

**JOE  
FRANKL**

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INDUSTRIAL DESIGN PORTFOLIO

## JOE FRANKL

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859.609.0890

### HOME ADDRESS

525 E 12th Street  
Cincinnati, OH 45202

### SCHOOL ADDRESS

5470 Aronoff  
University of Cincinnati  
PO Box 210016  
Cincinnati, OH 45221

## EDUCATION:



### UNIVERSITY OF CINCINNATI, DAAP

CINCINNATI, OH  
Design, Art, Architecture Planning  
BS in Industrial Design class of 2017



### COLUMBIA COLLEGE CHICAGO

CHICAGO, IL  
School of Fine and Performing Arts:  
2008-2009

## EXPERIENCE:



SONOS

### SONOS

INDUSTRIAL DESIGN INTERN  
SANTA BARBARA, CALIFORNIA

*May 2015 - August 2015*

Worked on the Industrial Design team in form exploration, CAD modeling, user experience story boarding, CMF exploration, physical prototyping, general studio support, and future product roadmap exploration. Also collaborated with UX team in the development of in-app user communication and exploration into a refined setup/unboxing experience.



SHURE

### SHURE INCORPORATED

INDUSTRIAL DESIGN INTERN  
CHICAGO, ILLINOIS

*January 2014 - May 2014*

*August 2014 - December 2014*

Collaborated with industrial design team on the creation and development of solutions to the product use case and with consideration for the production process and cost targets. Responsibilities included generating and communicating the visual and physical aspects of designs through sketches, illustrations, renderings, and 3D prototype models.



CAC

### CONTEMPORARY ARTS CENTER

PREPARATOR AND ART HANDLER  
CINCINNATI, OHIO

*January 2012 - May 2012*

Aided in the installation and de-installation of shows. Responsibilities included proper and secure packing of work, fabrication of on-site pieces, registrar duties including writing condition reports, maintaining facilities and hanging/installing new work.

## SKILLS:

### SOFTWARE:

- Proficient in Adobe Illustrator, InDesign, Photoshop, Alias, Solid Works, Rhino 3D Microsoft Word, Powerpoint, and Excel

### OTHER SKILLS:

- Sketching, Model making, digital rendering, proficient in German
- Professional musician: percussion, guitar and piano

## ACTIVITIES AND HONORS:

### ACCOLADES:

- Dean's list through school (3.8 GPA)
- The National Society of Collegiate Scholars Nomination
- Cincinnati Entertainment Award for best Rock and Indie bands

### INTERESTS:

Identity design, package design, environmental science, community based activities, music and vintage musical instruments, motorcycles, woodworking, furniture, photography, simple machines

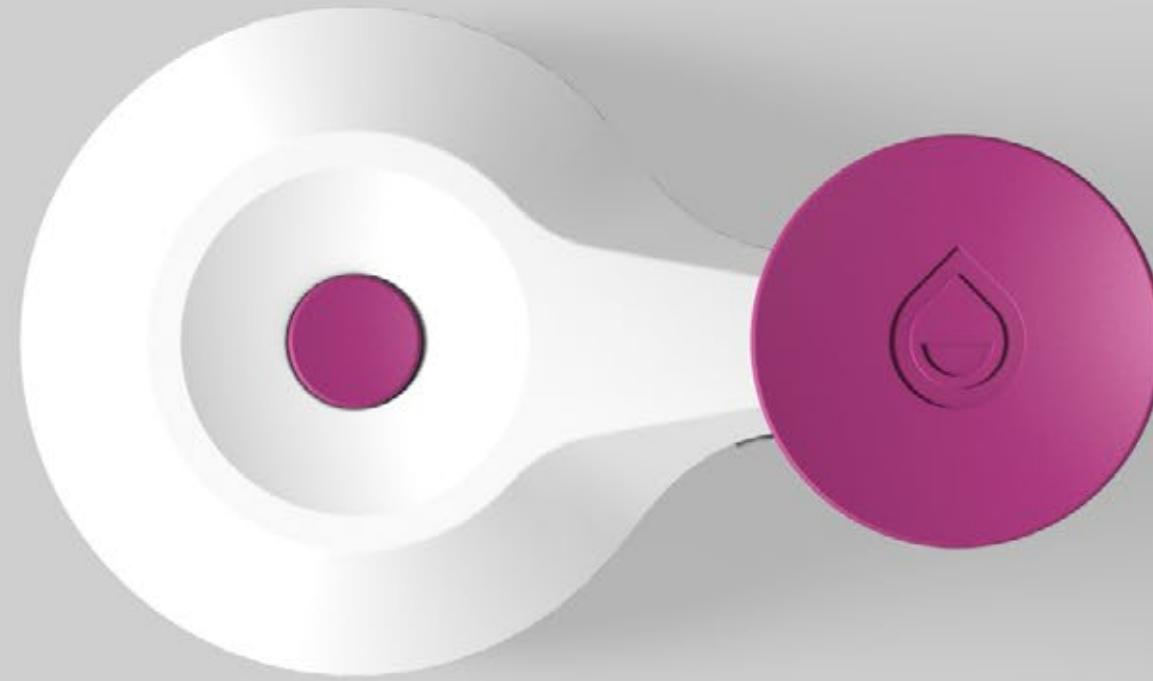
### REFERENCE

upon request

# Press Coffee Set

Full suite of coffee products

A ten week design studio for the design of a suite of related products



*“Sometimes in my rush to work, I’ve run to sidewinder instead of the BP just to get a nicer cup of coffee. Even when I know I’ll be late.”*

**How often, and at what time(s) during the day do you drink coffee?**



Generally people drink 1-3 cups of coffee a day. Though it changes mostly due to work schedules, 1 cup is almost always drunk in the morning. On weekends it is enjoyed leisurely.

**What methods do you use to brew your own?**



Almost everyone I talked to used french press because of its speed, taste, and strength. Coffee makers were only used if large quantities were needed.

**How much do you appreciate a good cup of coffee?**



On a scale of 1 - 10, people generally fell between 5 - 8, meaning that most people enjoy coffee more than just juicing it for energy. They come to more craft oriented shops because of the care that is put into the cup.

**Would you drive a little farther, or spend a little extra money on a finer cup of coffee?**



Everyone said definitely yes. Even during the rush to work, Some would drive a little extra just to get a better brew, even if it meant getting there late.



## primary research

I went to coffee shops around the city to ask real people how they appreciate, use, and enjoy their own coffee.



## Hand Powered

Connecting people with the coffee as much as possible will empower them to choose not to be without it.



## Quality Components

By limiting the amount of physical strain on the user, I can more effectively focus their thoughts off of themselves, and into the ritual itself.



## Intuitive

Whether it's in the rush of the morning or after a lazy brunch with some friends, the devices need to be easy enough to use that they don't distract from the purpose of the brew.

## design goals

My research has led me to understand certain aspects of my design that will be more important than others. These shall inform my designs.

# design inspiration

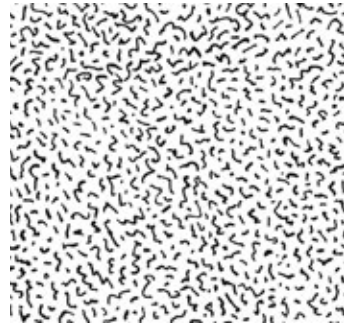
For this project I focused on three visual designers to influence the development of my family of products

## Ettore Sottsass

Affable futurist  
cubic weirdo

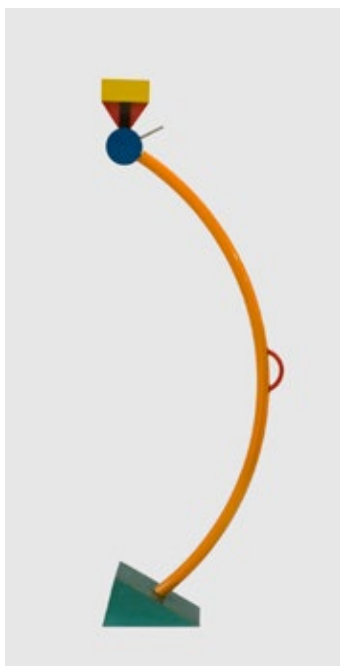


Ettore Sottsass (14 September 1917 – 31 December 2007) was an Italian architect and designer of the late 20th century. His body of designs included furniture, jewelry, glass, lighting and office machine design.

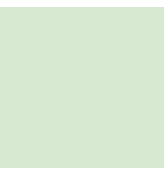
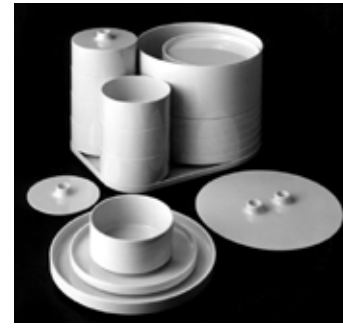


## Massimo Vignelli

Legendary  
identity strategist



Massimo Vignelli (born January 1931 in Milan, Italy) is a designer who has done work in the areas of package design, houseware design, furniture design, public signage, and showroom design through Vignelli Associates.

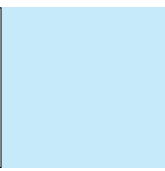


## Jonah Takagi

Contemporary  
take on modern  
principal



Born in Tokyo and raised in Connecticut, Jonah received a Bachelor of Fine Arts from the Rhode Island School of Design in 2002. Needing to develop and showcase a growing body of work, Jonah founded Atelier v in 2005.



# brand creation

For this project I focused on three visual designers to influence the development of my family of products



## Clean

It is at the utmost importance that the tools you use call less attention to themselves, so we as users can focus more on the task at hand. In this way, our everyday rituals can be more focused on the beauty of the natural world.



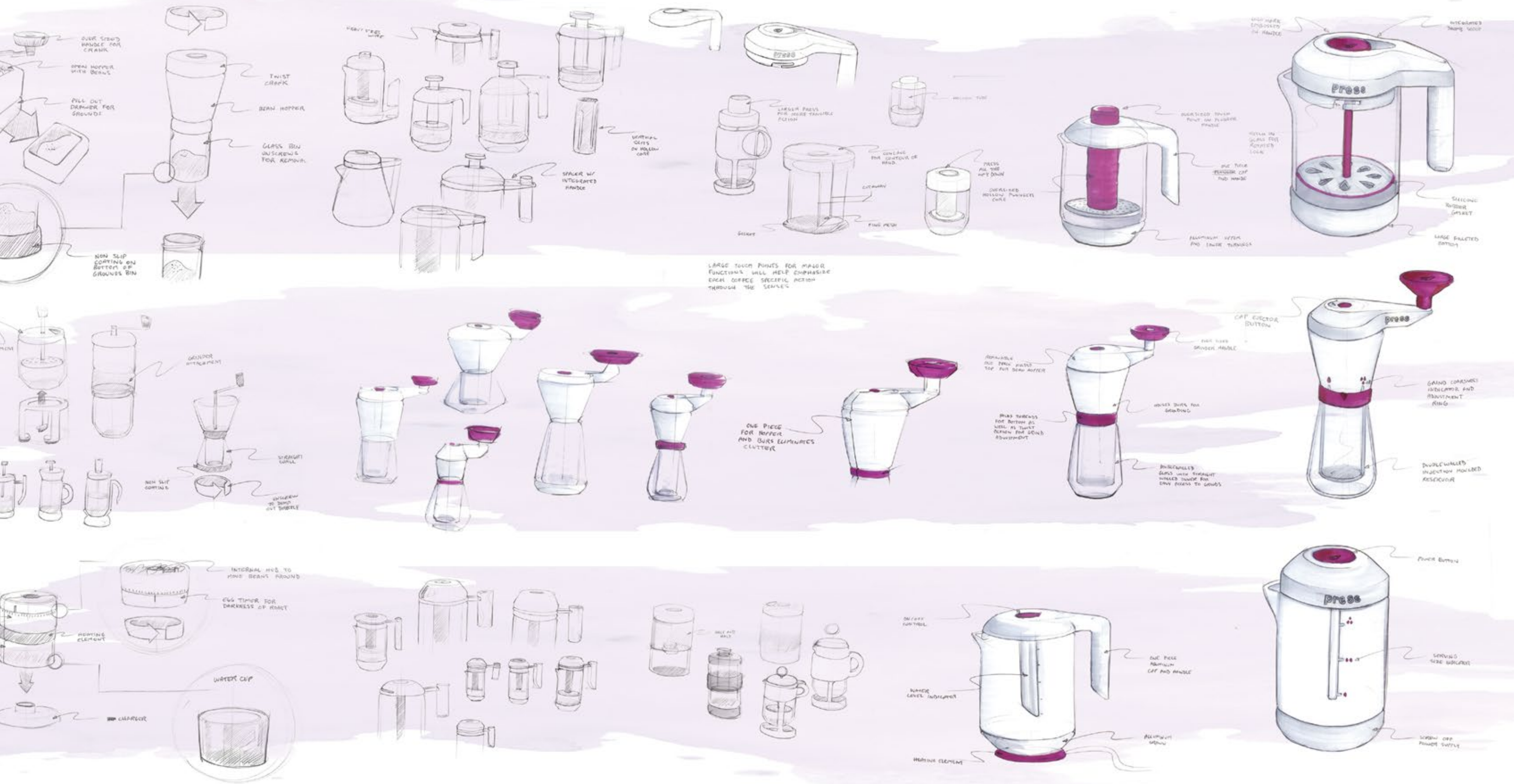
## Intuitive

High build quality, and a focus on functionality are a staple of press products. You get a better end result when work is done easily and efficiently.



## Friendly

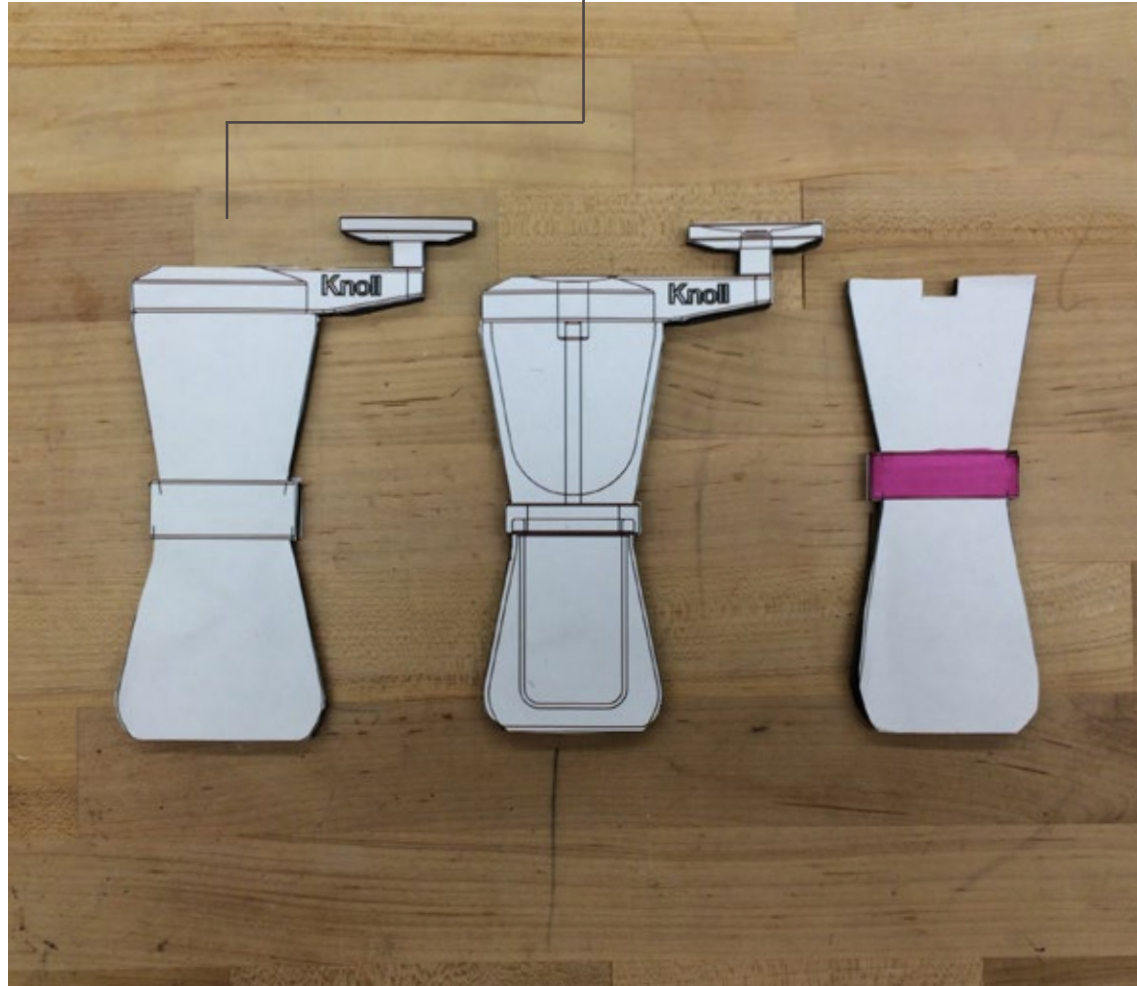
Press products must be approachable. Using tools, letting go, and engaging in our daily rituals should be fun and enjoyable. Press strives to make products that facilitate a positive environment when in and out of use.



# Developmental Sketching

Through a combination of sketching and iterative development I started to refine my ideas into a family of products with a shared design language.

1



### Sillouette and proportional studies

Foamboard mockups helped to guide both proportional aesthetic, and interior mechanical decisions.

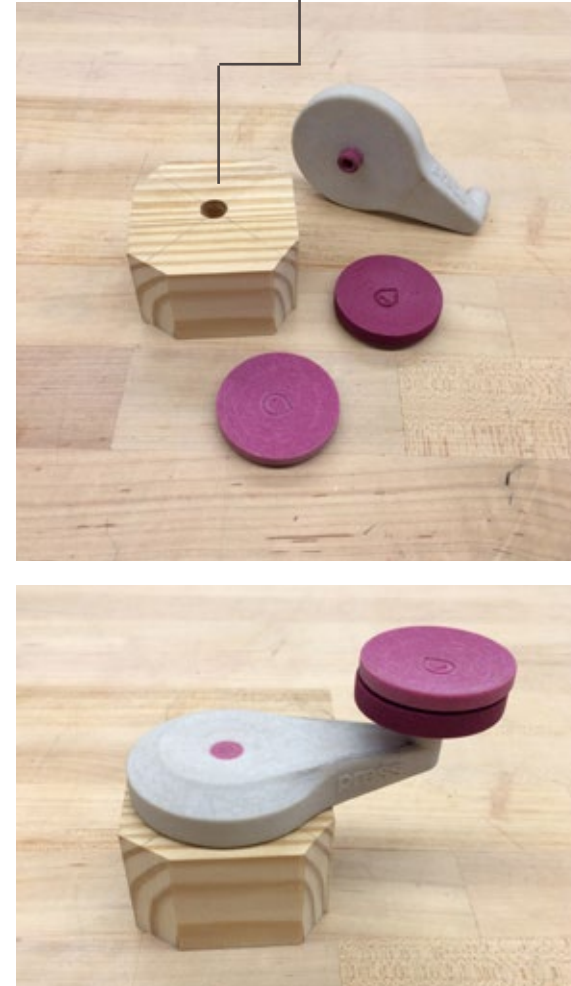
2



### Proportion to hand

Full scale 2d representations to begin to understand it's relationship to the hand.

3



### Touchpoint feedback

A jig was used to measure the clearance needed for the crank handle.

4

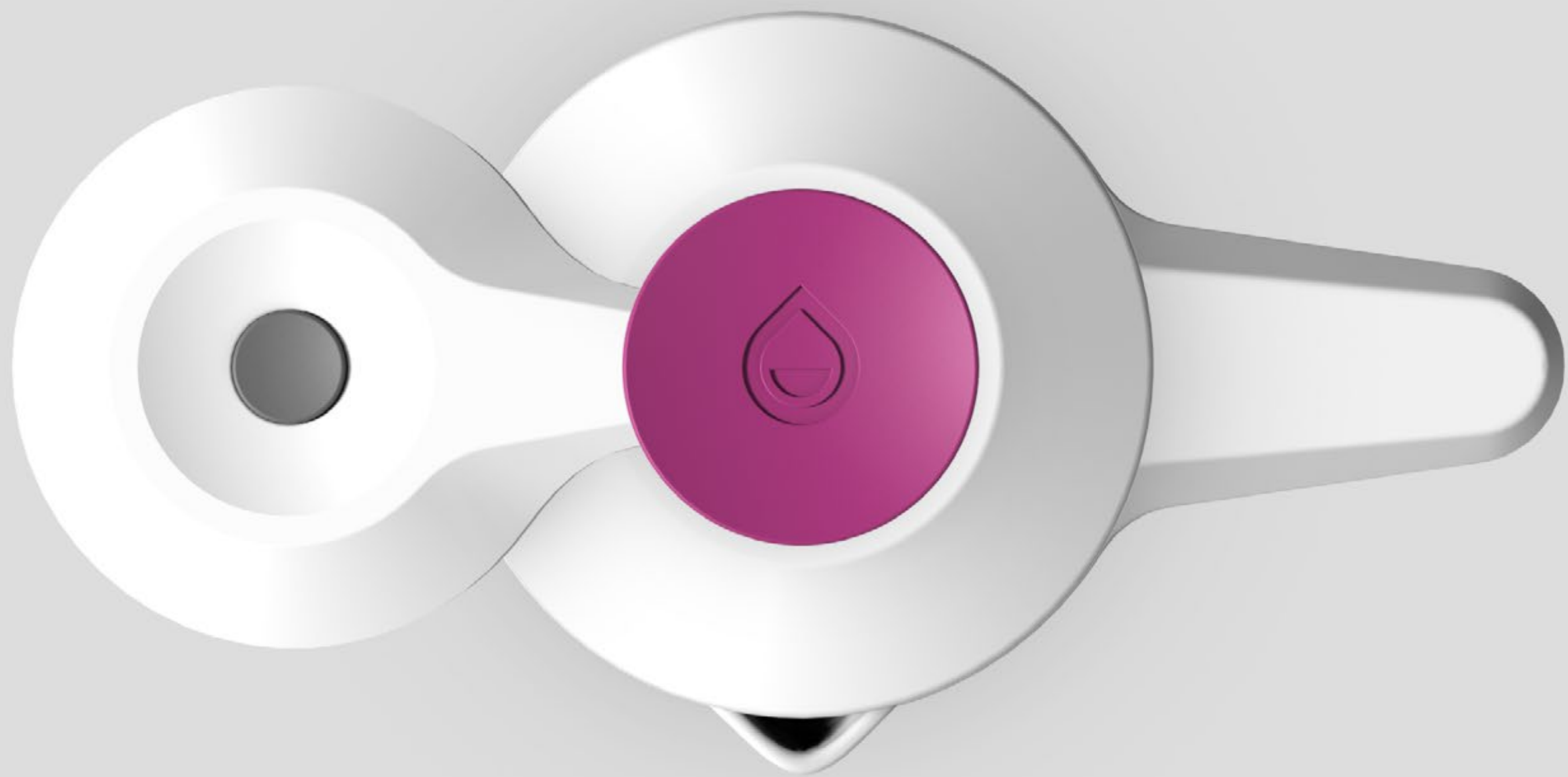


### Physical prototype

A final functional prototype was made accurate to weight, color, size, feel, and crank action.

# Prototyping and Feedback

Through a combination of sketching and iterative development I started to refine my ideas into a family of products with a shared design language.



Three steps,  
One button.

# Coffee Mill

With an enlarged crank and grind adjustment touch-point grinding is more intuitive, engaging, and physically easier. The use of color highlights the important functions. The reservoir has an etched serving indicator to make sure you've ground just enough for the perfect cup(s) of coffee.



The crank ejector depresses to lift off of the grinding post



Ceramic burrs are the finest quality, and allow for easy adjustment



# Electric Kettle

No need for a handle when the diameter is small enough to grasp on it's own. This gives a more tangible and controlled experience of using the contents. The window allows you to see the water level with an etched indication of one serving. It is charged with a mini usb so you can take it on the go.



Diodes on the steel inner layer and the bottom of the cap allow for the power to work only when cap is fully tightened



The base is recharged with a mini usb cable. The indicator light turns on when charging, and shuts off when finished

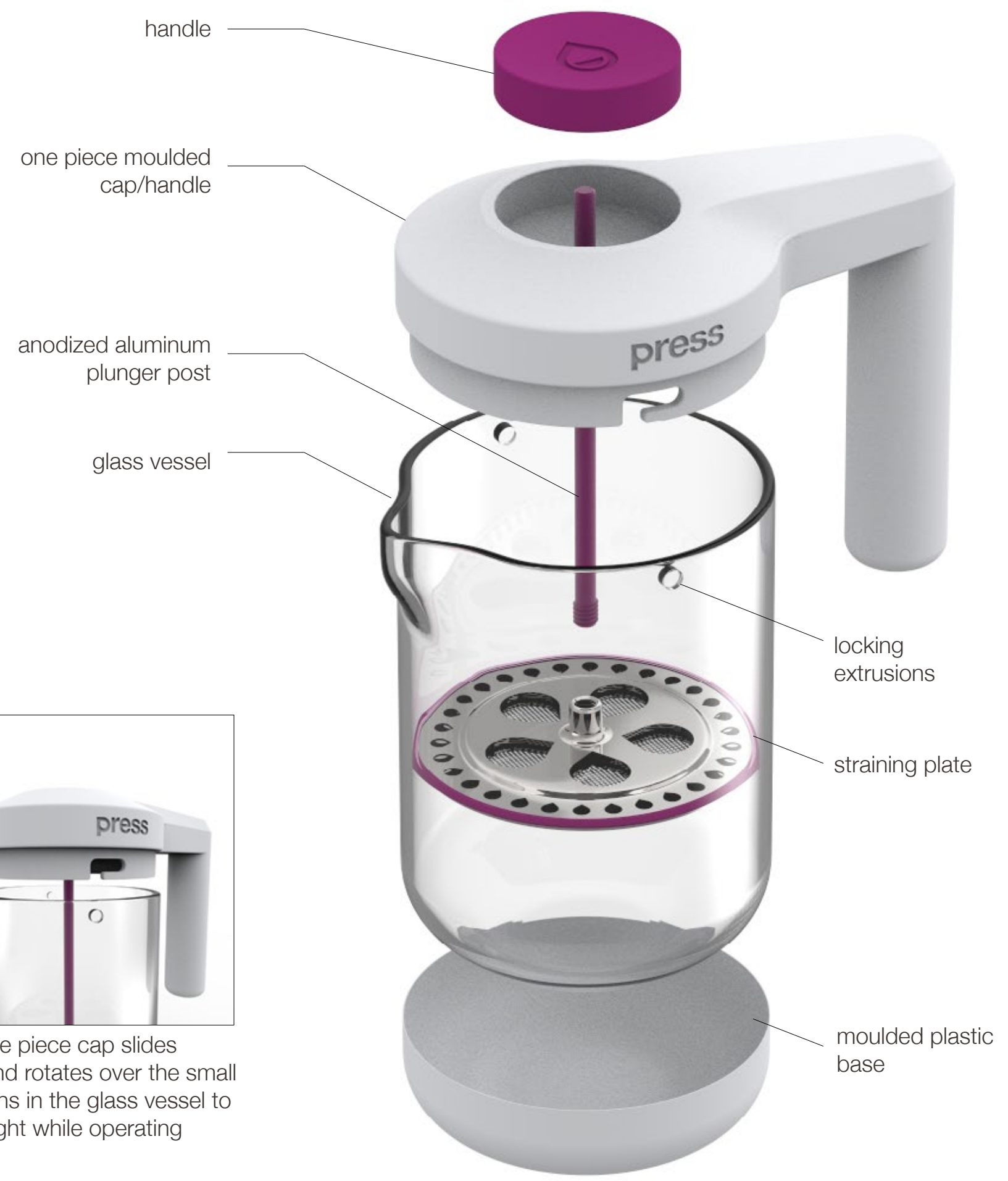


# French Press

The large handle makes the action of pressing the grinds more ergonomic, and enjoyable. The colored core highlights what is going on inside the glass jar for a more illustrated and clear observation of contents.



The once piece cap slides down and rotates over the small extrusions in the glass vessel to lock it tight while operating







# **OXO** Electric Mixer

Power Tool Design Studio


A ten week design studio for the design of a hand held power tool for OXO.



How can we improve the standard electric mixer, to make it easier to use for an elderly user?

## PROBLEM STATEMENT

There are many problems with current electric mixers that make them hard to figure out and stressful to use, especially for a large percentage of older users who bake more often.



“I’m tired of my old blender, It’s hard to hold for so long, the buttons are hard to push, and I always have to clean the cord after each use. I’m getting older and It’s not as easy to use my kitchen tools anymore.”



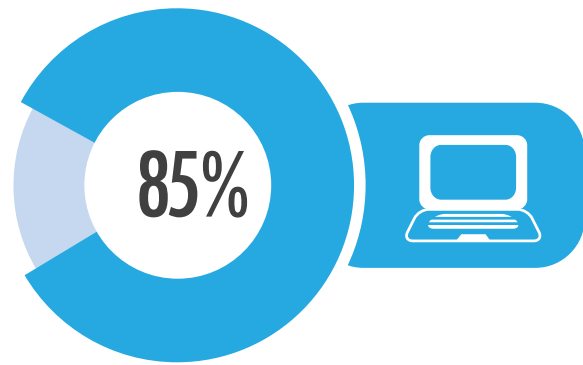
USER

My target user is from an older generation that cannot get around as easily anymore. They need a tool with more intuitive functionality, takes less maintenance, and is easier to use.

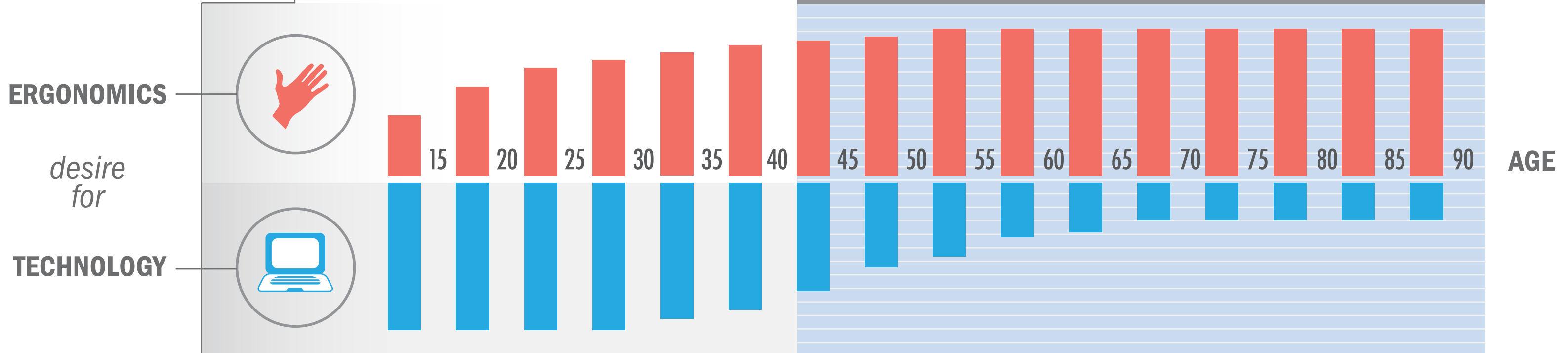
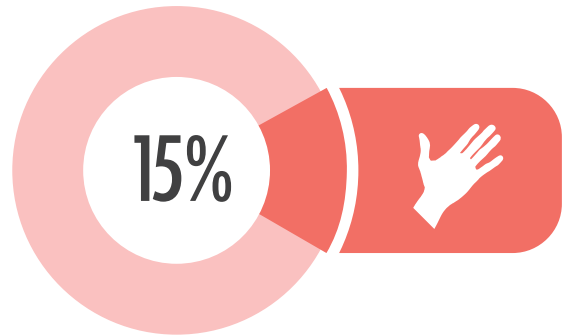


# MARKET TRENDS

When designing a new kitchen mixer, 85% of the current market focuses on improving the users experience by adding technological features,



While only 15% of the designs show a priority in improving the ergonomics when focusing on ease of use.



## TURNING RESEARCH



All kitchen mixers use the exact same body style. Focusing on technological advancements can only go so far in facilitating an easy user experience.

## INTO DESIGN STRATEGY



With the advances in newer lighter materials and mechanics, it's time to re-imagine the mixer from the ground up. How can we make it easier to use?

### TARGETED DEMOGRAPHIC

From the ages between 45 and 90 there is a dramatic decrease in the need for technological features, and a great need for ergonomic improvement to contribute to the products ease of use.

## PROBLEM AREAS

Rolling the speed knob was very uncomfortable, and there was no place to rest the thumb to the side of it.

Strain on the forearm and shoulder start to become uncomfortable and tiring after 2-3 minutes of use.



Subject has to dangerously clean the power cord with warm water after getting dirty during all of the operations on the counter top.

## TASK ANALYSIS

From My task analysis, I addressed five main goals to inform my design. These help guide my iterative process to conclude with a final product that addresses all the problems of current competing products.



### Difficult to Eject Beaters

The button to eject the beaters was very hard to engage fully

### Difficult Speed Adjustment

Hard to articulate, and has an additionally hard to understand “boost” push button function

### Uncomfortable Grip

The grip puts strain on the wrist and forces the forearm and shoulder into unnatural positions

### Bulky Heavy Body

Extremely heavy over-all weight and bulky size for the layout of mechanical components

### Messy Power Cord

The Power cord gets tangled in whatever is on the counter top and gets dirty



## PROBLEMS

After a thorough diagnostic of the strengths and weaknesses of the current standard of mixers, I formed design goals to help solve these problems and improve the design.



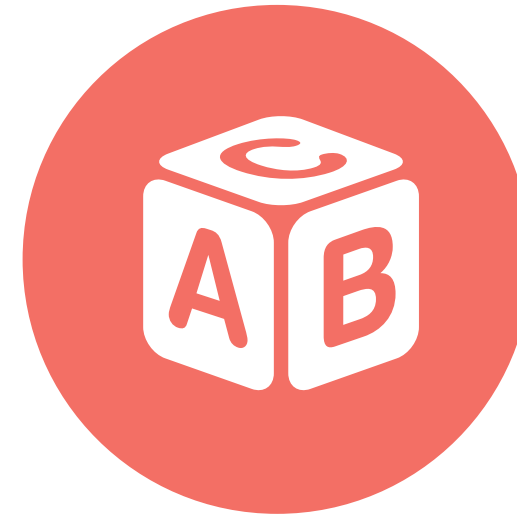
### Wireless Battery

The operation will be wireless. Without a power cable flopping over the counter top, use as well as storage will be simpler, safer, and more hygienic.



### Ergonomic Grip

Holding and using the mixer will relieve some of the stress off of the shoulder and wrist.



### Ease of Use

The use of the machine will be more intuitive. I want to only include features that are necessary and focus on making the two most common points of control stress free.



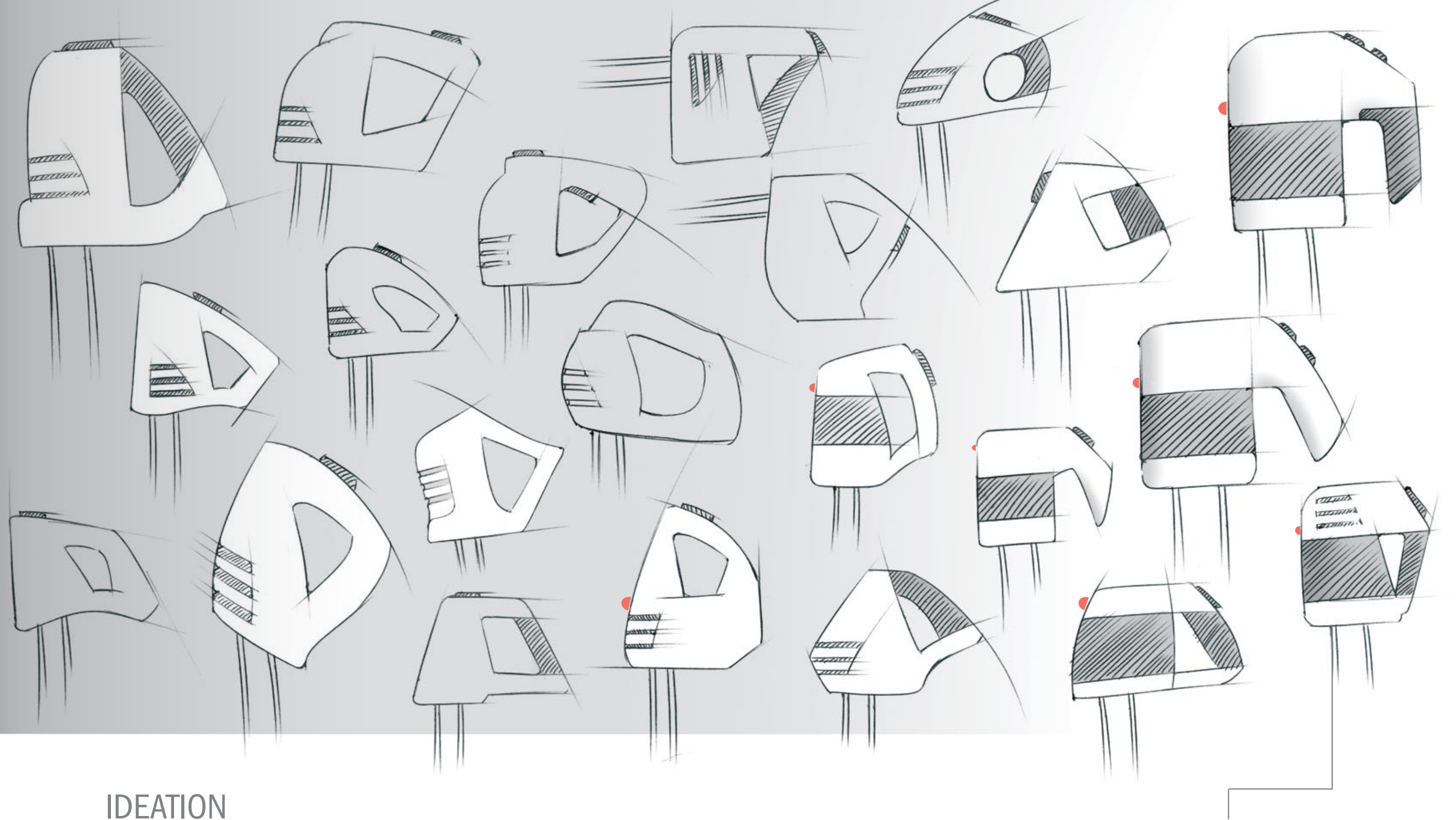
### Power Adjustment



### Beater Ejection

## DESIGN GOALS

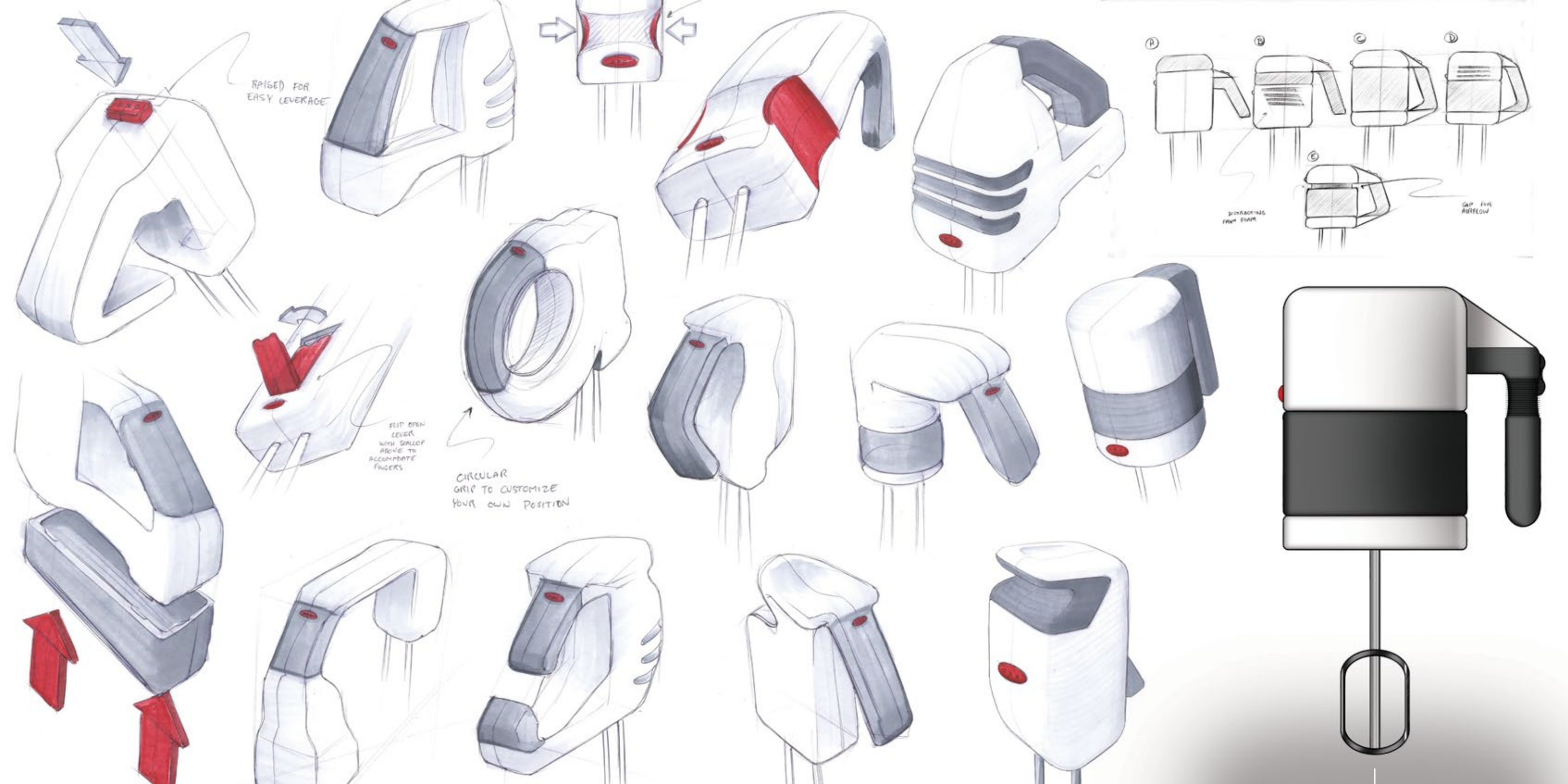
From My task analysis, I addressed five main goals to inform my design. These help guide my iterative process to conclude with a final product that addresses all the problems of current competing products.



## IDEATION

This phase of the project was dedicated to exploring the relationship between aesthetic, function, and the visual elements that make a product specific to the OXO brand.

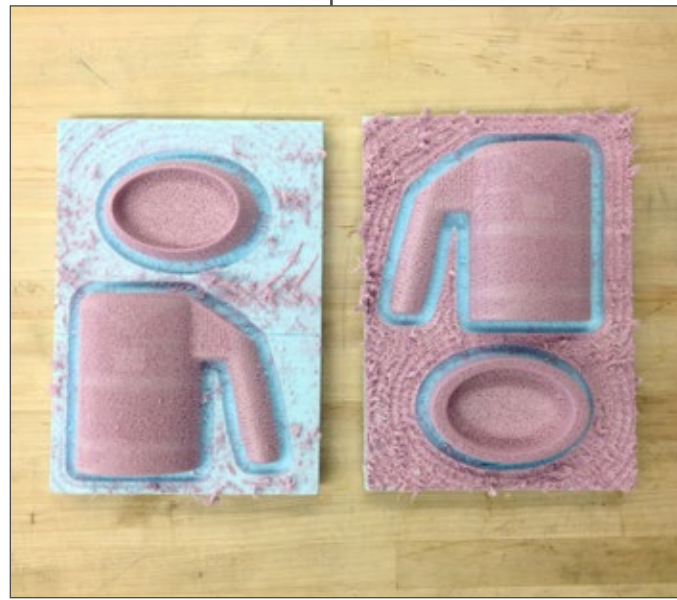
To the right are the sketches that started to resemble the honest and friendly OXO brand.



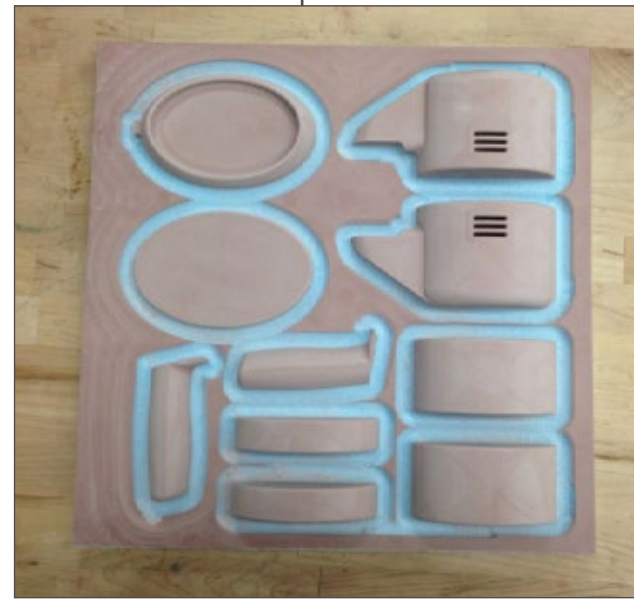
## DEVELOPMENTAL SKETCHING

After coming to exploring the aesthetic possibilities, it is time to start understanding my ideas on a functional level. Understanding the different ways to incorporate the main functions helped to define the final form.

This is the final direction I chose, based on the functionality, ergonomic stance, and the OXO-brand distinction of pure form.



Hand carving, then CNC milling foam ergonomic iterations led me to a conclusive design that looked felt just right.



The final model was CNC milled out of a high density polyurethane foam



Individual components were sanded, primed, and painted. Buttons and emblems were 3D plaster printed.



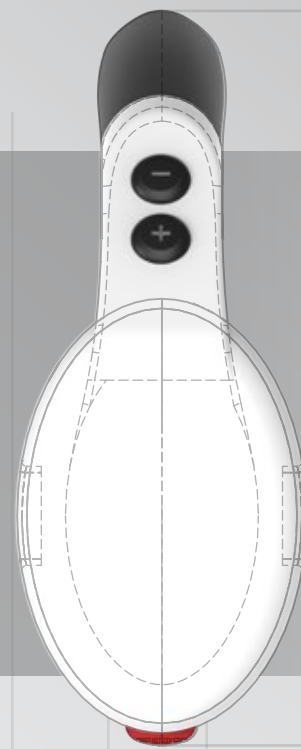
My final model was made to accurately represent the look, feel, and weight of my design.

## PROTOTYPING & MODEL MAKING

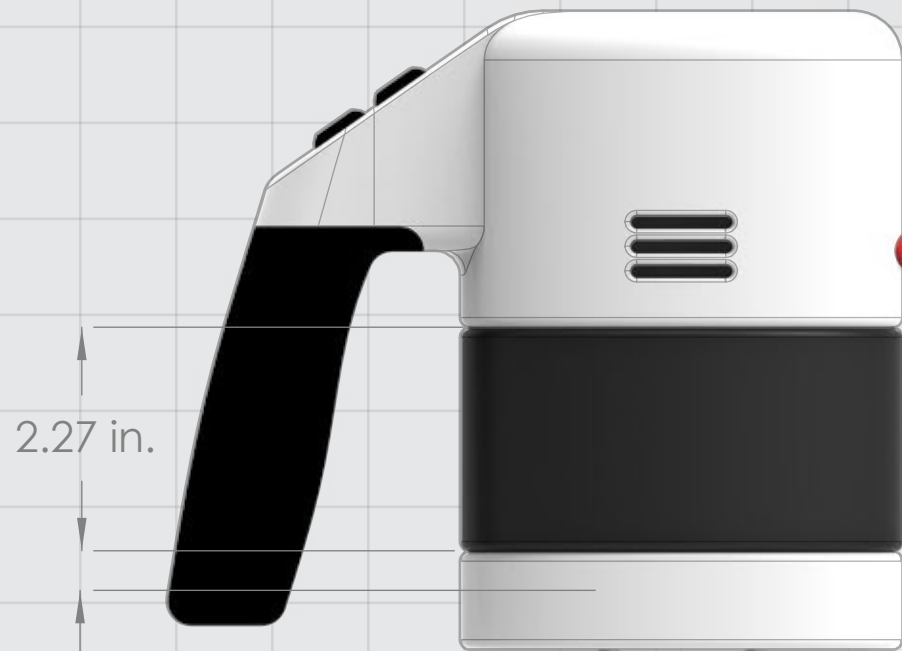
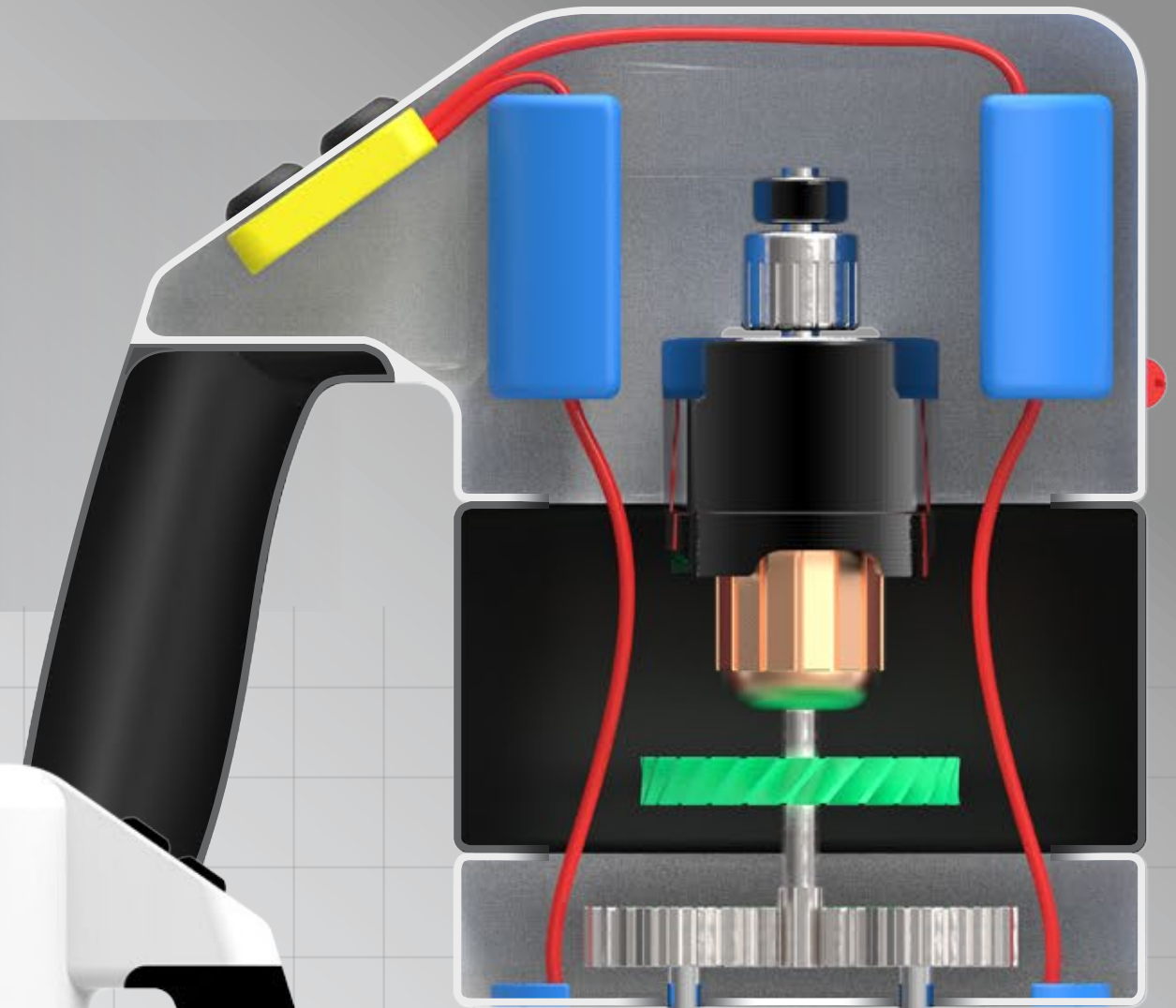
Many foam ergonomic studies and design iterations informed my final model both aesthetically and functionally.

# OXO ORTHOGRAPHICS

In changing the axis of the beaters in relation to the axis of the motor, the mechanics could be scaled down in size to fit into a more compact body. This change not only cuts down on the weight of unnecessary parts, but allows for a smaller size for easier mobility.



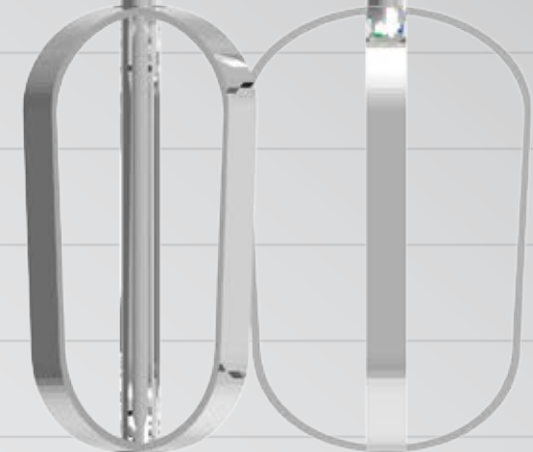
7.61 in.



2.27 in.



5.64 in.





# FEATURES



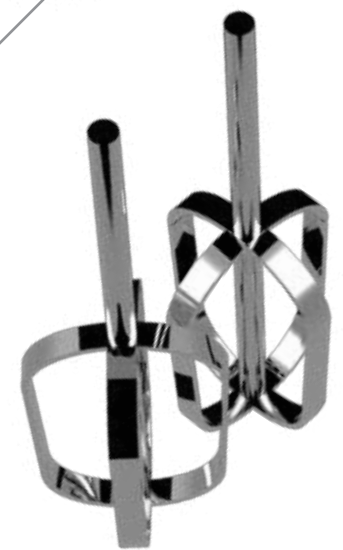
**CORDLESS OPERATION**  
with wireless inductive charging dock

**COMPACT**  
for easy mobility

**4 - SPEED ADJUSTMENT**  
with overdrive

**ERGO GRIP**  
for a less stressful arm position

**BEATER EJECTION**  
low impact





# Walter, THE Whale

*An open source modern  
children's toy for the DIY parent*

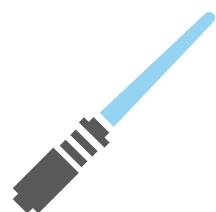


STEP 01



grab materials

STEP 02



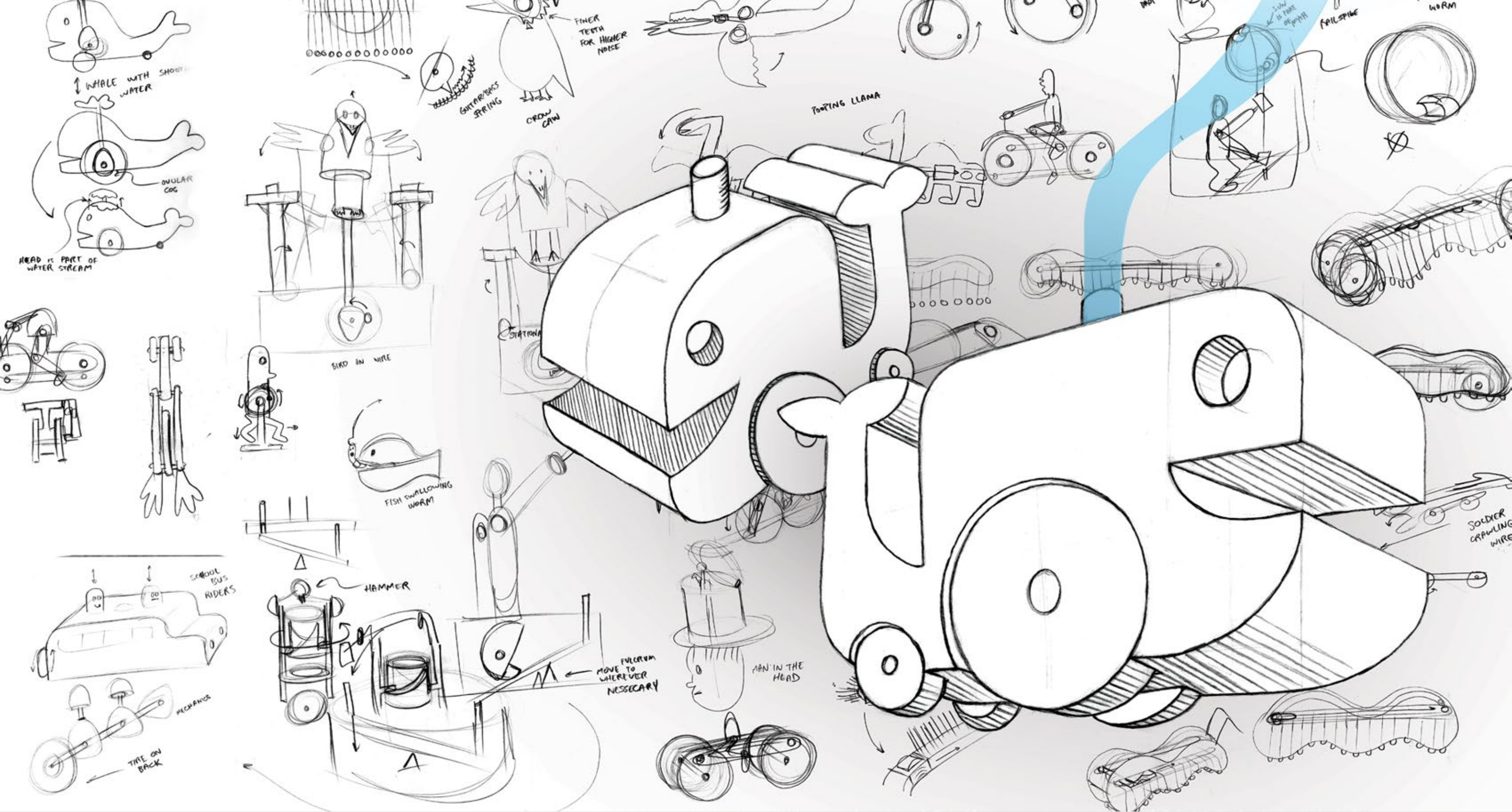
take file to  
local laser cutter

STEP 03



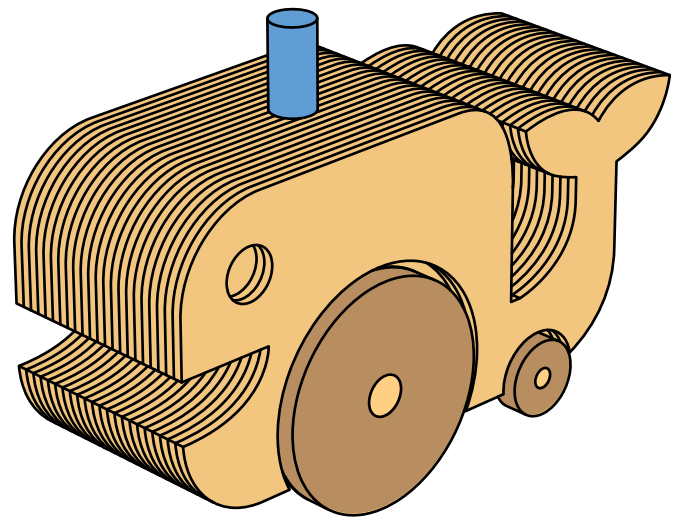
assemble

*\* wordmark created by Jenna Blazeovich*

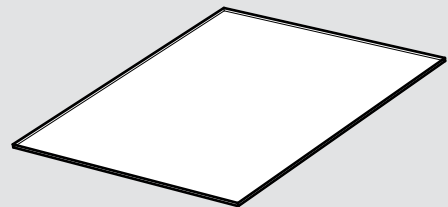


## IDEATION

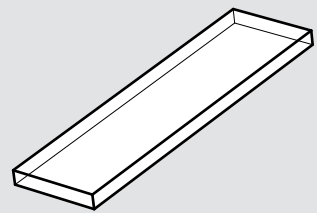
Through rough developmental sketching I explored different animals and their possible mechanical features



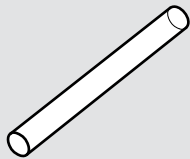
## MATERIALS



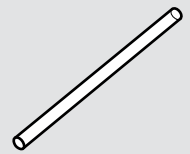
1/4" x 2' x 4'  
plywood board



1/2" x 4" x 12"  
walnut plank

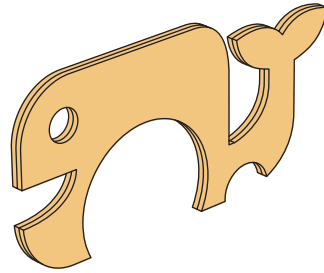


1/2 inch dowel

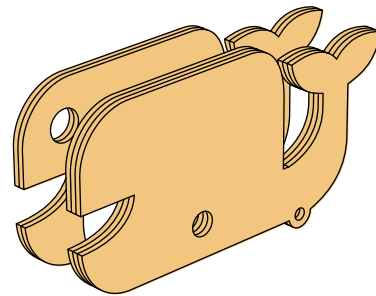


1/4 inch dowel

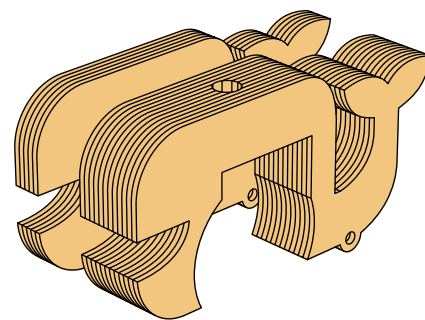
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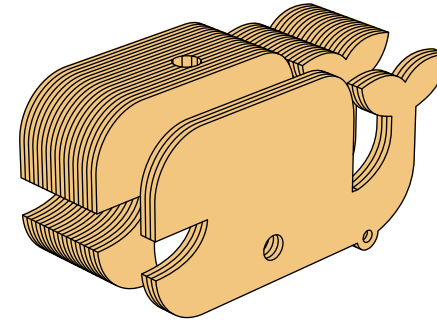
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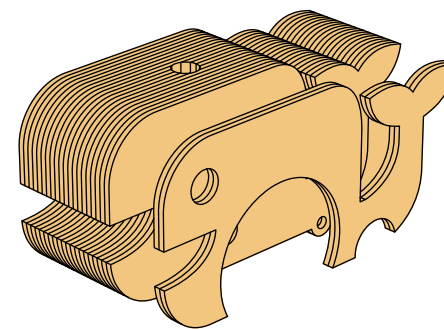
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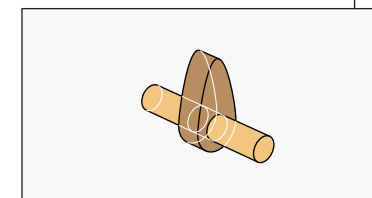
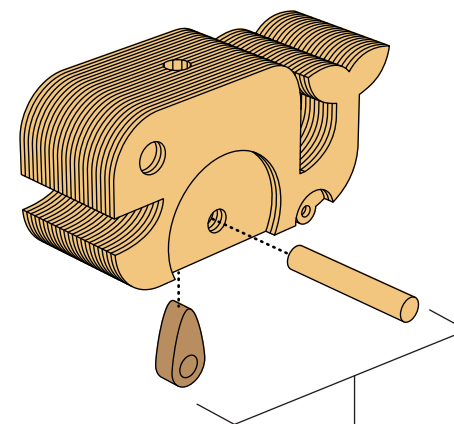
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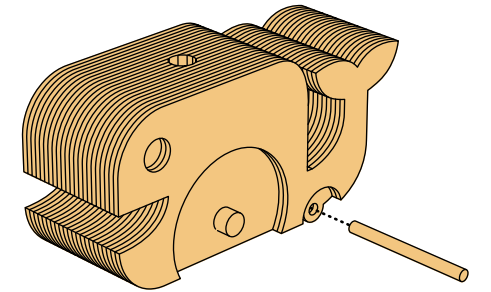
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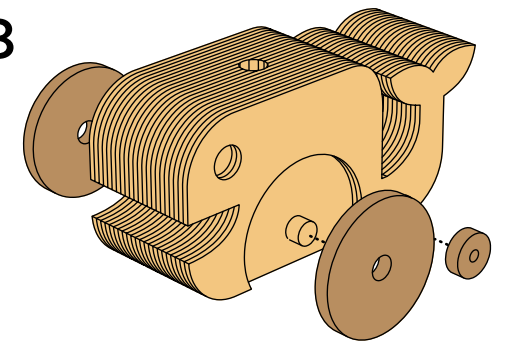
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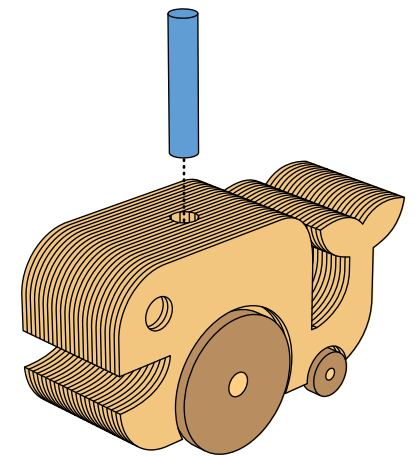
7



8

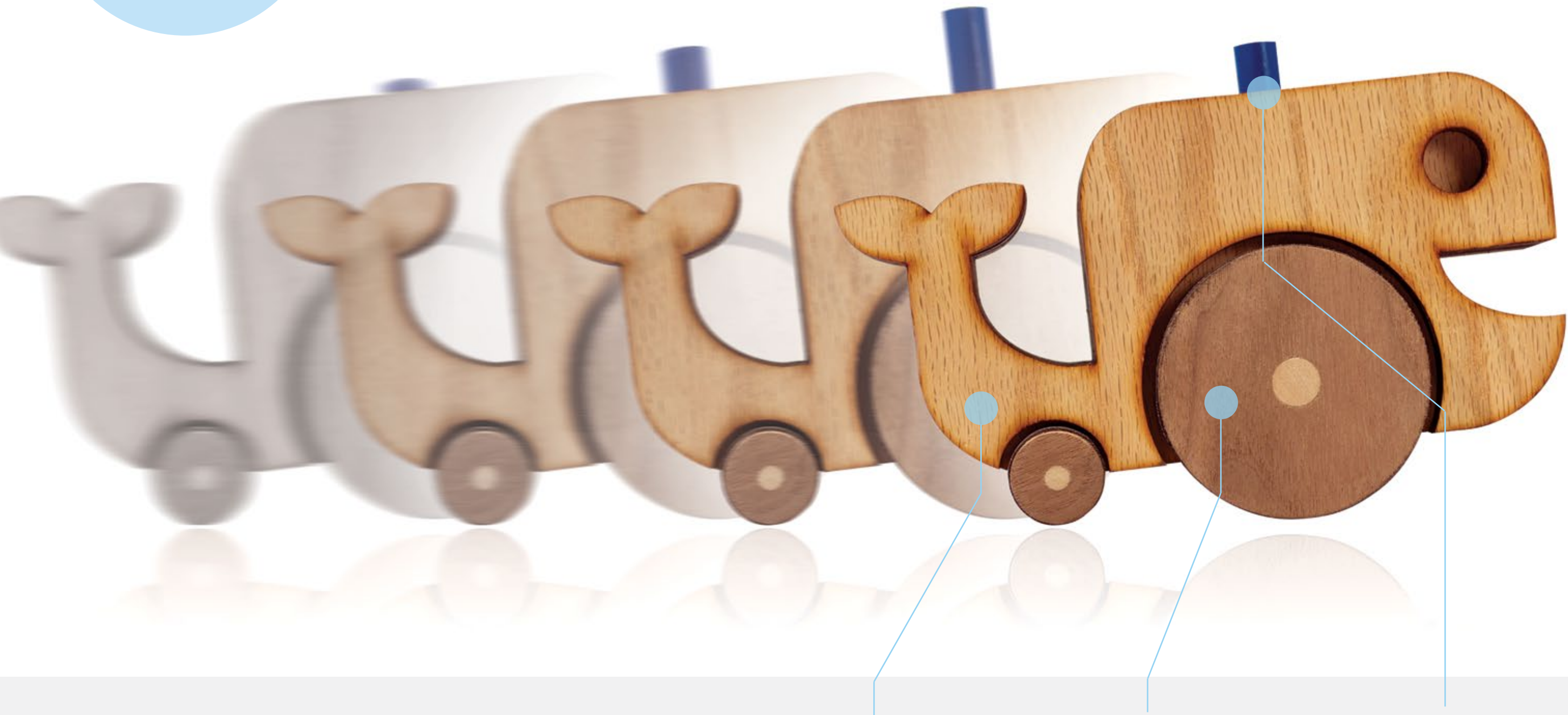


9





Click here to download  
Walter's file!



## FINAL PRODUCT

Walter's mechanism is based on the gift nature gave him. Swimming along he cheerfully spouts a stream of water.

LASERCUT OAK  
LAMINATE BODY

SOLID WALNUT  
WHEELS AND GEARING  
FOR WATER SPOUT  
ACTION

BLUE SCROLLING  
DOWEL TO SIMULATE  
WATER FLOW AS  
WHEELS TURN



SONOS

**SONOS**

**PLAY:LP**

A concept designed at Sonos  
for the future of listening to vinyl



**Exciting, but slightly confidential.**

Ask me for a sneak peak!



PERSONAL PROJECT  
Walnut Shaker style end table

**JOE  
FRANKL**

mail@joefrankl.com

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