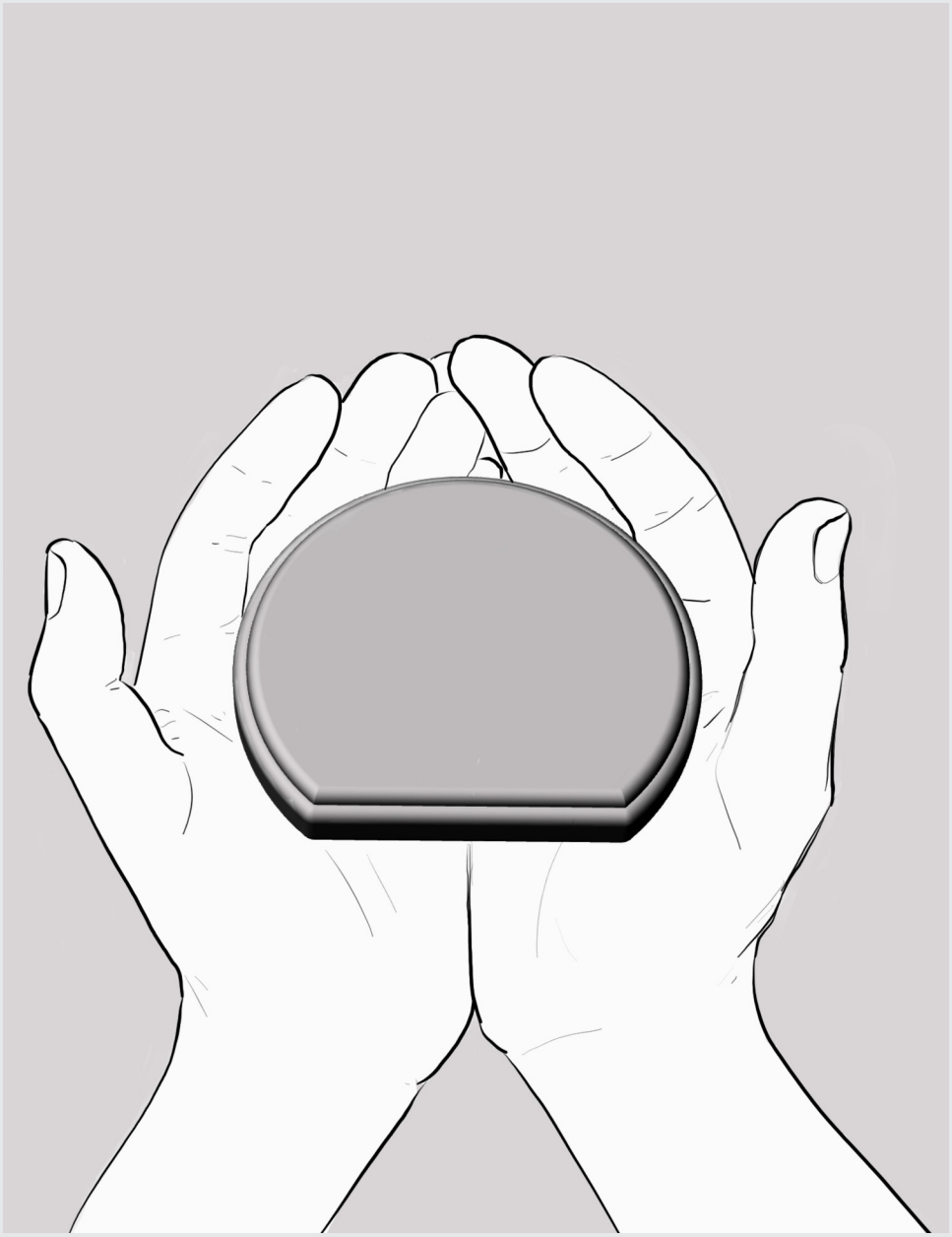
DOCK 1.



DOCK 1 3D VISUALIZATION | 02.03.18



DOCK 1 was made with a simple usable touchscreen device in mind.

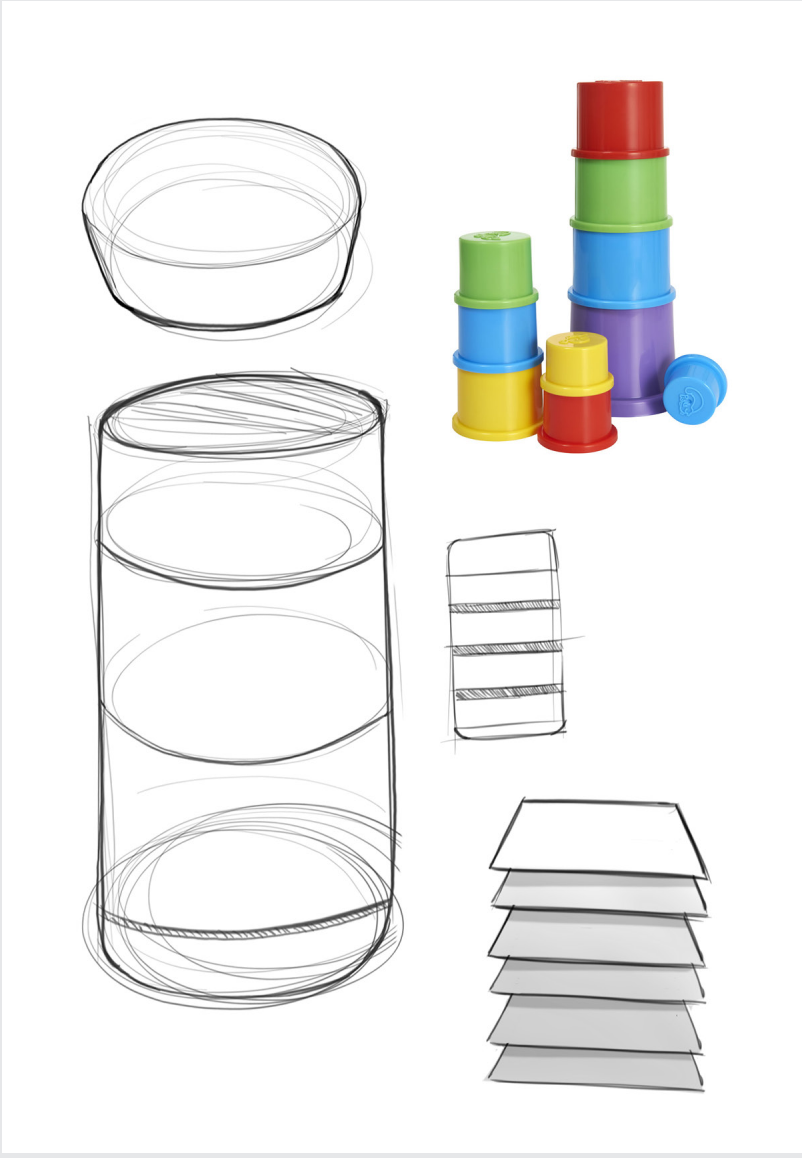


This device would be able to display stats, recipe info, and other relevant data points to a user.

STACK 1 is was created with the idea of saving space in mind. Each sensor is created to nest inside of another. A base is situated somewhere in your kitchen and when you are finished the units stack together to charge.

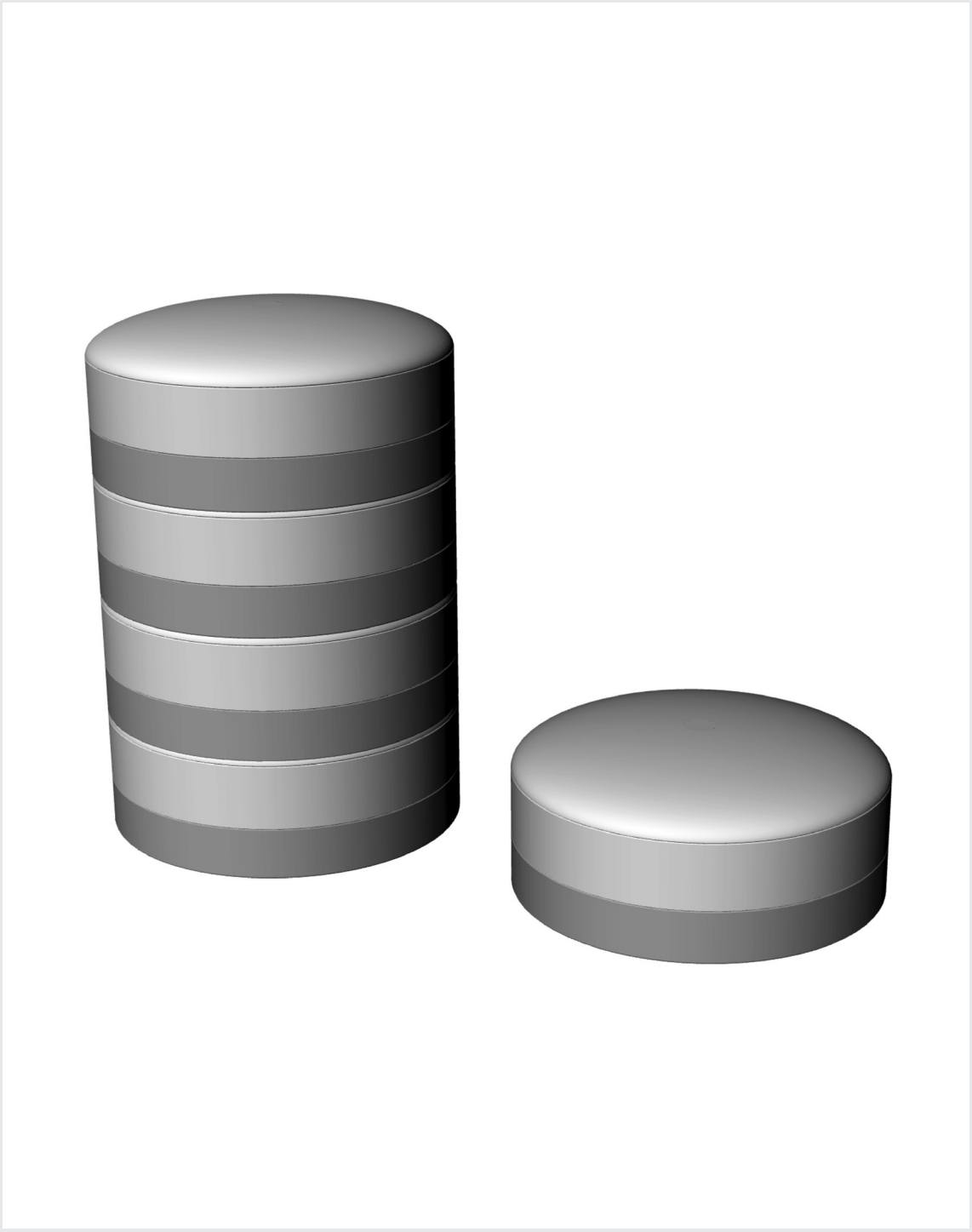
The stackability is very important to the concept as we wanted to address the need to not clutter a kitchen. We decided on a hemispherical shape that would nest inside each other using a standard magnet.

This concept was discarded for a multitude of reasons. The biggest being that the power technology required to charge things in a stack takes up a lot of internal space and would add to the overall size of each of the sensors.

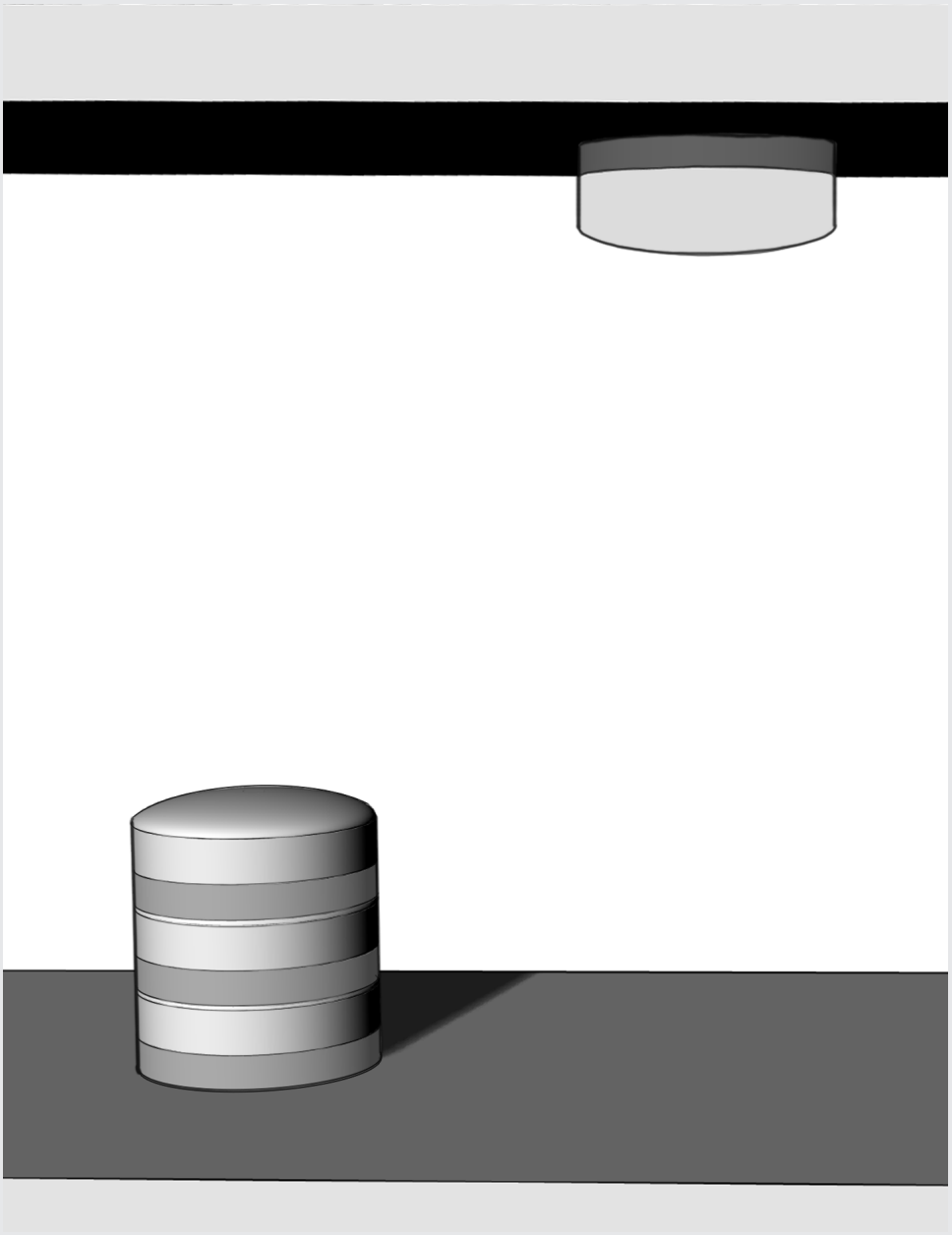


STACK 1 SKETCHBOOK IDEATION | 02.03.18

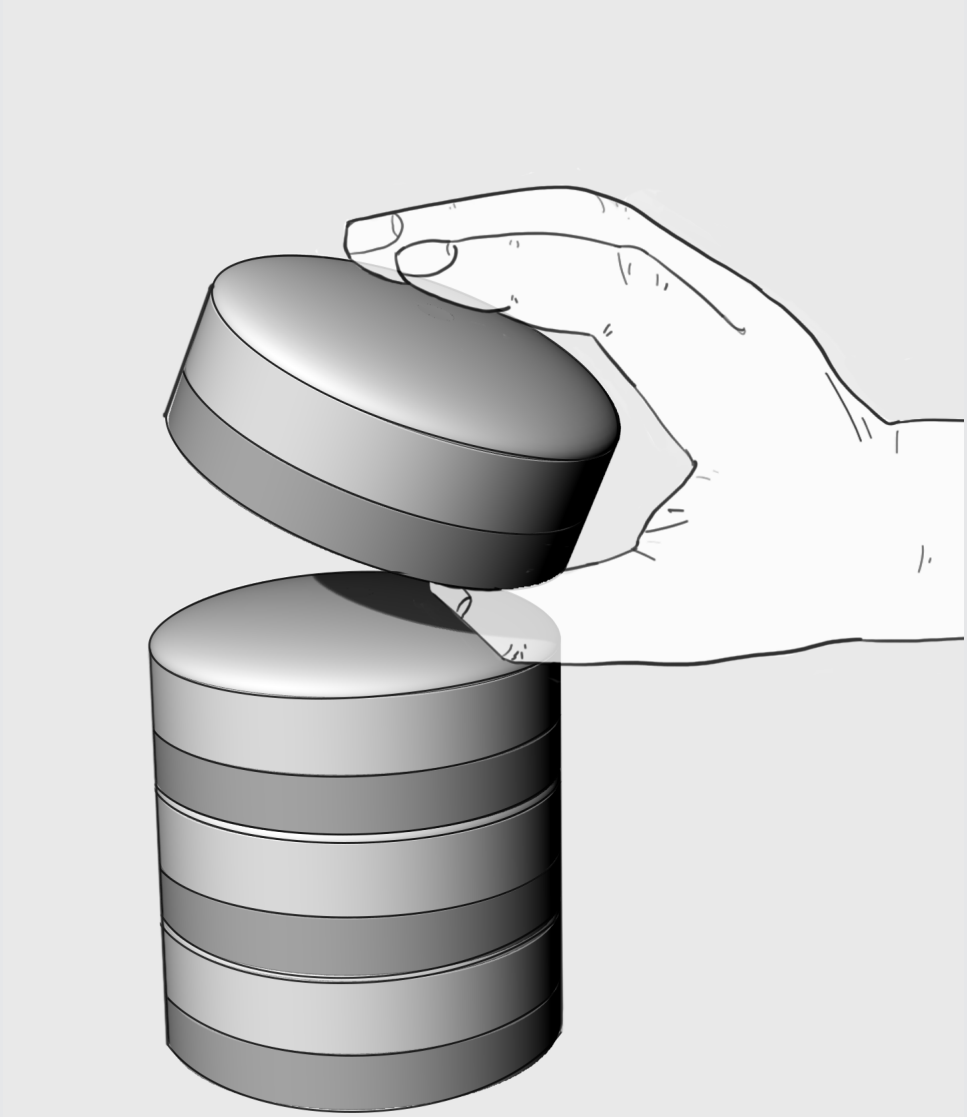
STACK 1.



STACK 1 3D VISUALIZATION | 02.03.18



STACK 1 creates a conveninet place to store your devices.

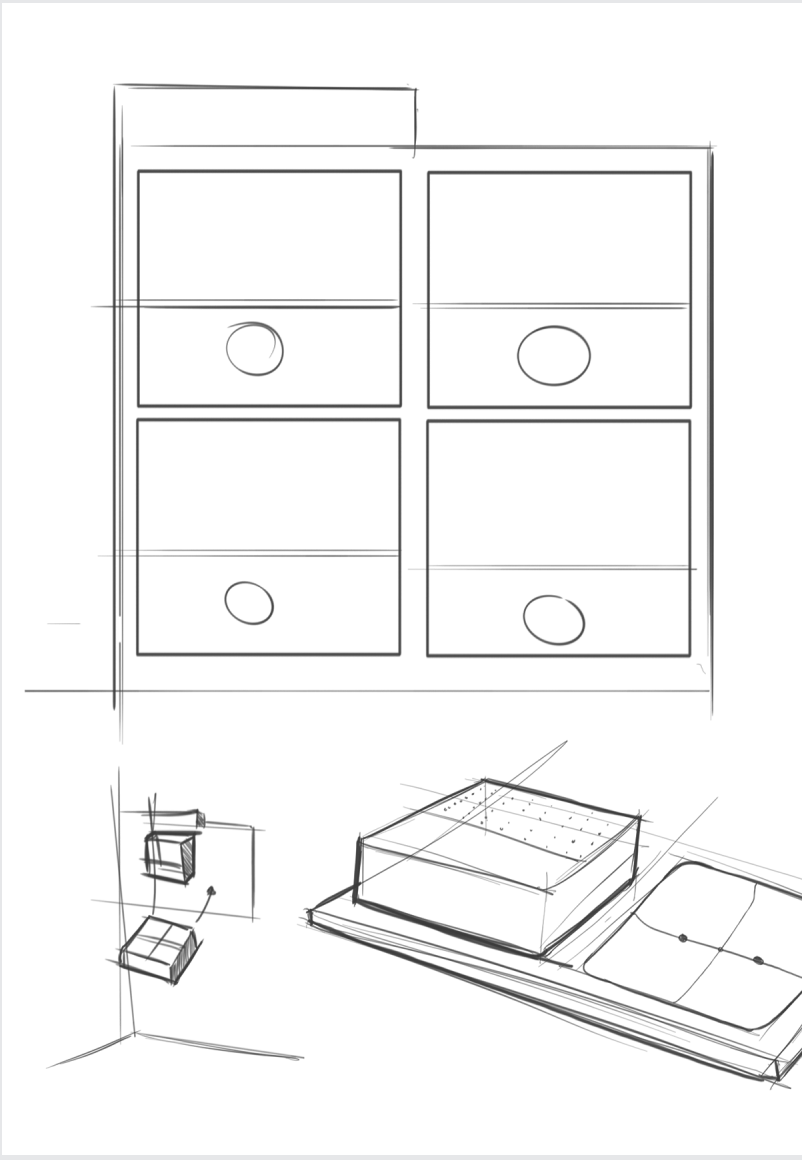


The devices are attached magnetically
and can easily be pulled apart.

WALLBOARD 1 is a concept where the individual units come together to make a sort of hanging wall art.

This concept was created from the ground up with consent in mind. The unit has a hub that allows a user to engage in an activity that lets them consent to being recorded each and every time they wish to use the device. The act of attaching it to a pre-placed base plate activates an RFID antennae and turns on the individual unit. When the unit is taken off the base plate it powers off and can be returned to the hub to charge.

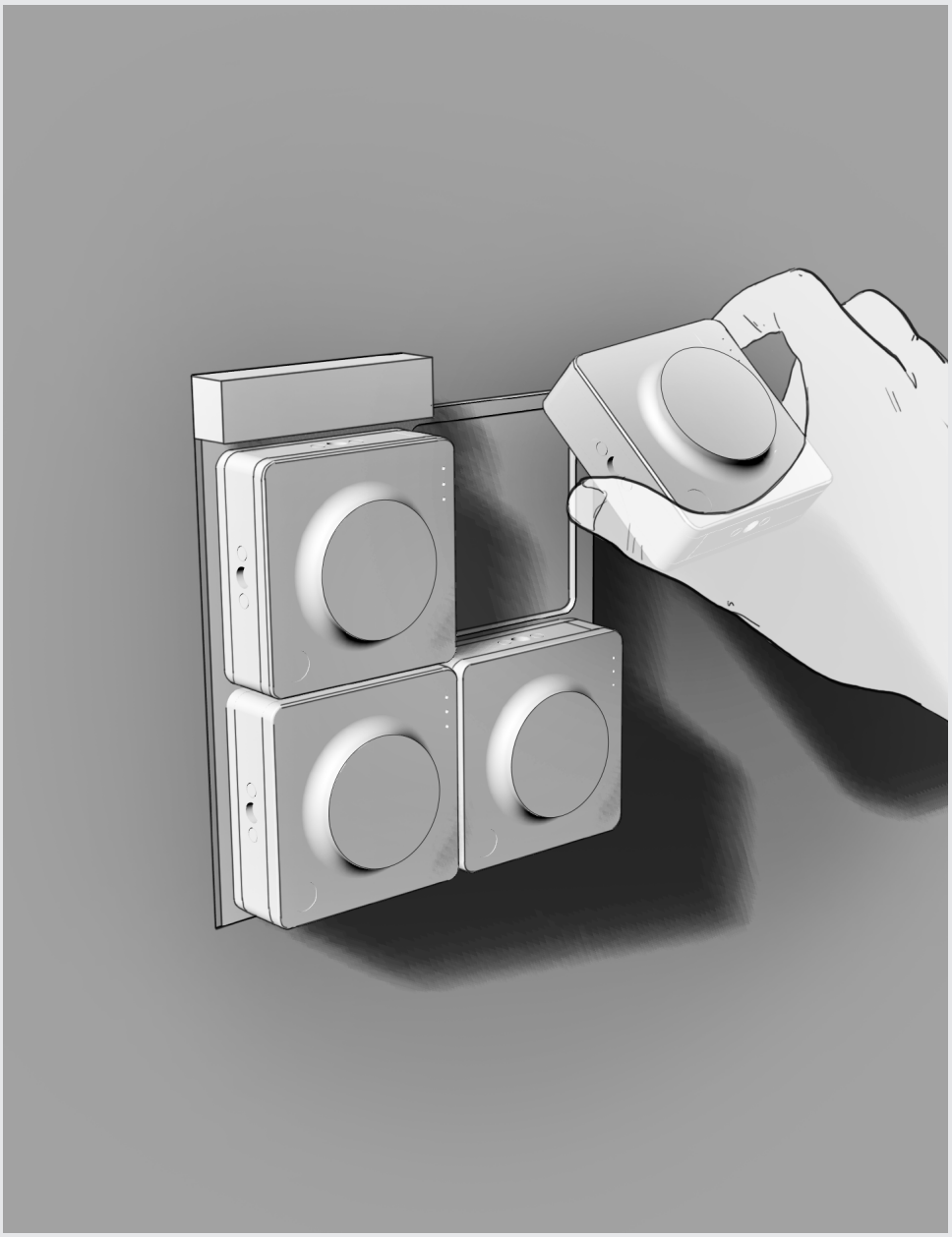
WALLBOARD 1 was selected as the final concept direction for the sensor part of our system. We picked this concept because it highlights a simple design, encourages an interesting user interaction paradigm, and seems like an idea that can be adapted to have a reasonable cost and manufacturing process.



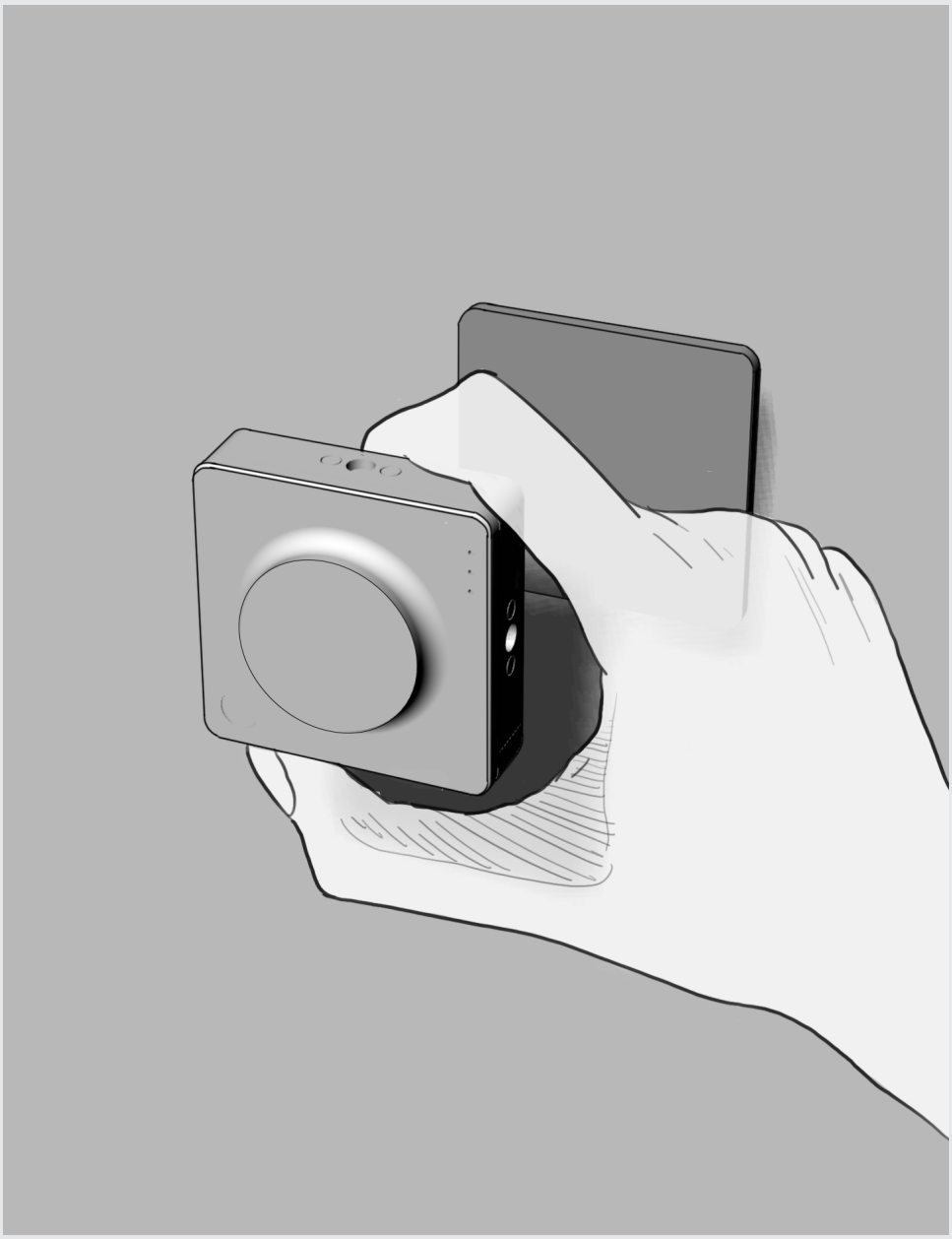
WALLBOARD 1 SKETCHBOOK IDEATION | 02.03.18

WALLBOARD 1.

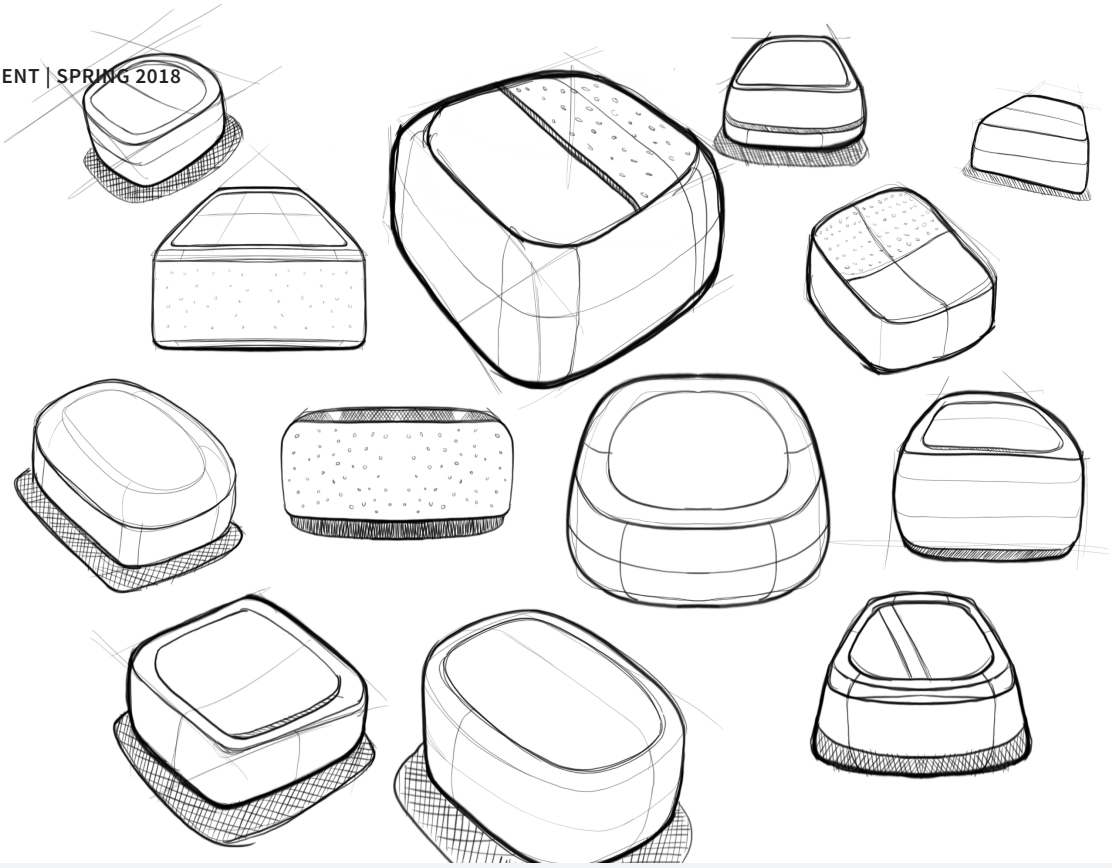
WALLBOARD 1 3D VISUALIZATION | 02.03.18



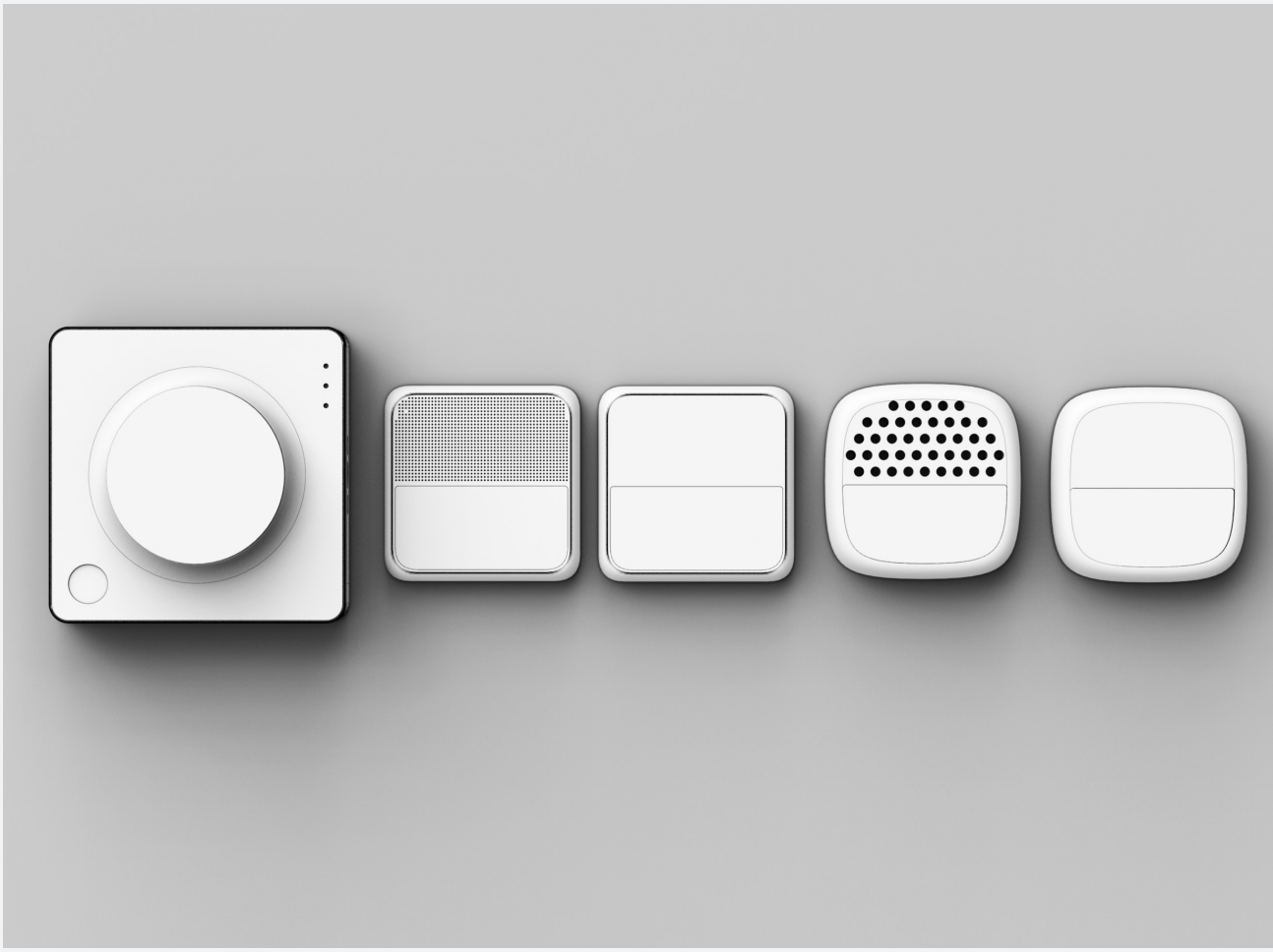
WALLBOARD 1 would incorporate a low profile charging pad based on QI charging technology.



The sensor would magnetically attached to preplaced adhesive mounted plates around your kitchen.



FORM EXPLORATIONS| 03.28.18

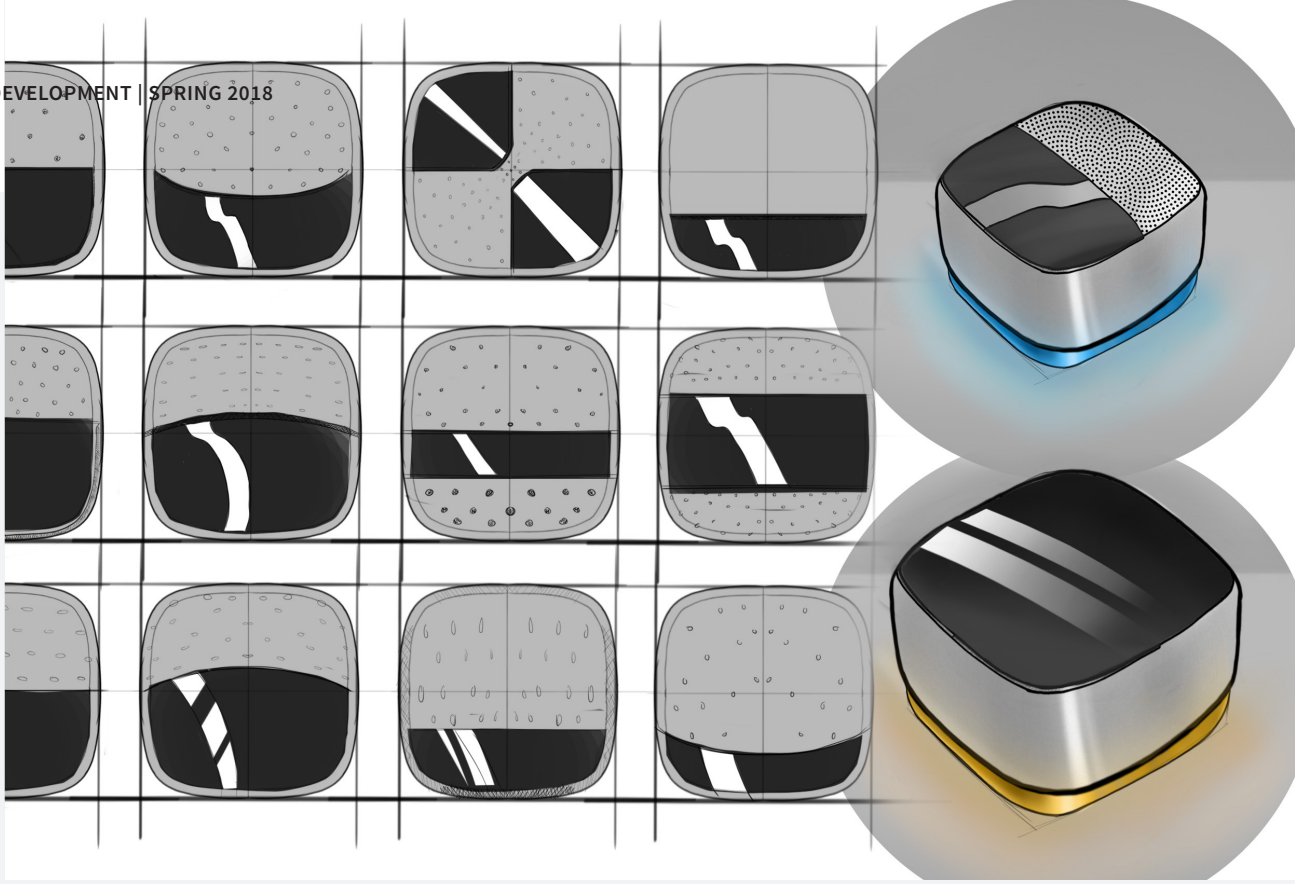


FORM RENDERS | 04.05.18

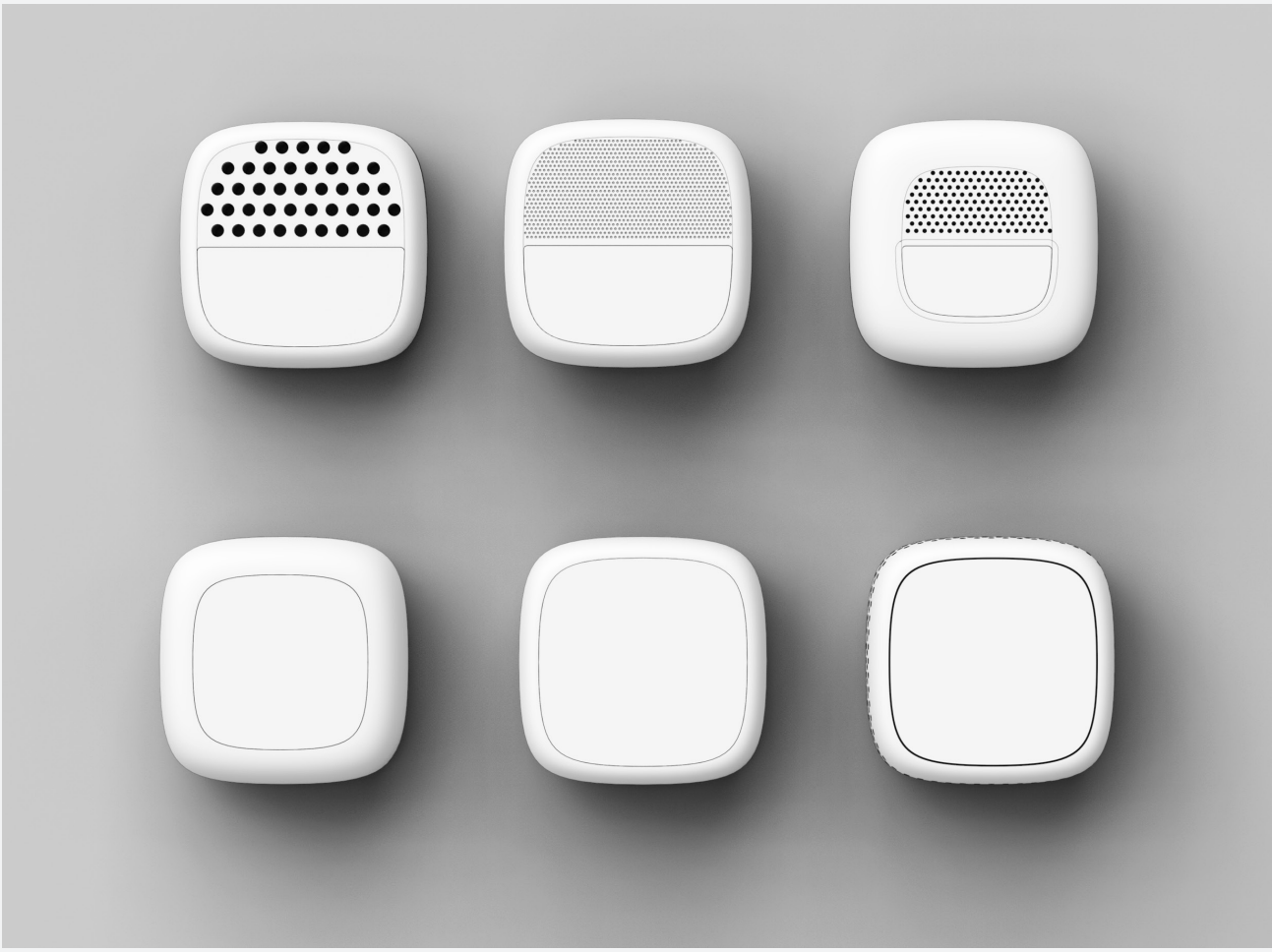
REFINED FORM - 3D PRINT | 04.02.18

ITERATION - FORM.

The idea for the form of our product came from nature. We wanted to explore the use of conic structures as they related to being held and touched. This led us to creating a design based around a skipping stone. This conic structure was duplicated across all forms during the hardware development stage.



DETAIL EXPLORATIONS| 03.28.18



DETAIL RENDERS | 04.05.18

FINAL DIRECTION - 3D PRINT | 04.02.18

ITERATION - DETAILS.

Once we selected a basic form it was time to figure out the little things. We originally had the speaker output coming out the top. This changed when we added light interactions to the device. We decided that the speaker holes looked better on the sides of the device and led to a much cleaner top surface.

SENSOR HUNG UP | 04.05.18

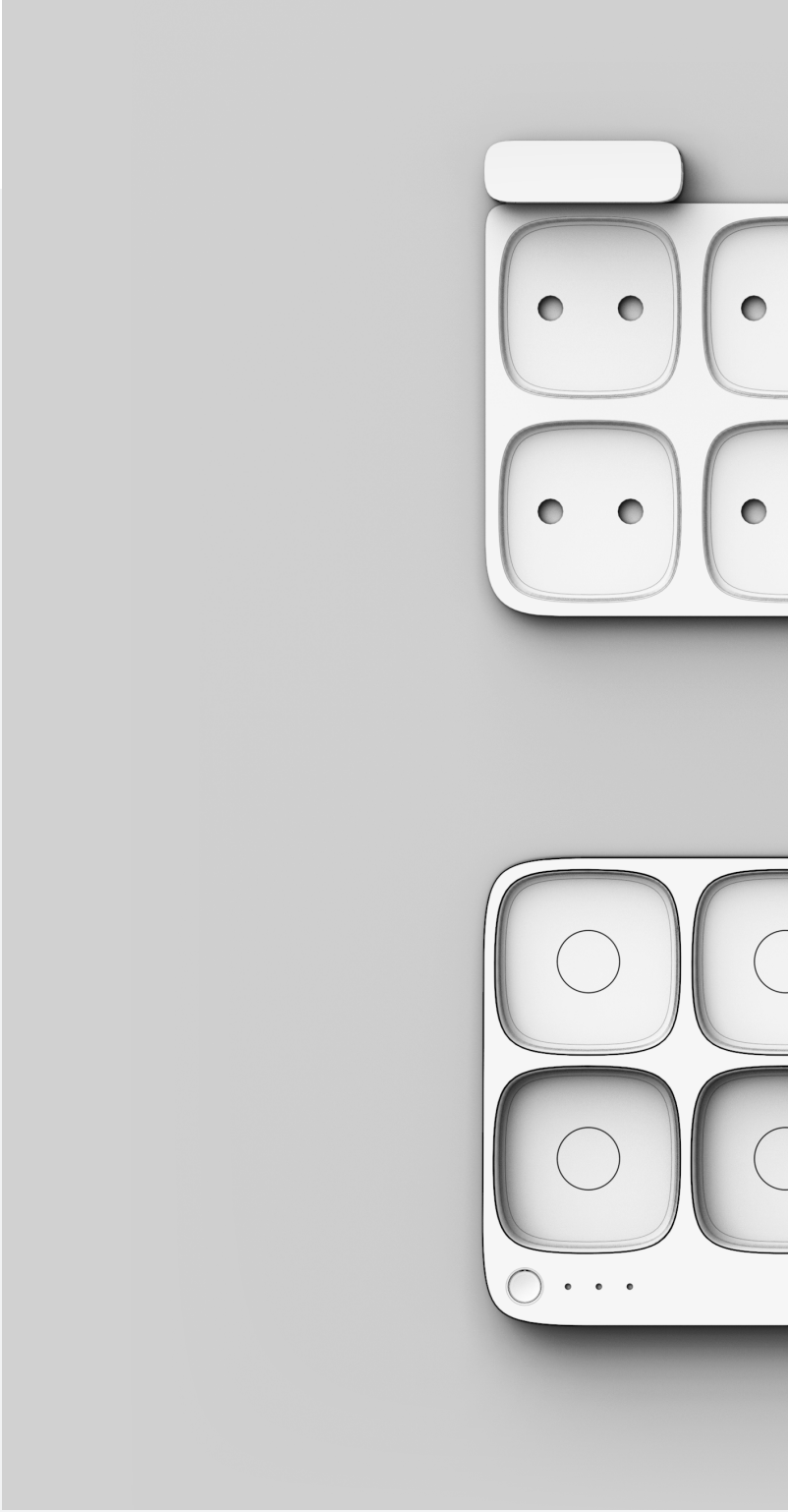
SENSOR FRONT VIEW | 04.05.18

FINAL SENSOR DESIGN.

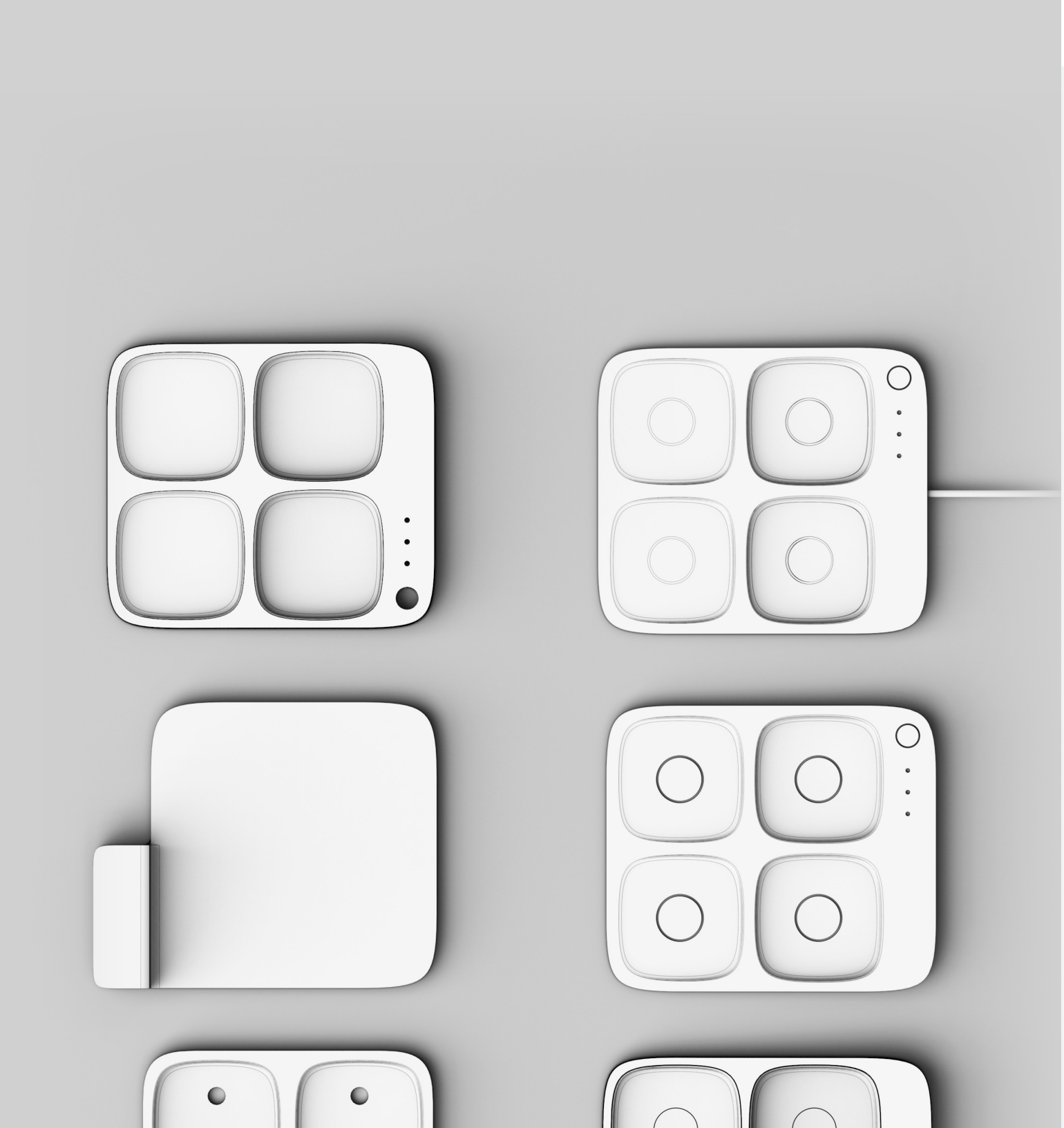
CHARGING DOCK.

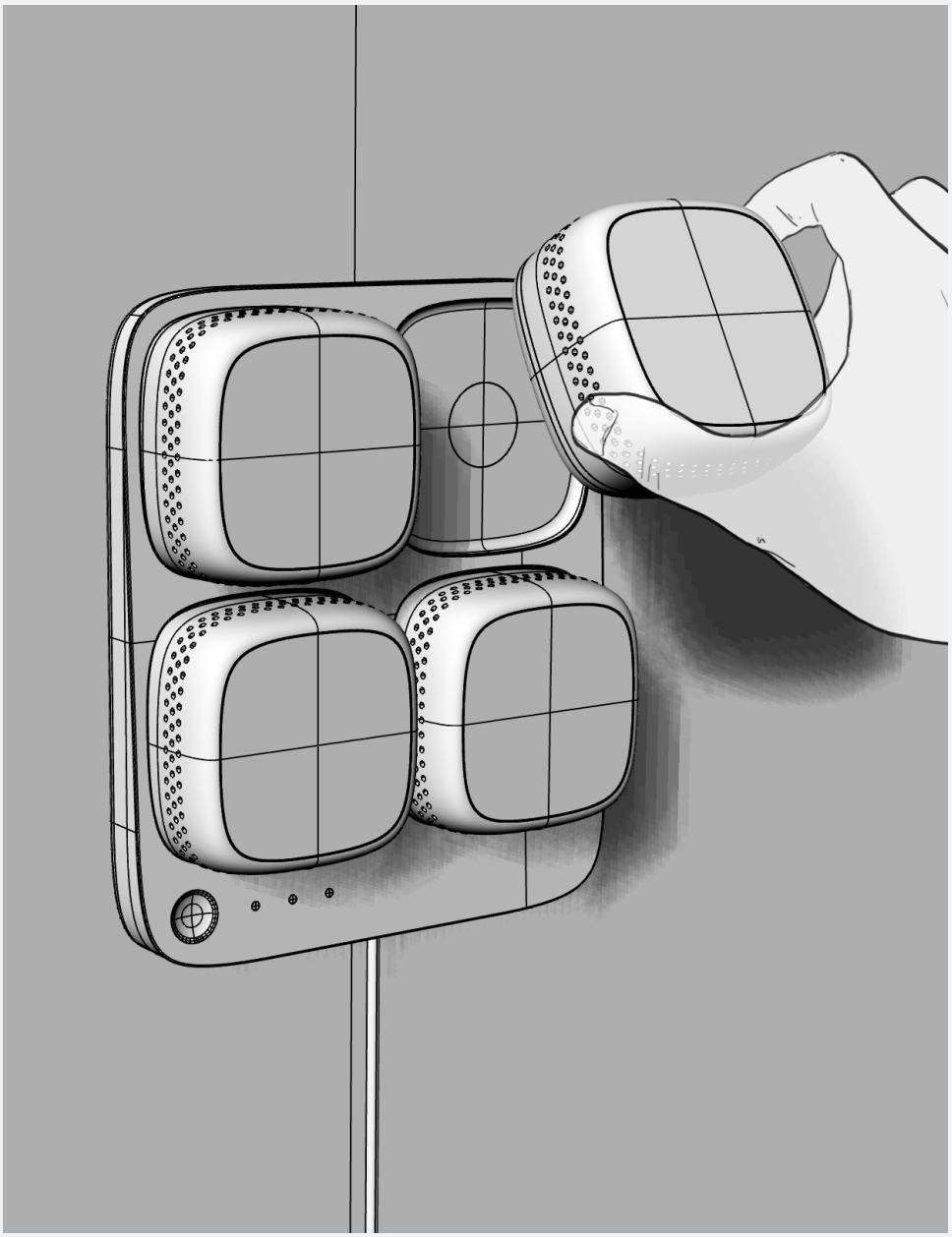
The Charging Hub was iterated from the chosen sensor concept. The focus of our iterations was to mirror the conic-structured design that we had proposed for the system.

We paid attention to how it would be placed in the kitchen. Details like the Action button and the cord placement were important to us and we wanted to make sure they made sense when translated from normal Echo device to a device meant to live on a wall or counter-top.

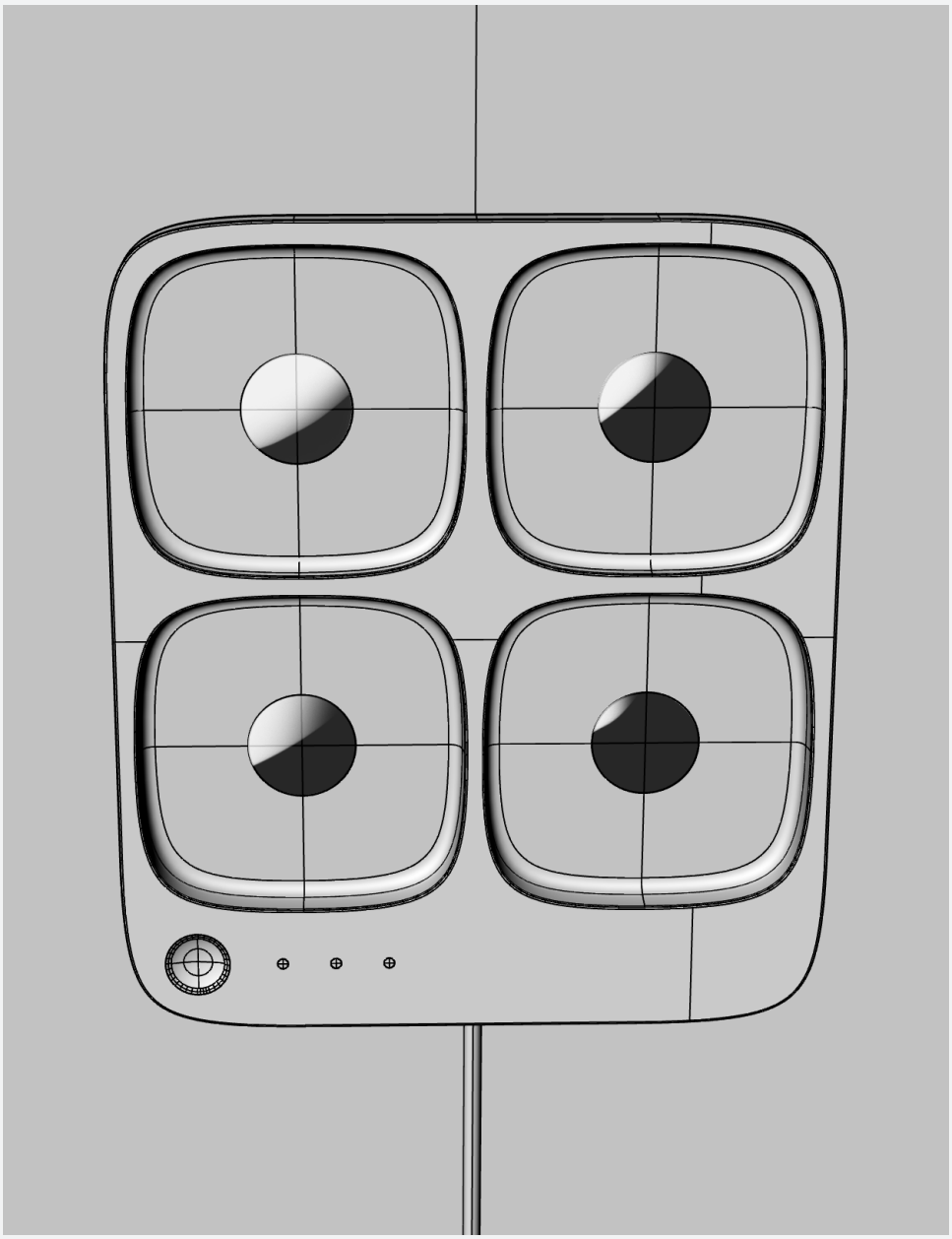


CHARGING DOCK ITERATION | 04.05.18





The CHARGING HUB was designed so users could easy take off and put away the included sensors.

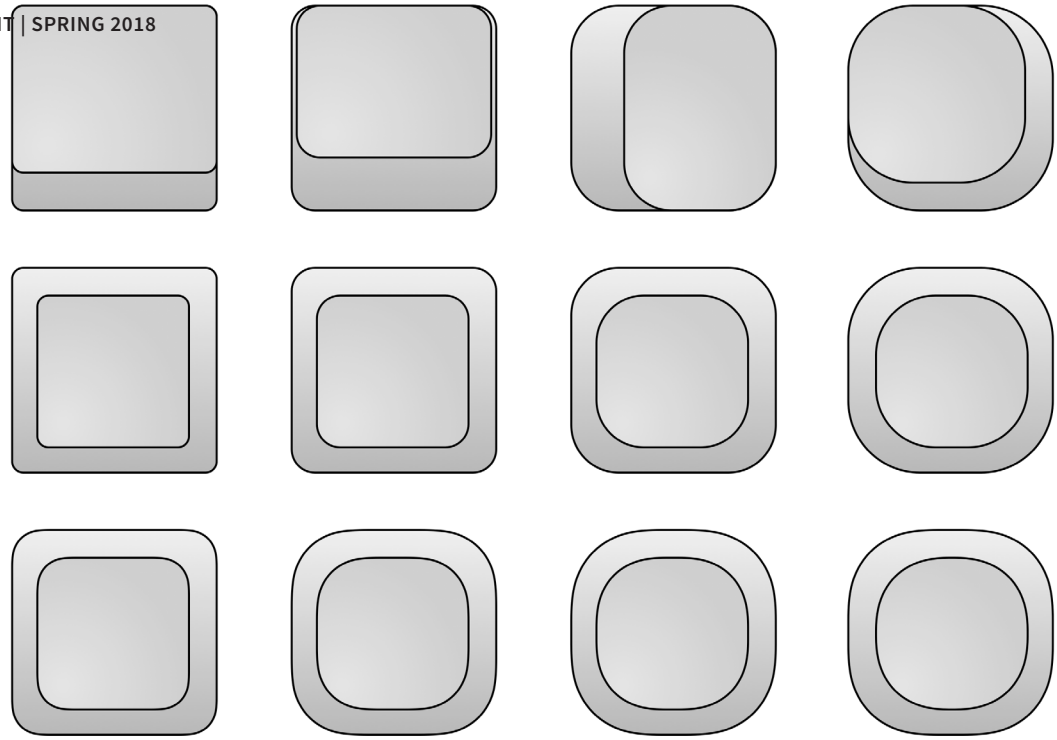


The CHARGING HUB features a composite base-plate beneath each sensor that contains a wireless charging plate as well as the magnets to hold them up.

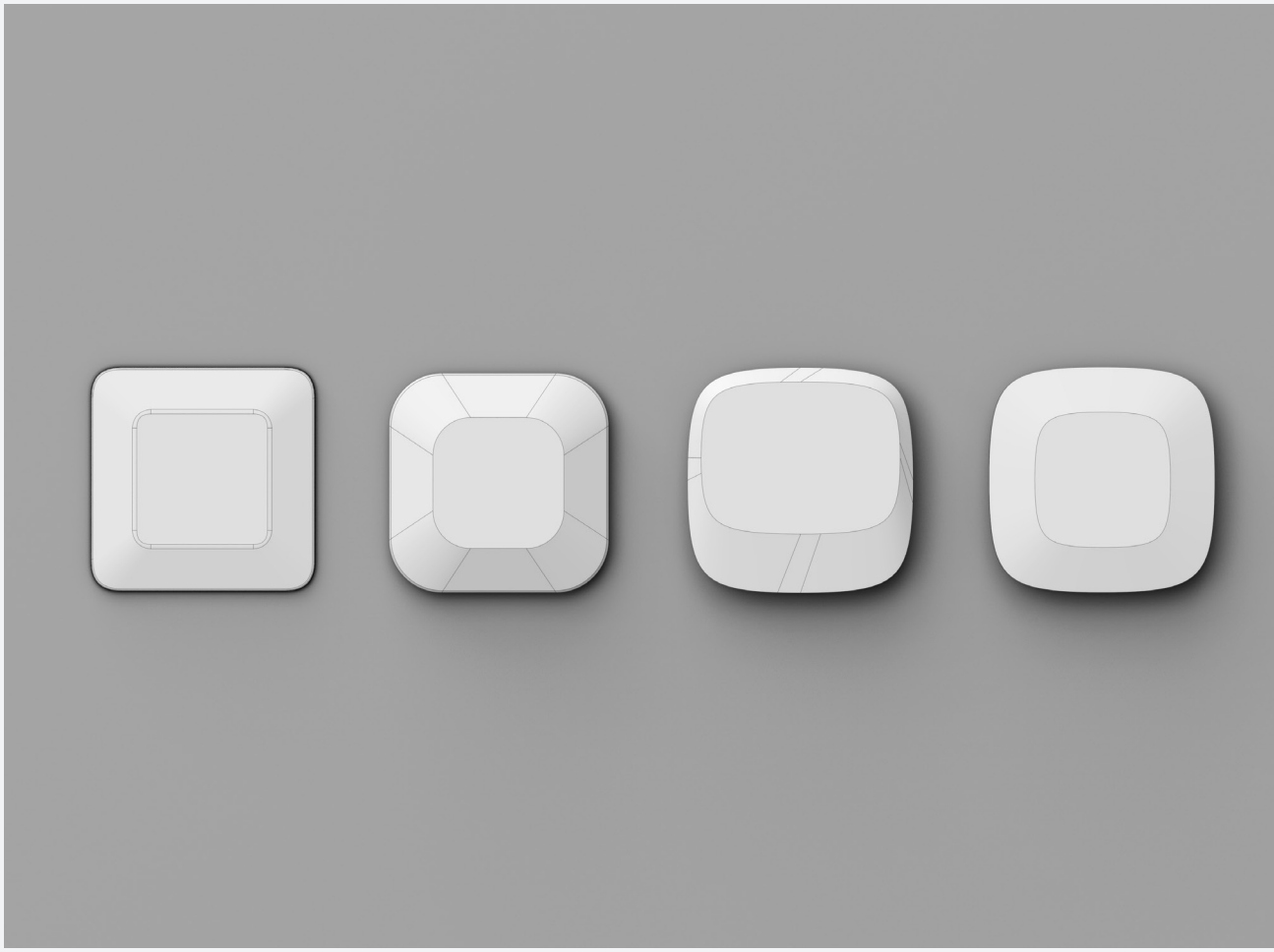
DOCK IN ACTION | 04.05.18

FRONT VIEW CHARGING PLATE | 00.00.00

FINAL WALL CHARGER.



QUICK SHAPE STUDIES | 03.28.18



SHAPE STUDY RENDERS | 04.05.18

FINAL BASEPLATE FORM | 04.02.18

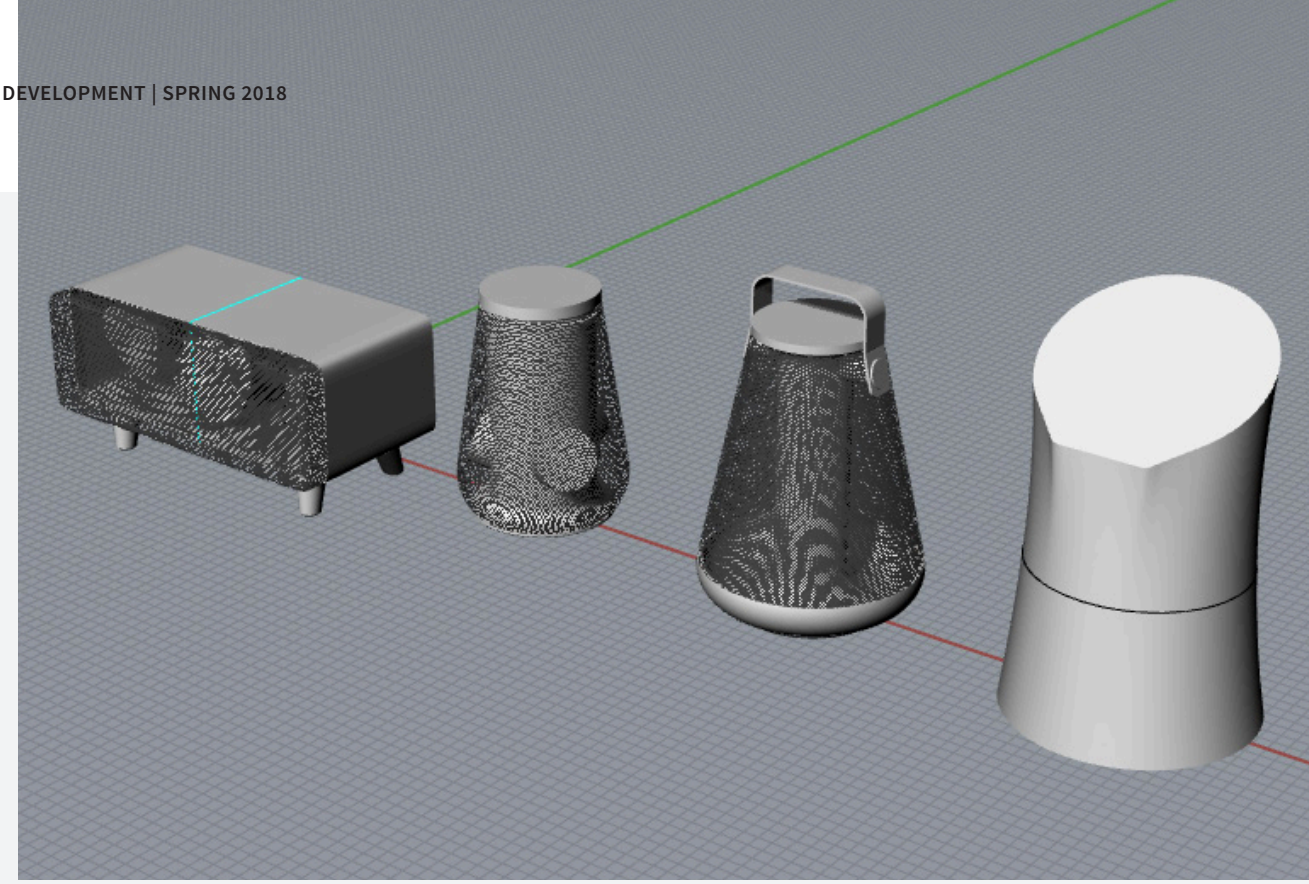
SENSOR BASEPLATE.

We wanted users to be easily able to attach a Gourmet sensor anywhere in their kitchen, so we developed a baseplate for them to attach to. This baseplate is made of two parts. A metal front that allows the sensor to magnetically attach and a plastic back that is coated in a paint-safe adhesive to allow it to stick to your wall, or hood, or fridge, or counter-top, or anywhere.

BASEPLATE SIDEVIEW | 04.05.18

BASEPLATE FRONT VIEW | 04.05.18

FINAL BASEPLATE.



CONCEPT SPRINT 1 | 01.28.18

CONCEPT SPRINT 2 | 02.20.18

ECHO FORM DIRECTION | 04.02.18

ECHO CONCEPTS.

The Echo base unit was something that we argued over many times. We went back and forth between deciding it even needed to be a part of the system or not. The first round of concepts had us looking at shapes based off of various speaker concepts. None of these felt right and definitely didn't feel like it belonged on a counter in your kitchen. The device needed to be monolithic and easy to clean. We went back to the drawing board and instead tried a new approach. We tried integrating our conic shape approach and created a bunch of variations until we found a shape that we liked enough to test and detail.

We referred to our concept as a carafe. It helped us to describe our concept to others and have them evaluate the form.

The first one we 3D printed felt too large and so we checked to see if all of the Alexa internals could fit in a smaller shell. It turned out that they could and we created a few proportion variations and 3D printed them so we could put them around our kitchens and observe them.

The next step was detailing the model. We thought of how the holes could align, how a user would interact with the top surface, where the cord would be attached, and how the unit would light up.

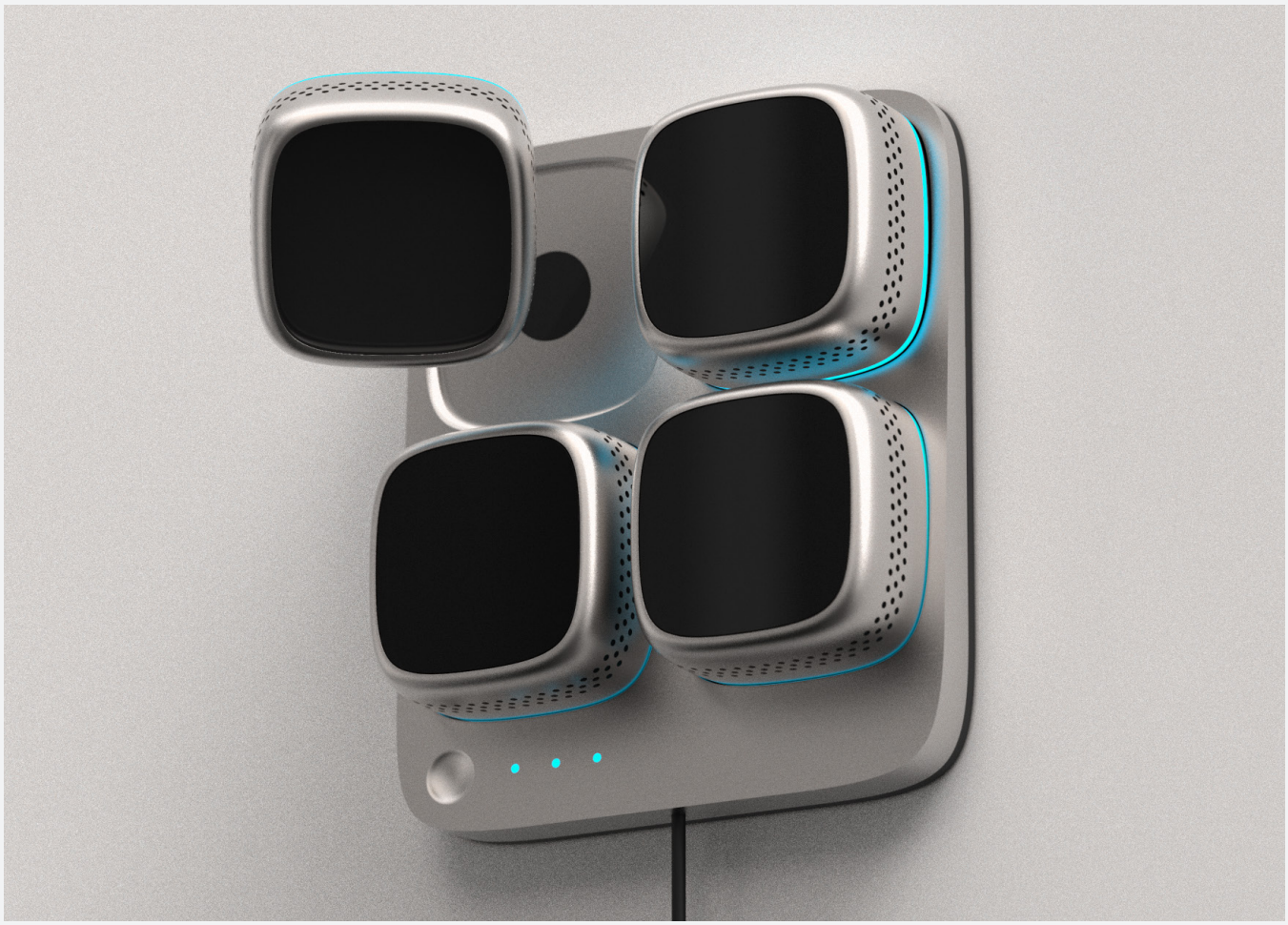
DETAIL AND PROPORTION STUDIES | 03.28.18

CARAFE REFINEMENT.

FINAL 3D PRINTED FORM | 03.28.18

KITCHEN ECHO | 04.05.18

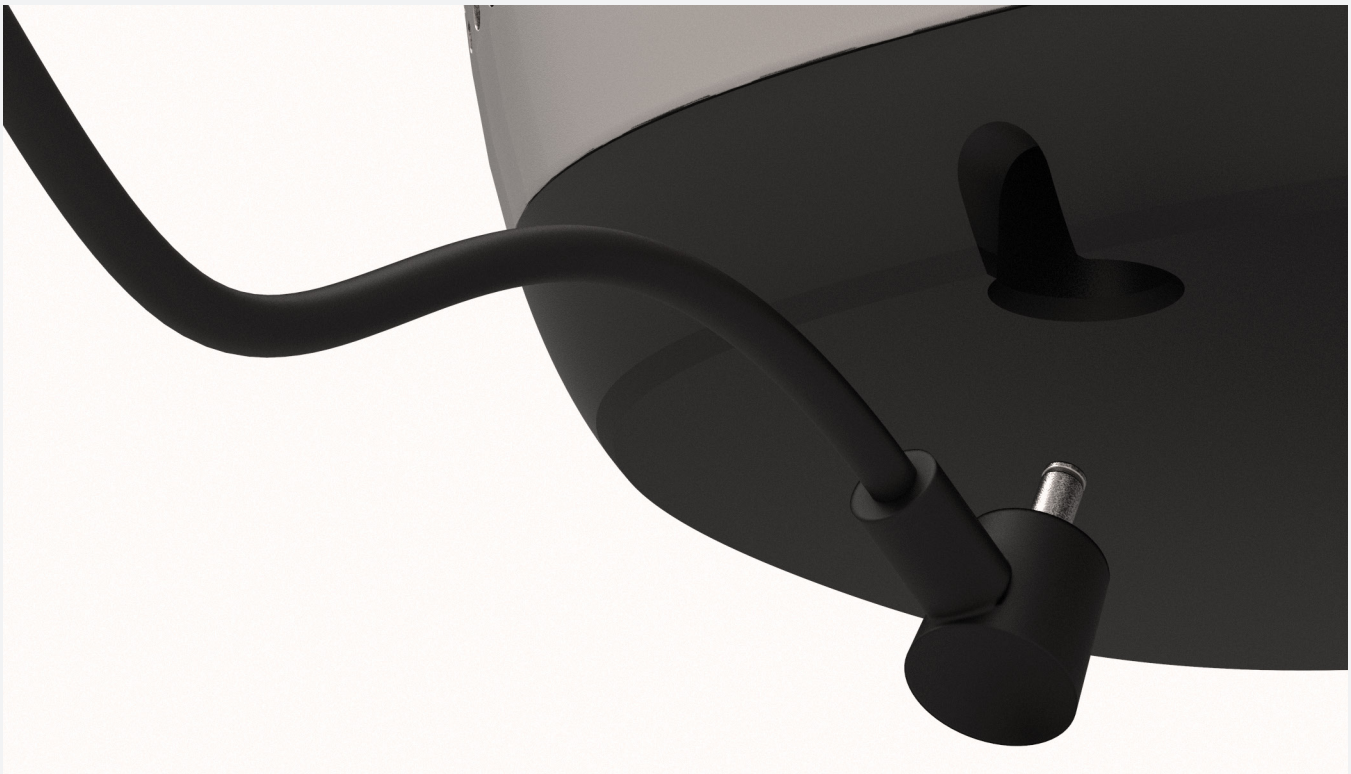
KITCHEN ECHO FINAL.



DOCK AND LIGHTS | 04.05.18

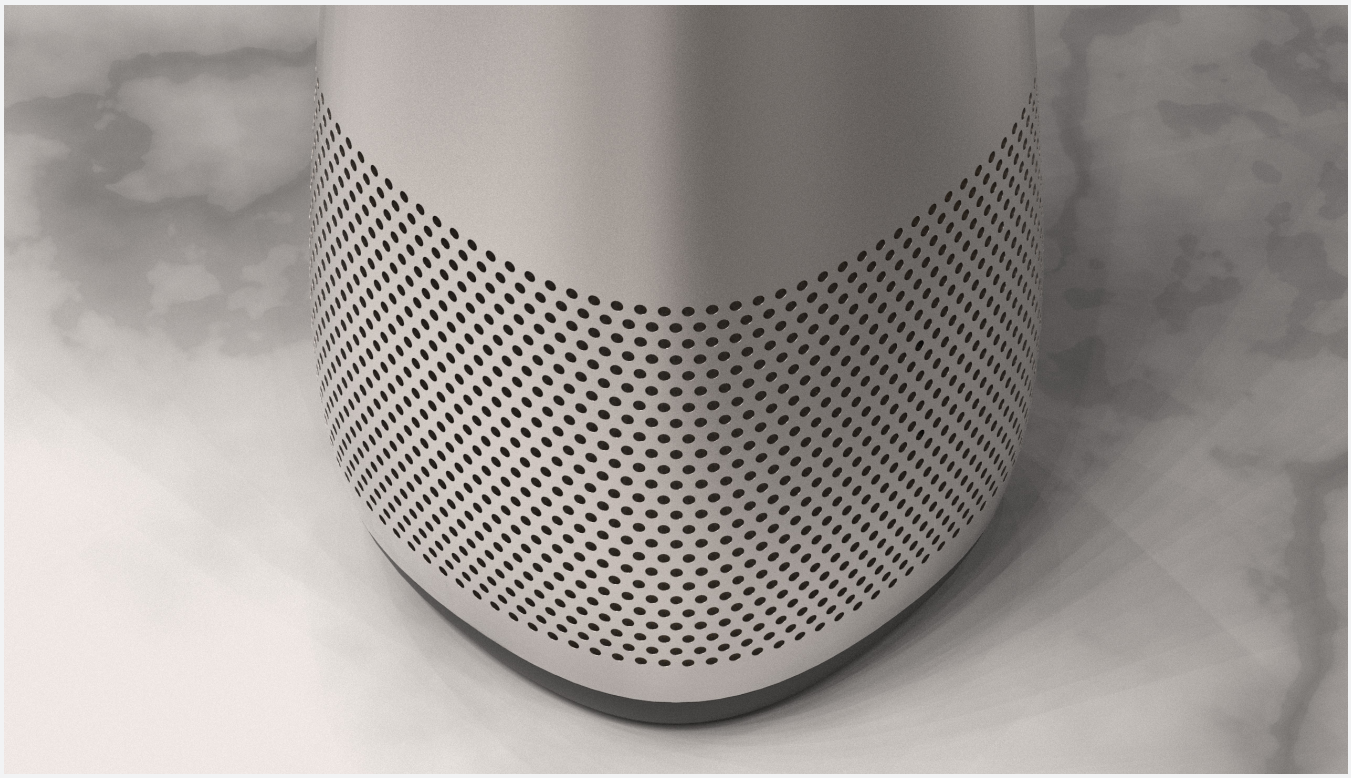
SENSOR & BASEPLATE PROFILE | 04.05.18

POWER CORD | 04.05.18



CORD SLOT | 04.05.18

INTERACTION SURFACE | 04.05.18



SPEAKER HOLES | 04.05.18

SYSTEM IN USE | 04.05.18

SYSTEM STOWED | 04.05.18

INTERACTION DESIGN.

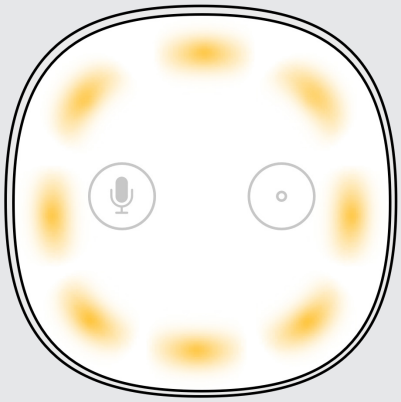
The first set of concepts use the idea of a central hub (an Alexa device) and a series of sensors that can be placed around the kitchen. This system draws its strength from being able to be installed in almost any kitchen.

These concepts was to test how they could attach to the wall and be manipulated to make sure the cameras and other sensory equipment is facing the right way. The focus was on maneuverability and simplicity. They needed to be made of minimal moving parts as they have to be somewhat cheap to produce.

A few things we still need to think are how the magnetic plates attach to the wall. Currently they use a simple adhesive, but they would have to include a permanent structure that sits around your kitchen.

START SESSION
Gourmet Gold going around the surface in a trail.

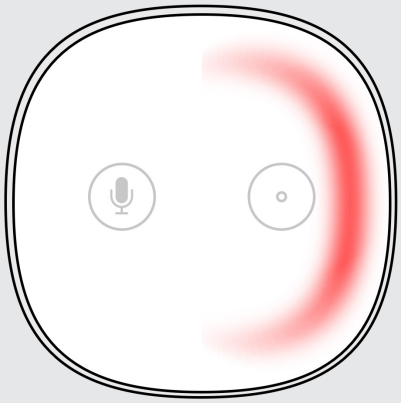
OBSERVING
Orange breathing to show user that Echo is observing.



POTENTIAL CORRECTION
Blinking orange to show that it has a potential correction.

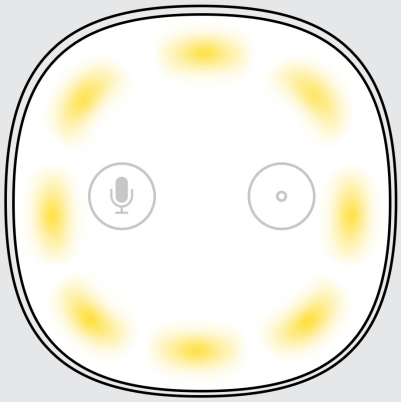
DANGER
A fast red pulse and sound to let a user know that they are doing something dangerous.

SPEAK & WAIT
Pulses with Alexa as she speaks and turns white when ready for user input.



EMERGENCY
Blinks red and white and asks a user if emergency services are required.

WAITING
Points toward user when waiting for next step confirmation.



NOTIFICATION
Random Gourmet Gold lights and sound to let a user know they have a notification.

IMPROVISE
A following rainbow that lets a user know that a step can be changed, if desired.

INTERACTION VISUALIZATION | 04.05.18

INTERACTION IN ACTION.

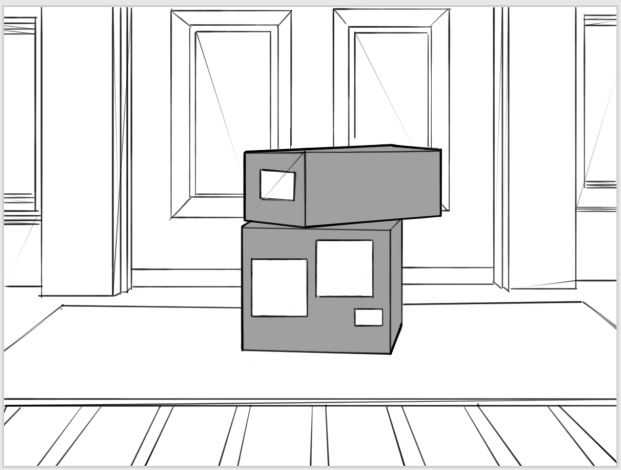
To test our interactions we used an Arduino and 9v battery inside of a 3D printed version of our model.

During our final presentation we hope to use a computer to push light profiles live as they are used in context of our cooking demonstration.

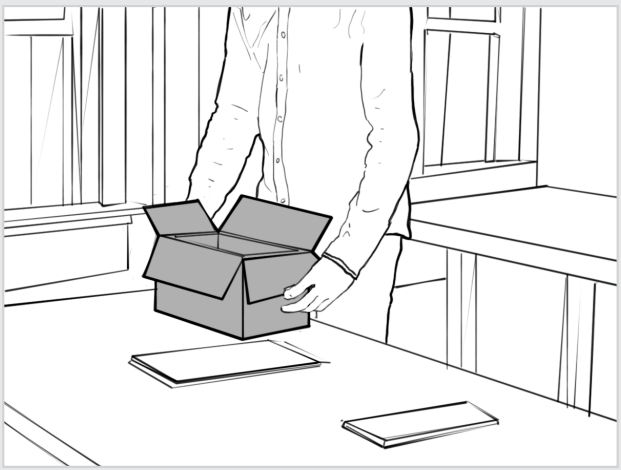
DEMONSTRATION OF USE STORYBOARDS | 03.26.18

Discovery
A user finds an ad touting the new Amazon Gourmet system.

Subscription
A user would have the option to subscribe to AmazonFresh and add the new gourmet system for an additional fee.

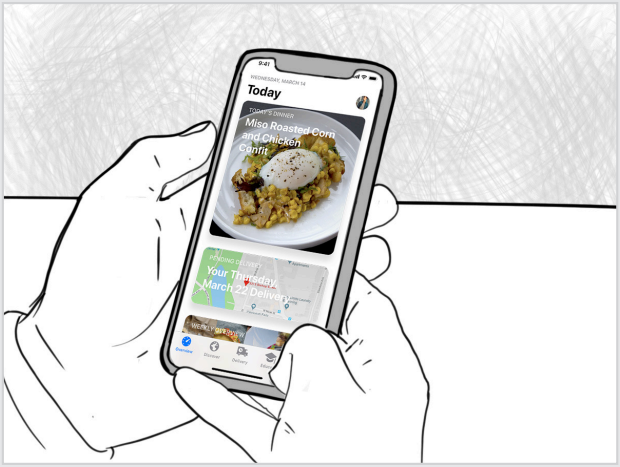


Delivery
The system would be delivered just like a normal Amazon package at no extra cost.



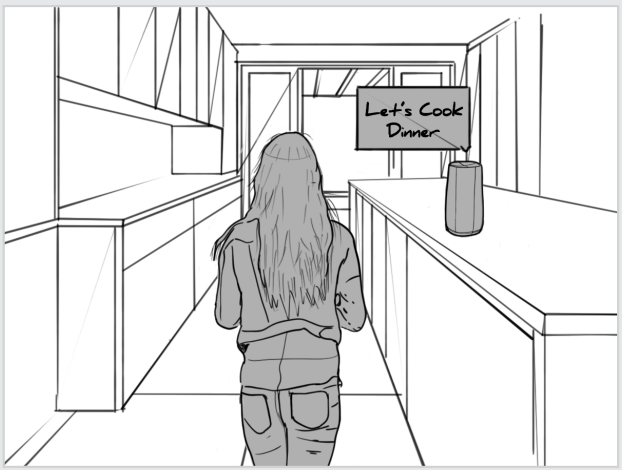
Unboxing
The packaging is a plain box to cut down on waste.

Setup
The user is guided through setup of the base unit and is prompted to test each sensors.



First Meal Plan
After setting up the phsyical parts the user can set up the app and creating their first weekly meal plan.

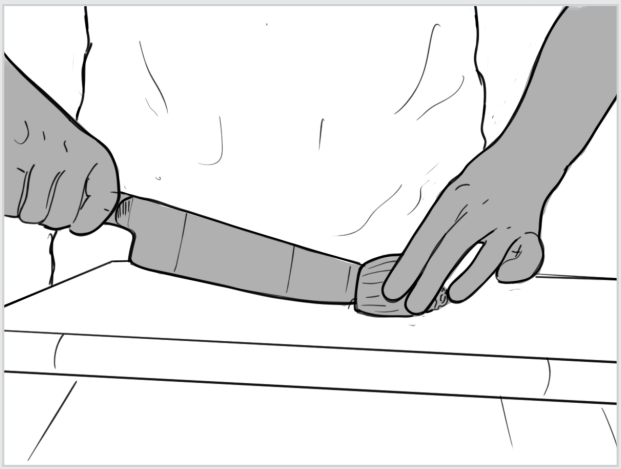
Grocery Delivery
Amazon would delivery groceries like normal via their AmazonFresh service. Users could have it left at the door or be home to get it.



Meal Reminder
Near meal-times Alexa reminds a user that they have the ingredients to cook dinner instead of eating out.

DEMONSTRATION OF USE STORYBOARDS | 03.26.18

System Startup
To start a cooking session a user can ask Alexa or simply place a sensor. This is to make sure consent is always given.

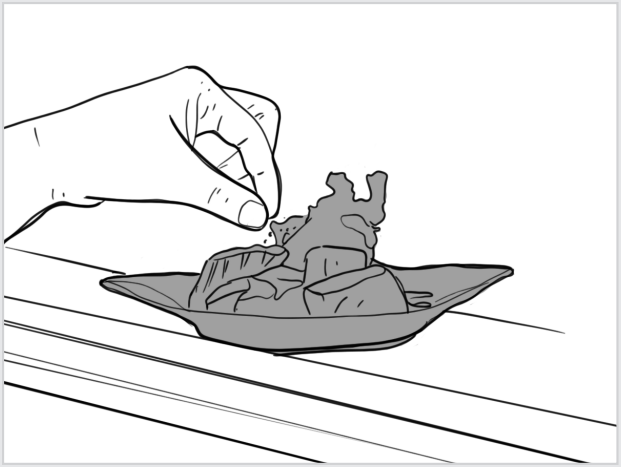


Cooking
During cooking Alexa is always there with preparation techniques, directions, and little tidbits of info.

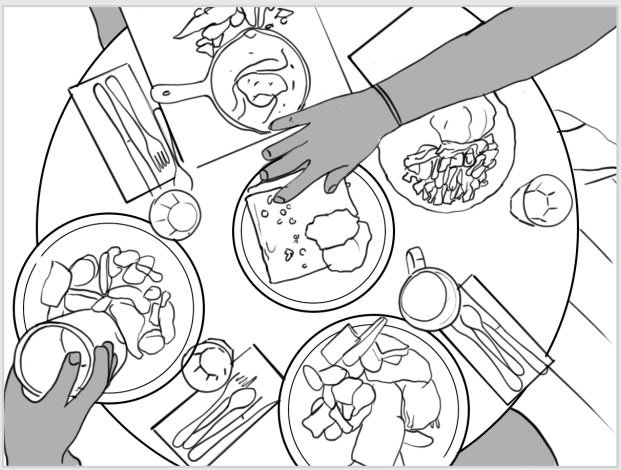
Adaptive Questioning
Alexa is always ready for questions and if the answer is better seen than heard she'll send a video notification to a users phone.

Video Notification
What a notification looks like.

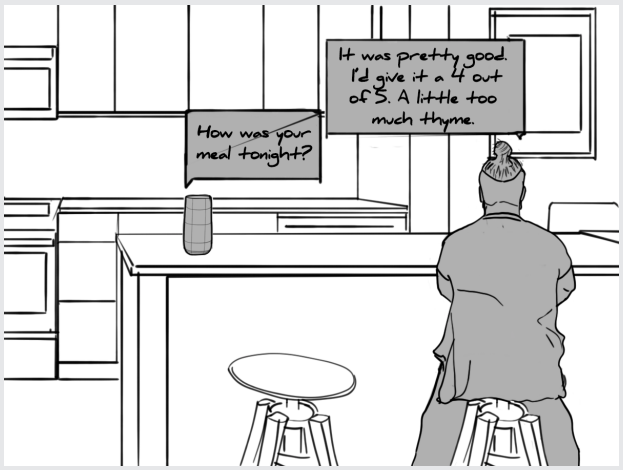
Improvisation
Alexa has the ability to change meal plans with what a user has on hand. Just ask.



Plating and Finishing
The Gourmet companion app has pictures of what a dish should look like so you can perfectly plate it every time.



Improvisation
Alexa has the ability to change meal plans with what a user has on hand. Just ask.

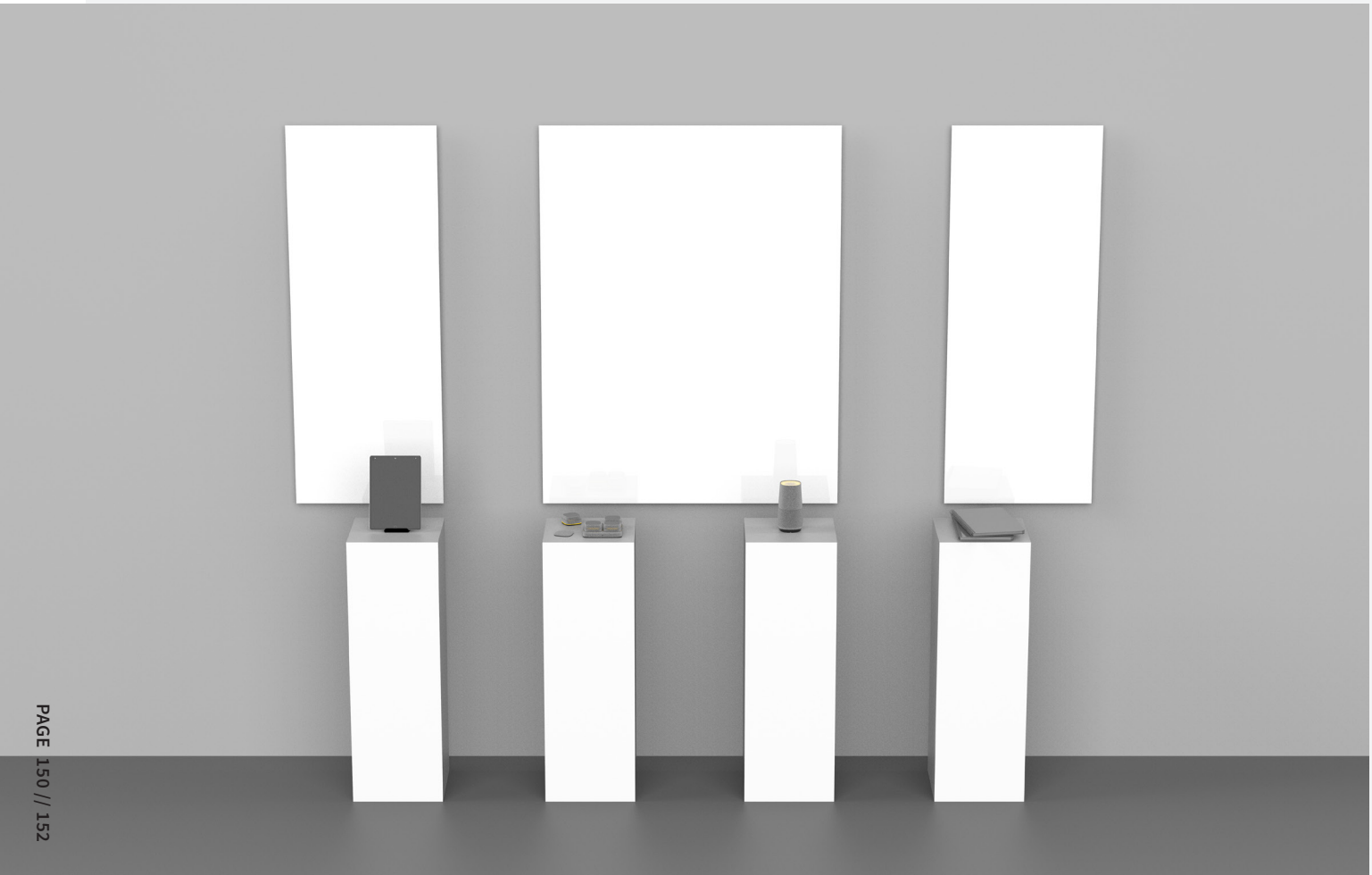


Review
Alexa asks what a user thought about the dish and records feedback for future users to access.

DISPLAYS | 03.28.18

CRITIQUE SETUP.

The presentation display includes the main aspects of the system; the echo kitchen, echo gourmet, an interactive app demonstration, and research and process books as well as boards that show the system diagrams.



CAPSTONE DISPLAY RENDER | 04.01.18

CRITIQUE SETUP RENDER | 04.01.18

PRESENTATION DEMONSTRATION.

For our presentation we set up a cooking demonstration using the Alexa to show many of the features and how it has the potential to teach a user how to cook.