# JON GROSSMAN

Industrial Design

Jon Grossman *Cell: 818 605 5151* *Email: jonoj2g@gmail.com*

# Experience

1 year and 11 months total.

## Munchkin Inc.

Los Angeles, CA

Product Development Intern

Jun 2009 - Sep 2009
Jul 2010 - Sep 2010

*Employed right out of high school and again after my first year of college, I designed and developed baby and pet care products in a highly collaborative environment.*

## Insync Design

Whippany, NJ

Industrial Design Intern

Mar 2011 - Jun 2011
Sep 2011 - Dec 2011

*Worked on many projects for a wide variety of industries, from medical and healthcare to cosmetics and EV chargers.*

## Carbon Design Group

Seattle, WA

Industrial Design Intern

Mar 2012 - Jun 2012

*Worked on consumer and medical devices, conducted design research, and created presentations for clients.*

## Enthoven Associates Design Consultants

Antwerp, Belgium

Industrial Design Intern

Aug 2012 - Oct 2012

*Worked on consumer electronics, medical devices, and transporation design. I was involved in brainstorming sessions, sketch development, and CAD development.*

## Spill.net

Paris, France

Graphic Design Intern

Mar 2013 - May 2013

*Designed websites, branding, animations and experiences for the fashion and luxury industries. I was responsible for website design, UX design, logo design, photo manipulation, and related tasks.*

## Box Clever

San Francisco, CA

Industrial Design Intern

Aug 2013 - Present

*Responsible for sketching, CAD, and assisting at all points in the product design process. Worked on large projects for home goods, furniture, and consumer electronics.*

# Education

## University of Cincinnati

Cincinnati, OH
2009 - 2014
B.S. Industrial Design

*Design student at the number one ranked univeristy for industrial design in the US.*

awards:

*Dean's List All Quarters*
*Honors Travel Grant*
*Cincinnatus Scholar*
*Alumni Scholarship*
*DAAP Scholarship*

## University of Wuppertal

Wuppertal, Germany
Oct 2012 - Mar 2013
Study Abroad

*Study abroad experience at one of the top industrial design schools in the world, with a focus on design for manufacturing.*

# Sponsored Studios

## Taiwan Design Workshop

*Summer Quarter 2010*
*In Taiwan*

## UC College of Nursing

*Winter Quarter 2012*
*in Cincinnati*

## Deutsche Telekom

*Winter Semester 2013*
*In Germany*

## Samsung

*Summer Semester 2013*
*In Cincinnati*

## MeadWestvaco

*Fall Quarter 2011*
*In Cincinnati*

## Japanese Playground

*Summer Quarter 2012*
*In Cincinnati*

## Knipex Pliers

*Winter Semester 2013*
*In Germany*

## Frog Design Workshop

*Summer Semester 2013*
*In Cincinnati*

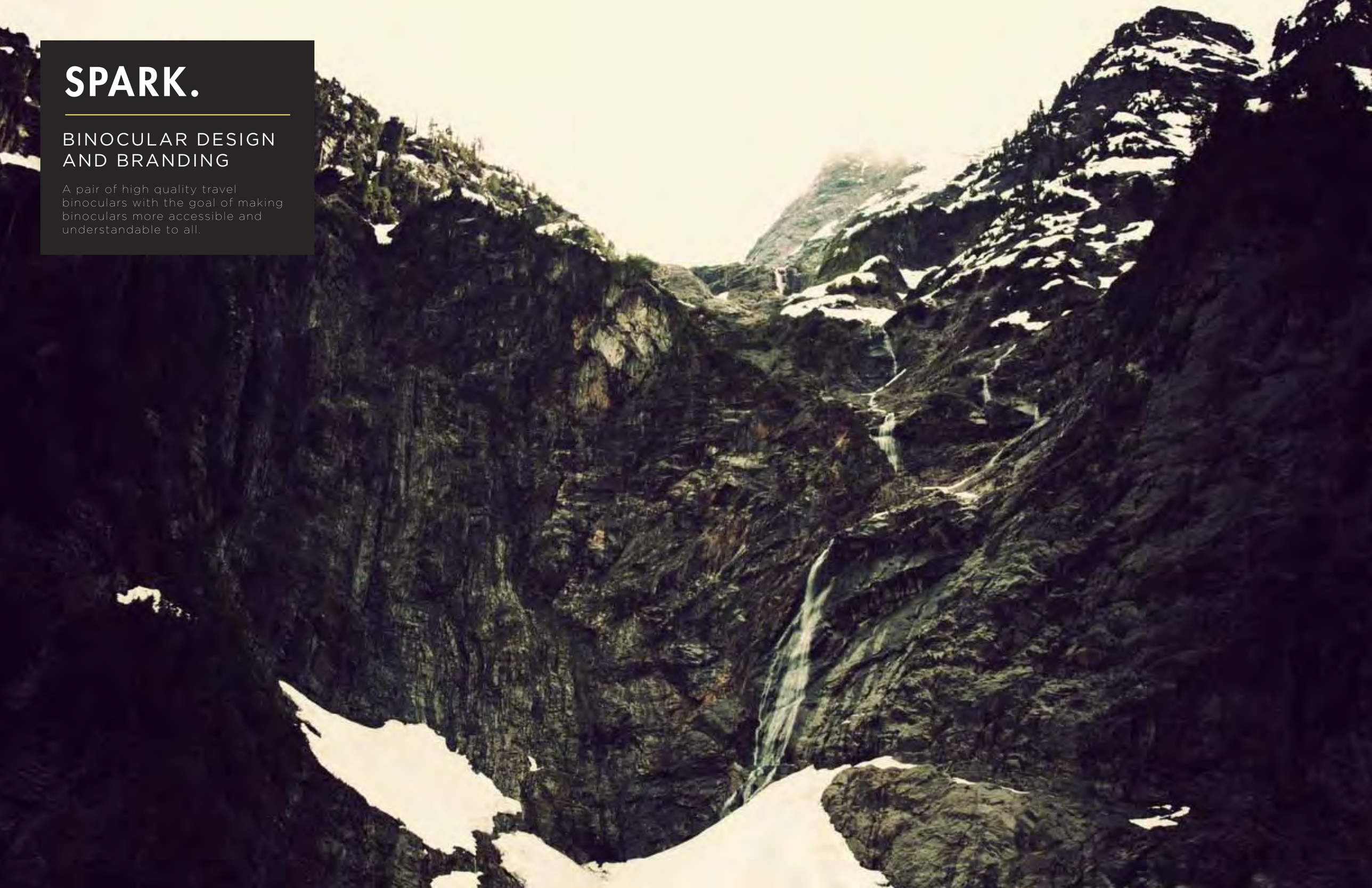
## Software I Use

*Adobe Photoshop*
*Adobe Illustrator*
*Adobe Indesign*
*Adobe After Effects*
*Sketchbook Pro*
*Solidworks*
*Rhino*
*Keyshot*
*Bunkspeed Shot*
*Maxwell Render*
*MS Office*
*Alias*
*My Hands*

# SPARK.

## BINOCULAR DESIGN AND BRANDING

A pair of high quality travel binoculars with the goal of making binoculars more accessible and understandable to all.

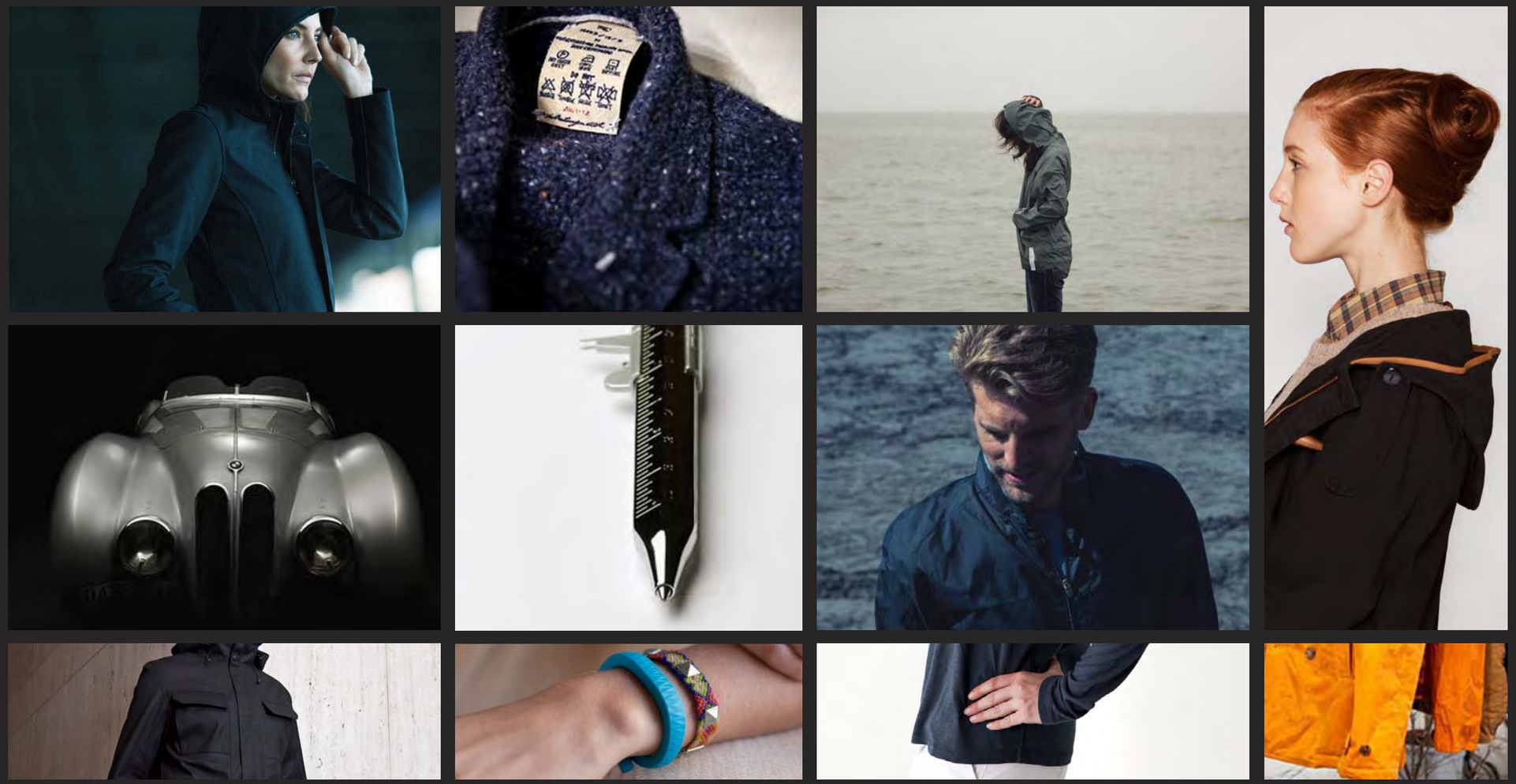


# Powerful Brands Create Powerful Products.

The Spark Optics brand is centered around the idea of high fashion meeting high technology. The products it will create will fit most crisp and modern wardrobes, and will be marketed around adventure and discovery.

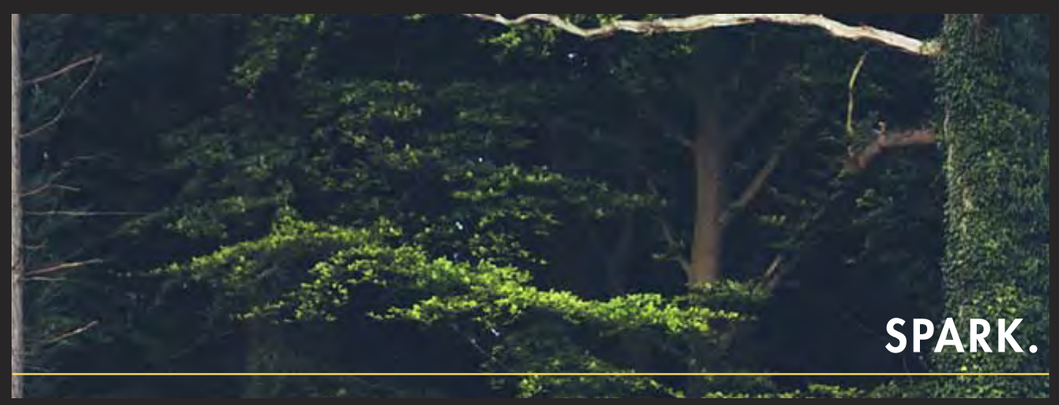
## SPARK.

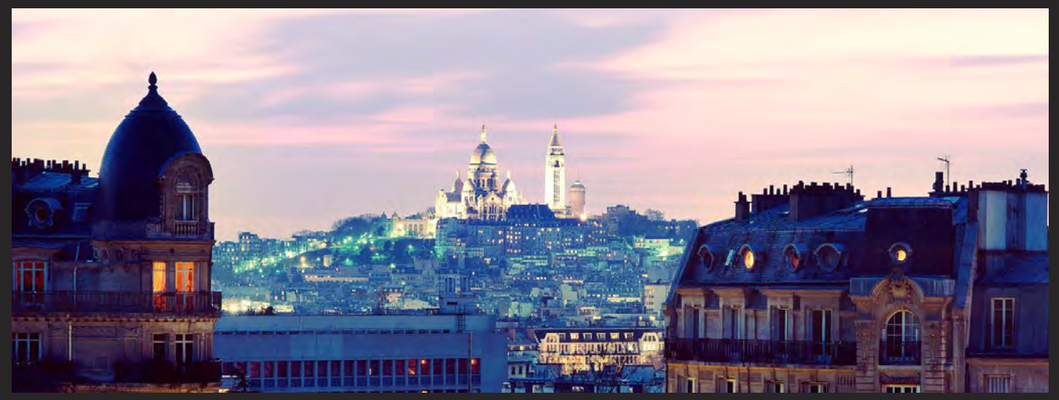
FIND SOMEWHERE NEW.



# Spark Scapes

Keeping true to “Find Somewhere New”,  a series of photographs that represent adventure and discovery can be overlaid with the logo mark and line. This imagery helps explain the brand values and ideas with few words. Phrases can be overlaid on top to make an advertisement.

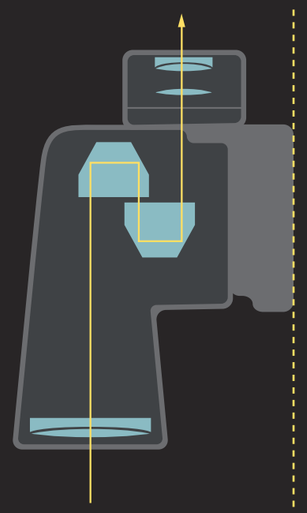

SEE FOR
YOURSELF.
SPARK.


FIND
SOMEWHERE
NEW.
SPARK.

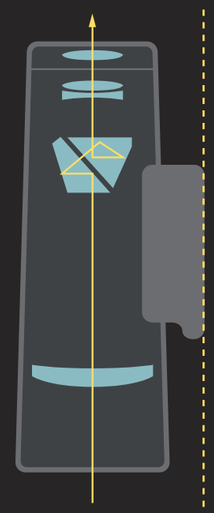
# How do Binoculars Work?

Binoculars use polished glass prisms to reflect light and magnify an image. There are two arrangements used in binoculars today- the Porro Prism and Roof Prism.

## Porro Prism



## Roof Prism



## What does the Prism do?

When an image is magnified with the objective lens in the binocular it is also flipped upside down. A prism is needed inside to flip the image back over- there are two styles of prisms, with the main driver being a cost to quality ratio.

## About Lens Coating

| | | |
|---|---|---|
| Coated | C | Only the outside lenses have a coating |
| Fully Coated | FC | All the lenses have coatings |
| Multi-Coated | MC | Some of the lenses have multiple coats |
| Fully Multi-Coated | F MC | All the lenses have multiple coats |

## About Lens Glass

| | | |
|---|---|---|
| Barium Crown | BaK4 | The highest quality glass with minimal reflections. |
| Borosciliate Crown | BaK7 | The number 2 quality glass- much more affordble. |
| Fluorite Crown | FPL53 | Another higher quality but less expensive glass |
| Phosphate Crown | PSK3 | Low cost, low quality |

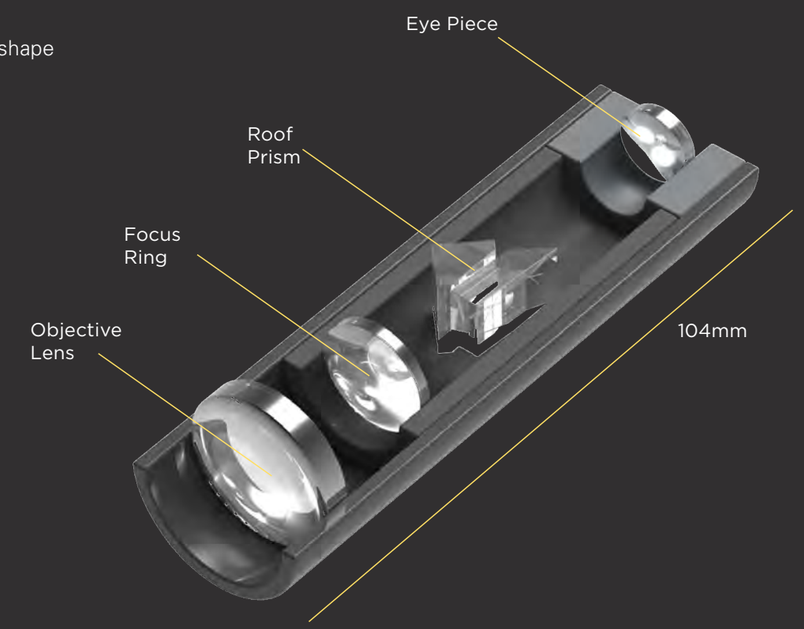
## Spark Binoculars Specifications

This is the package file created to ensure that the binoculars are designed within the correct size and shape of travel binoculars. It provides a framework for the industrial design to be built around.

# 8 x 25

Magnification: 8x
Objective Lens: 25 mm
104.14 mm long
114.3 mm wide

| | |
|---|---|
| FMC | Fully Multi-Coated |
| RP | Roof Prism |
| BAK4 | Barium Crown Glass |
| CF | Central Focus |
| WP | Water Proof/Vacuum Sealed |




## What do Lens Coatings do?

### Ruby/Red

Used in hunting binoculars, it reduced the amount of red light, making blues and greens more vivid.

### Blue/Green

The highest quality lens color- these colors are not phased out when coated on a lens.

### Mirror

In a roof prism, light reflected at such extreme angles that a lot of it is lost. The mirror coat prevents this loss of light.

### Phase Correction

In a roof prism, light is split in two beams. When those beams come back together, one is moving faster- this coating realigns those beams.

### Anti-Reflective

Helps reduce reflections to improve clarity. The more light that comes through, the better the quality.

# What are the Design Goals?

These are the features around which the Spark Binoculars will be designed.

## Use Case: Travel/Sightseeing

These binoculars are meant for travel and sightseeing. Whether it's an adventure in the local park or a trip around the world, the goal is for these binoculars to be designed well enough that people want to have them when they are active.

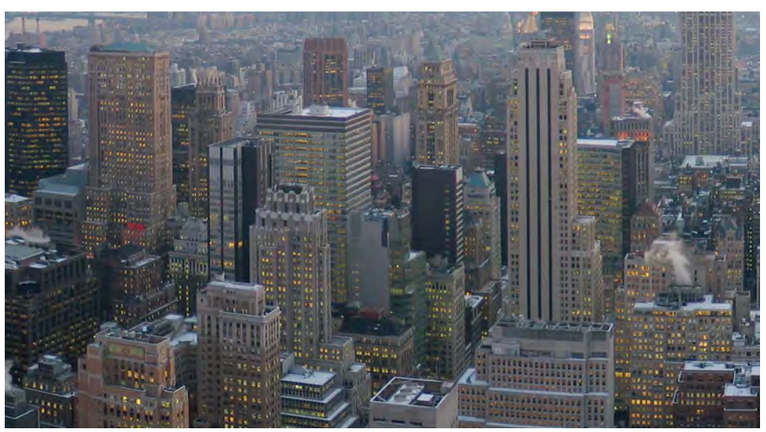







### Travel Sized

One goal of the hardware design should be to create a pair of binoculars that are pocketable and easy to take places.



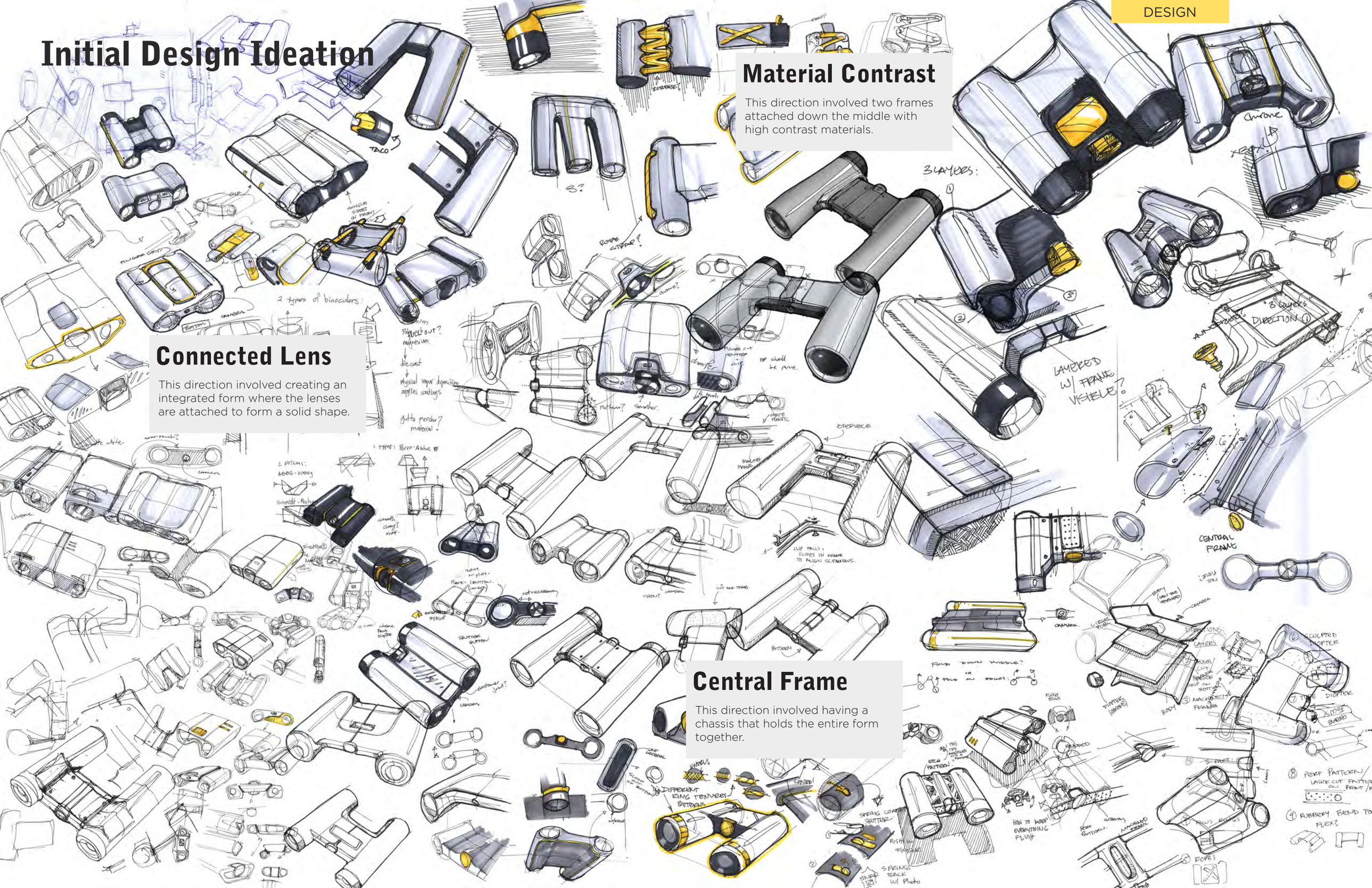
### Modern Design Language

Binoculars seem to have an issue with coming off as modern and relevant. The binoculars for this project should represent the newest and coolest in design today.

### Central Focus

These binoculars are meant for traveling and sightseeing. Whether it's on an adventure in the local park or a trip around the world, the goal is for these binoculars to be designed well enough that people want to have them when they are active.

# Initial Design Ideation




## Material Contrast

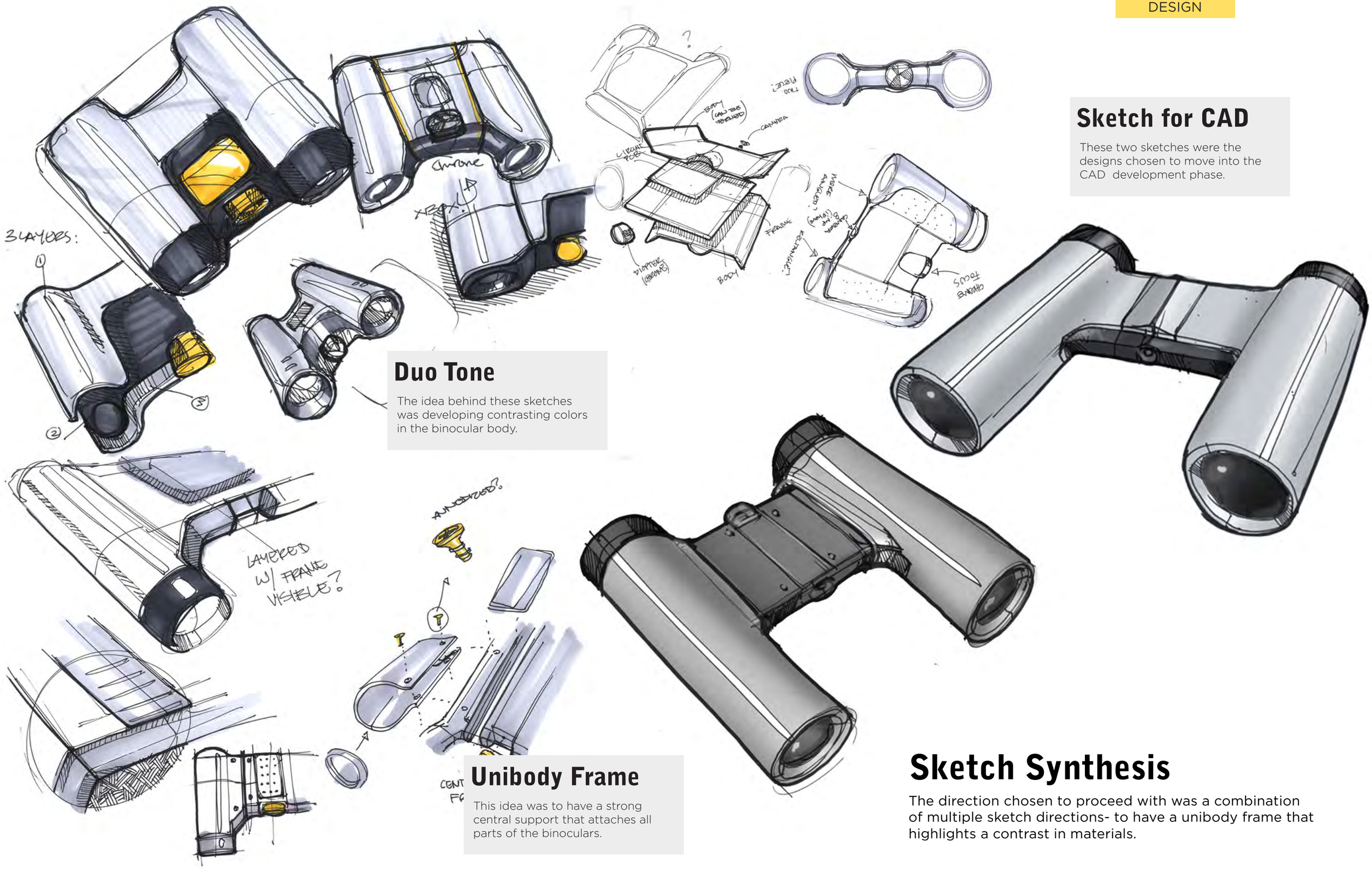
This direction involved two frames attached down the middle with high contrast materials.

## Connected Lens

This direction involved creating an integrated form where the lenses are attached to form a solid shape.

## Central Frame

This direction involved having a chassis that holds the entire form together.




## Sketch for CAD

These two sketches were the designs chosen to move into the CAD development phase.

## Duo Tone

The idea behind these sketches was developing contrasting colors in the binocular body.

## Unibody Frame

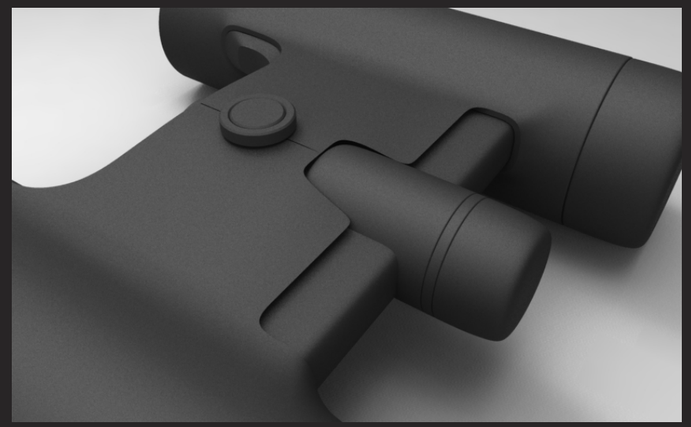
This idea was to have a strong central support that attaches all parts of the binoculars.

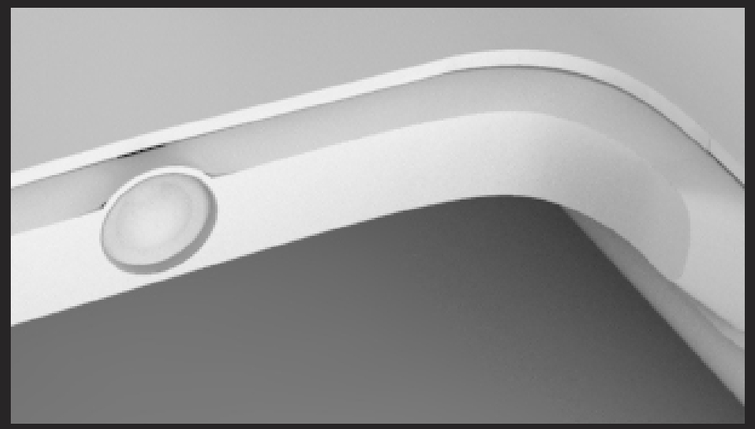
## Sketch Synthesis

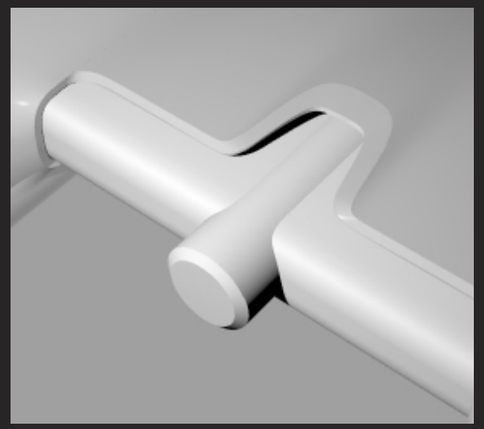
The direction chosen to proceed with was a combination of multiple sketch directions- to have a unibody frame that highlights a contrast in materials.

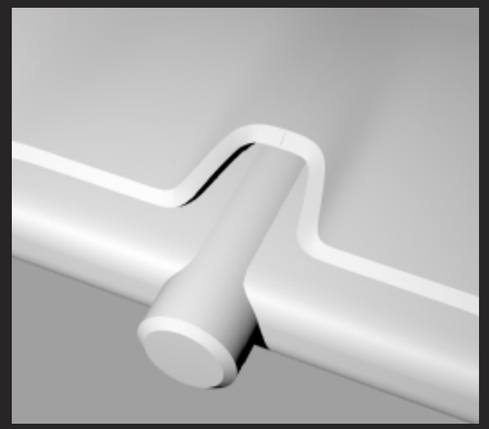
# CAD Detailing

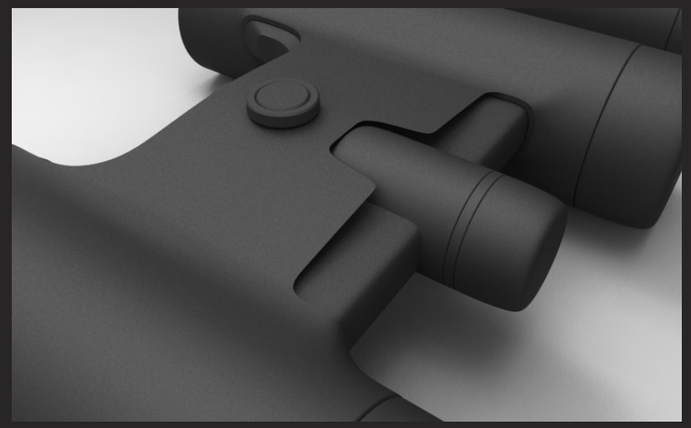
The design was realized and refined using Rhino, which allowed for precise control over surfacing and design. Every curve, surface, and cut was considered to create the most informed design decisions. These are a few examples of decisions made during the process.

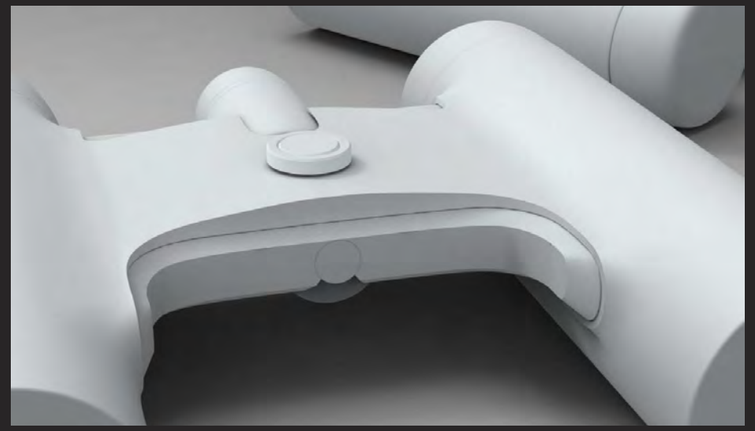


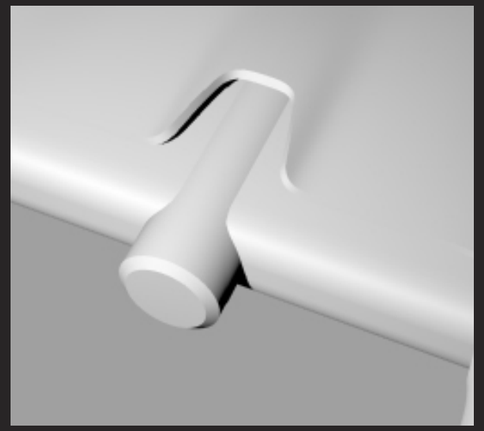


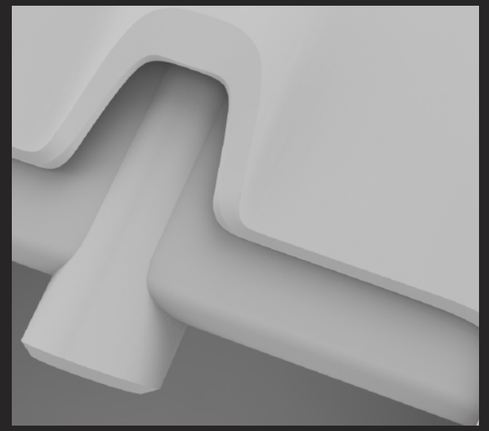












**Rear Surface**

The question here was whether the rear surface should be at the 1mm height used around the rest of the design, or should it rise in the middle of the bridge.

**Hinge Detailing**

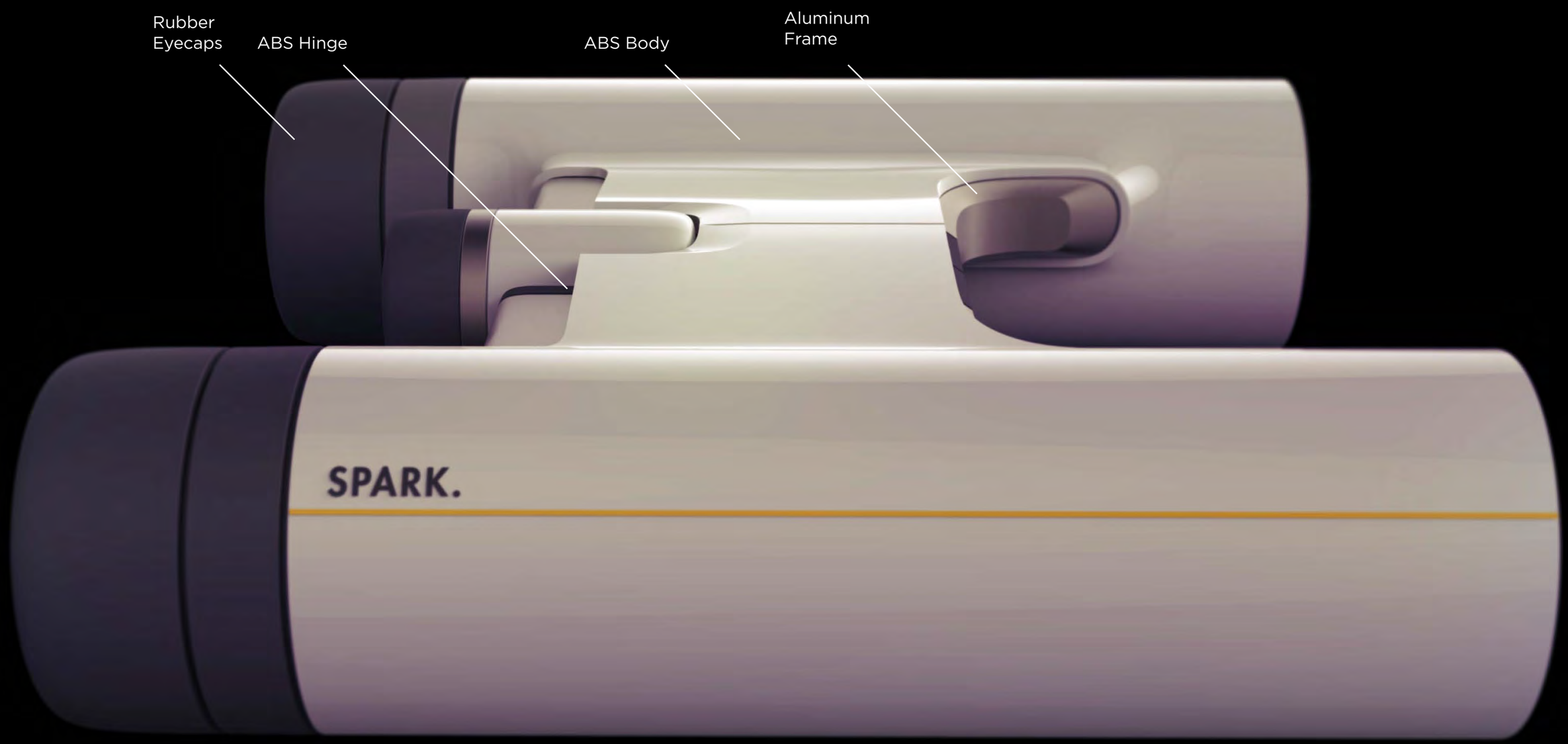
Considerable thought was put into how to elegantly cut out the cylinder in front so the two halves of the binoculars could close.

**Dial Surfacing**

The transition between the top surface, the bottom surface, the focus dial had a lot of opportunities for exploration and design.


# Introducing Spark Travel

The Spark Binoculars are a high quality, beautfiul pair of binoculars designed to shake up a stagnant industry.

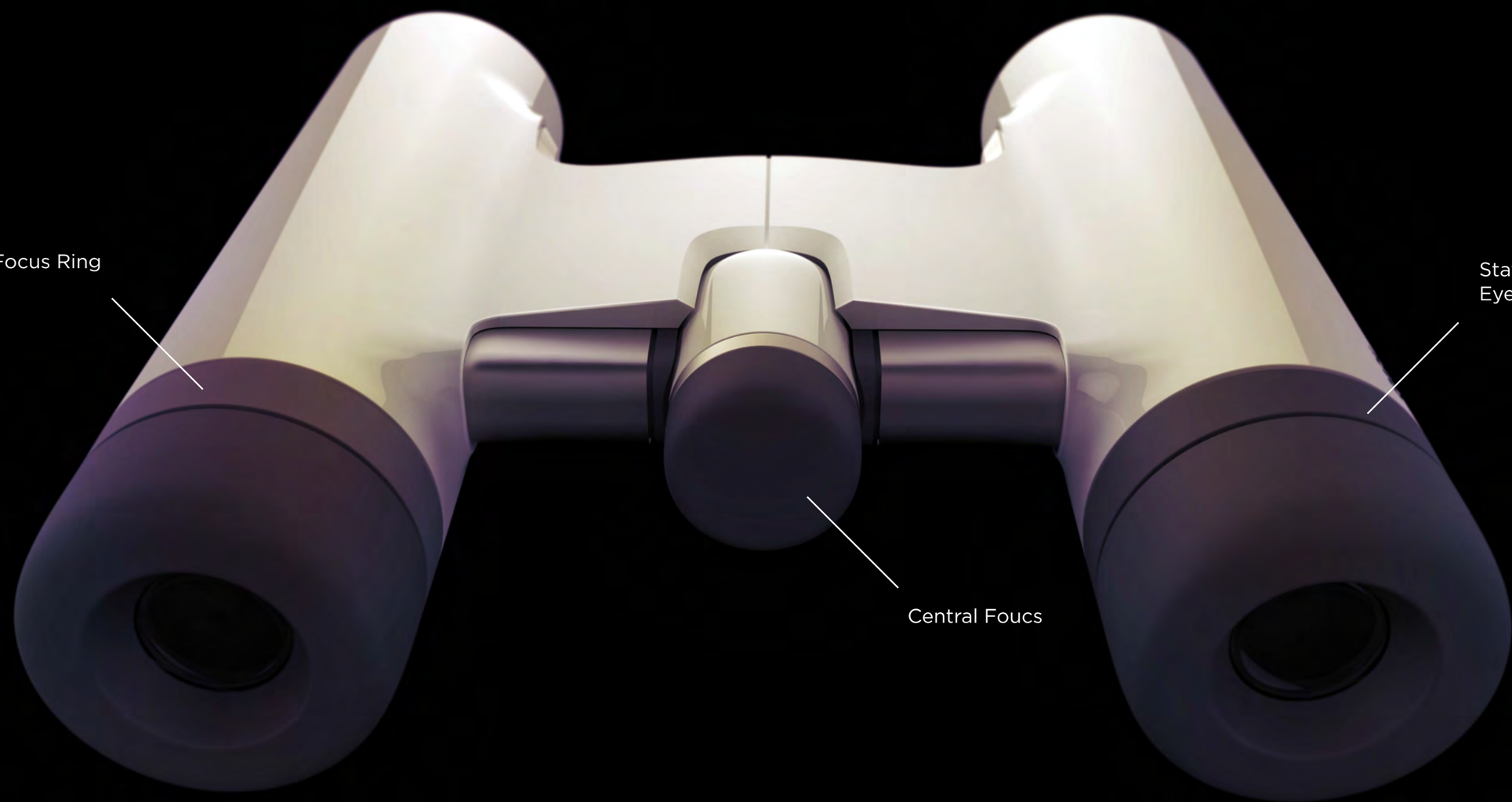



# Material Contrast

This design was heavily refined in rhino to have smooth surfaces. The surface transition from the aluminium frame to the white body is a very controlled surface- the idea was to look like it was being pulled out of wet paint. The transition from the focus dial to the body is also crisp and catches a nice highlight.

# Easy Focus System

The focus system on the Spark Binoculars is the central focus style. First adjust the main dial for the right eye, and then the gray dial for the left eye. Having the dial be dark grey instead of an intense texture also helps maintain the subtlety of the design.

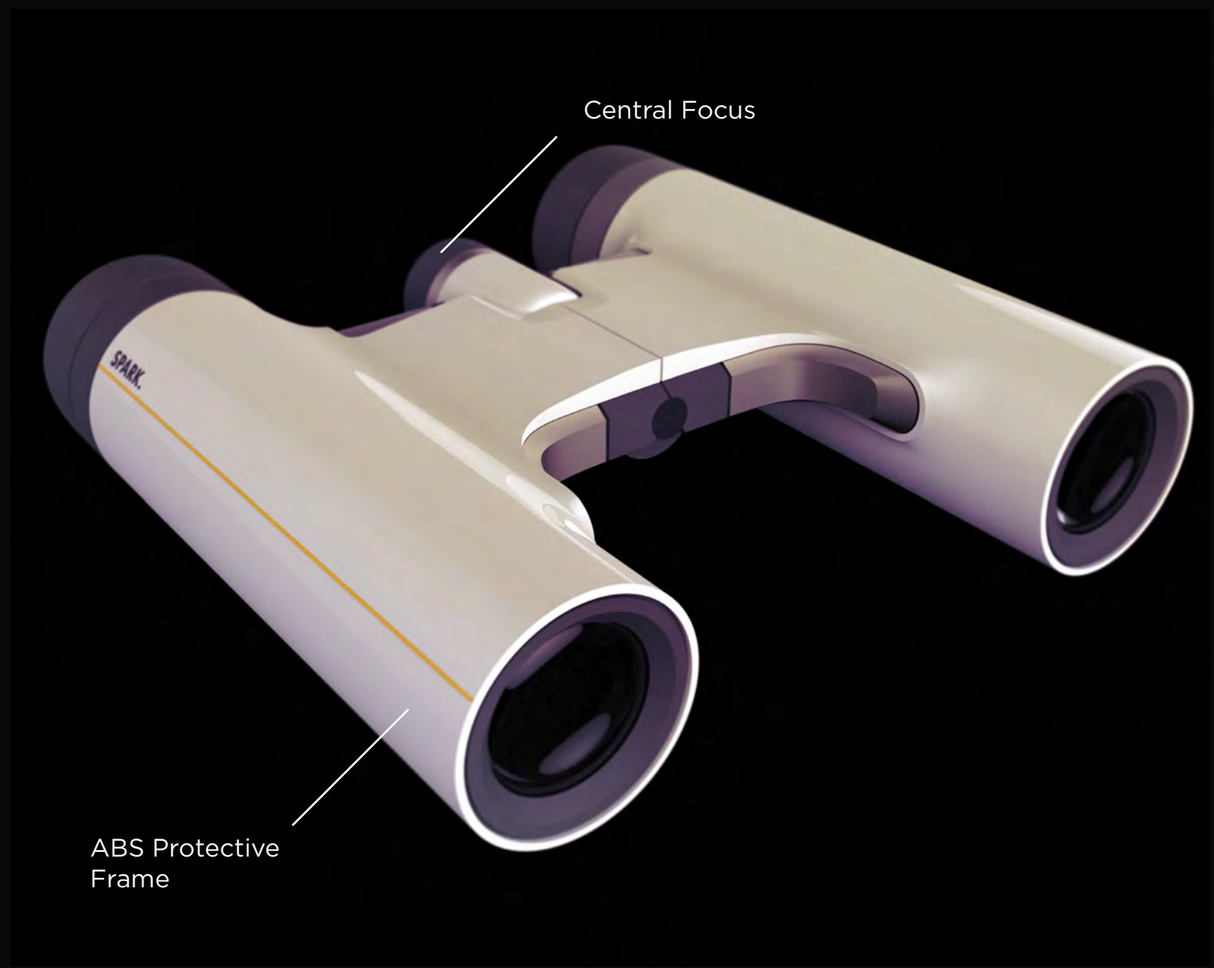


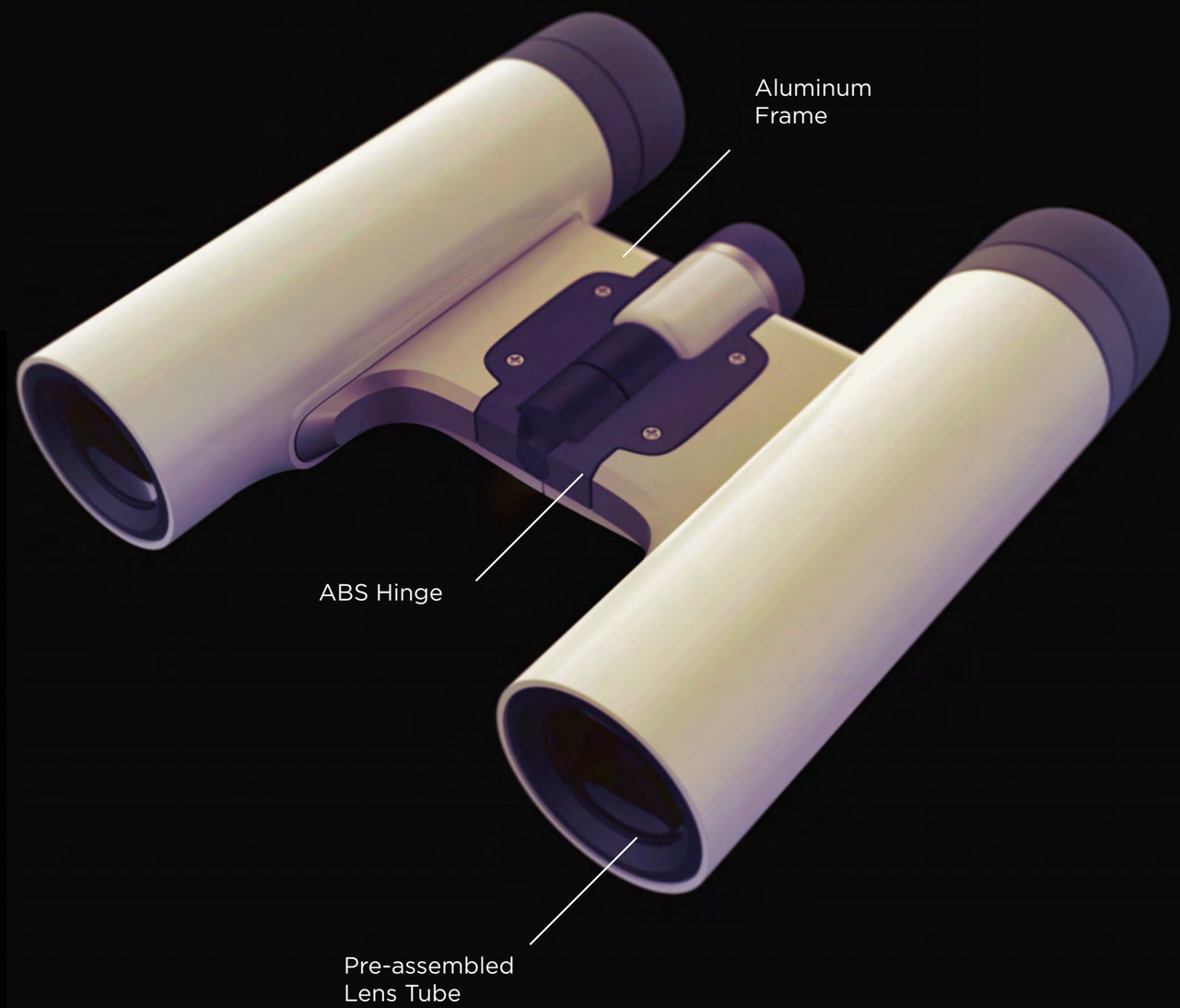
# Folding Binoculars

Being so small, the Spark travel binoculars fold down the middle to not only accomodate all face sizes, but shrink or flatten for travelling.

# Central Hinge

A hinge down the center keeps the binoculars together. This design element allows for a very streamlined manufacturing process where all three chassis parts are stacked on the hinge and screwed together.



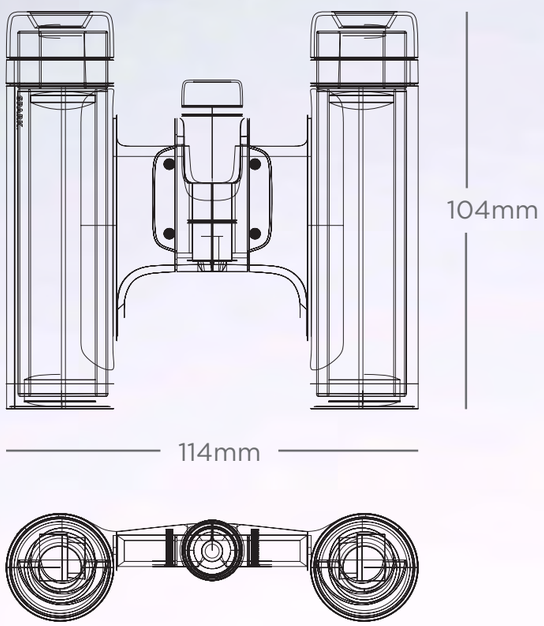

# Unibody Style Frame

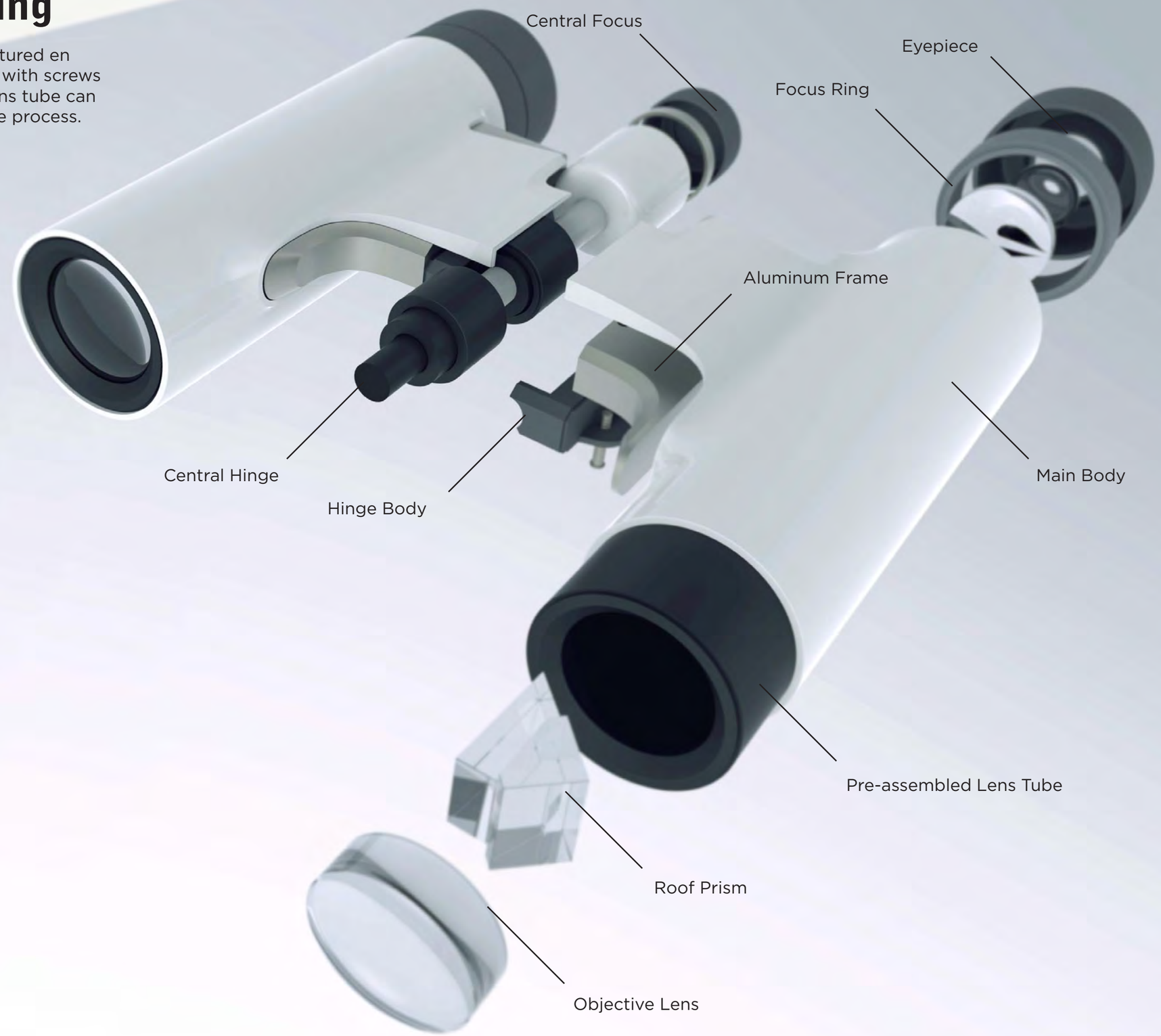
The core concept driving the aesthetics was the idea of a metal frame being the core structure of the binoculars. The rest of the form is held to that frame by four screws on the base that extend through the hinge and into the top form.

# Design for Manufacturing

The Spark Binoculars were designed to be manufactured en masse. The central hinge and body is held together with screws that go through the entire body. A preassembled lens tube can then be pushed into the white body to complete the process.

Orthographic Views

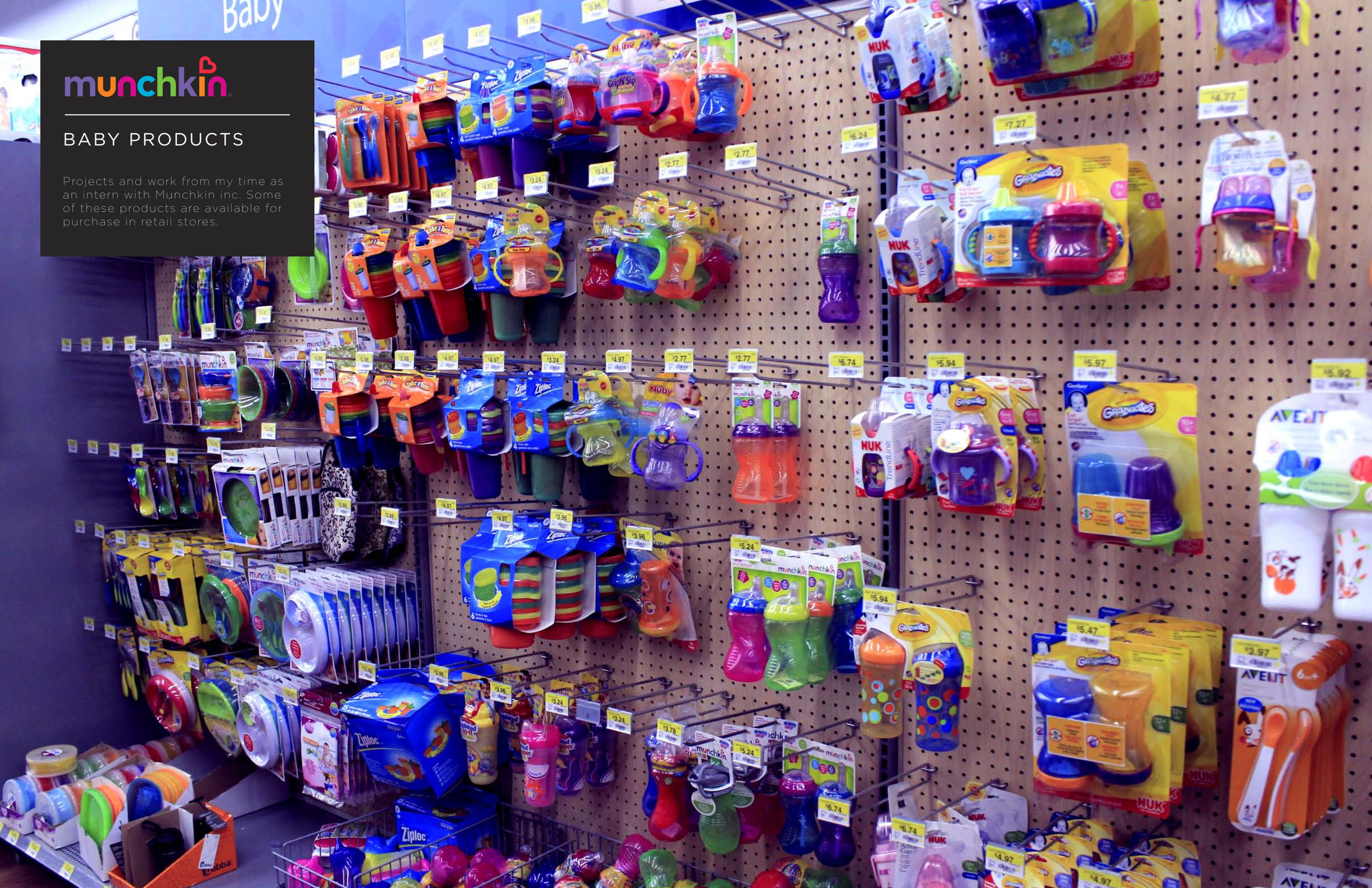


munchkin

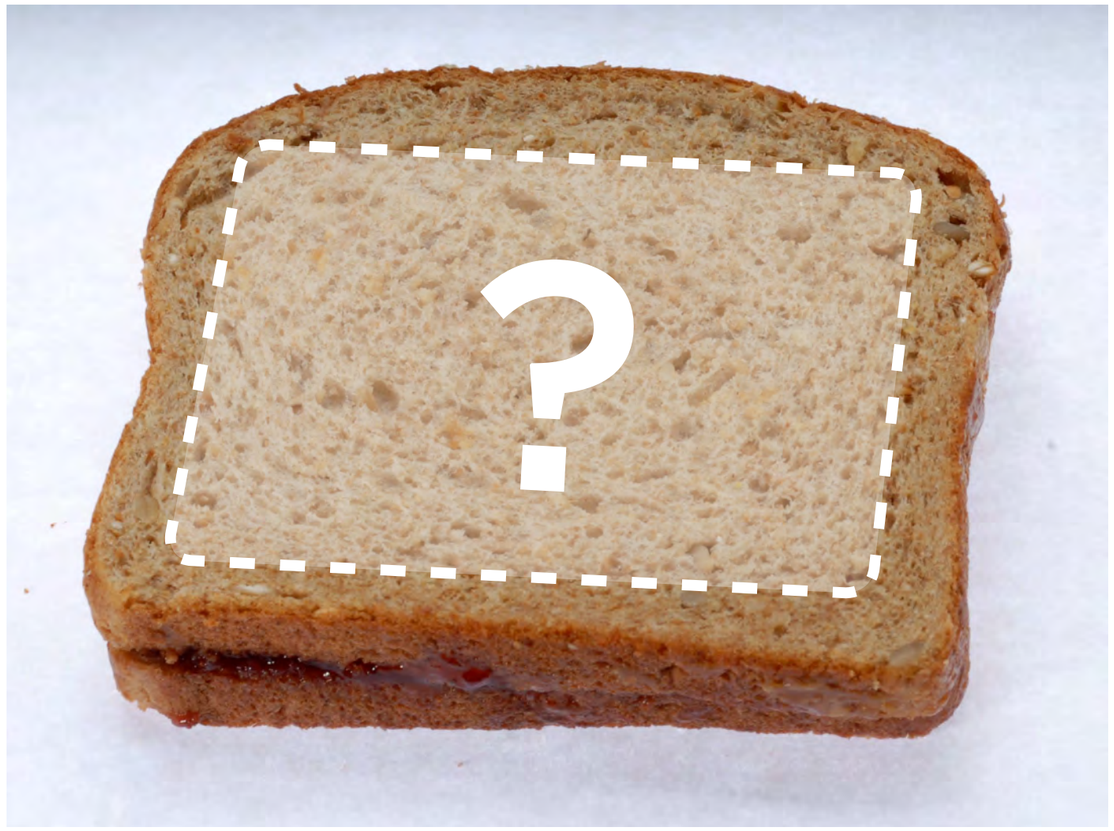
# BABY PRODUCTS

Projects and work from my time as an intern with Munchkin inc. Some of these products are available for purchase in retail stores.



# How can sandwiches be made more appealing?

Many young children stubbornly refuse to eat the crust on a sandwich.  How can sandwiches be made more appealing to them?




## What if the crust was removed?

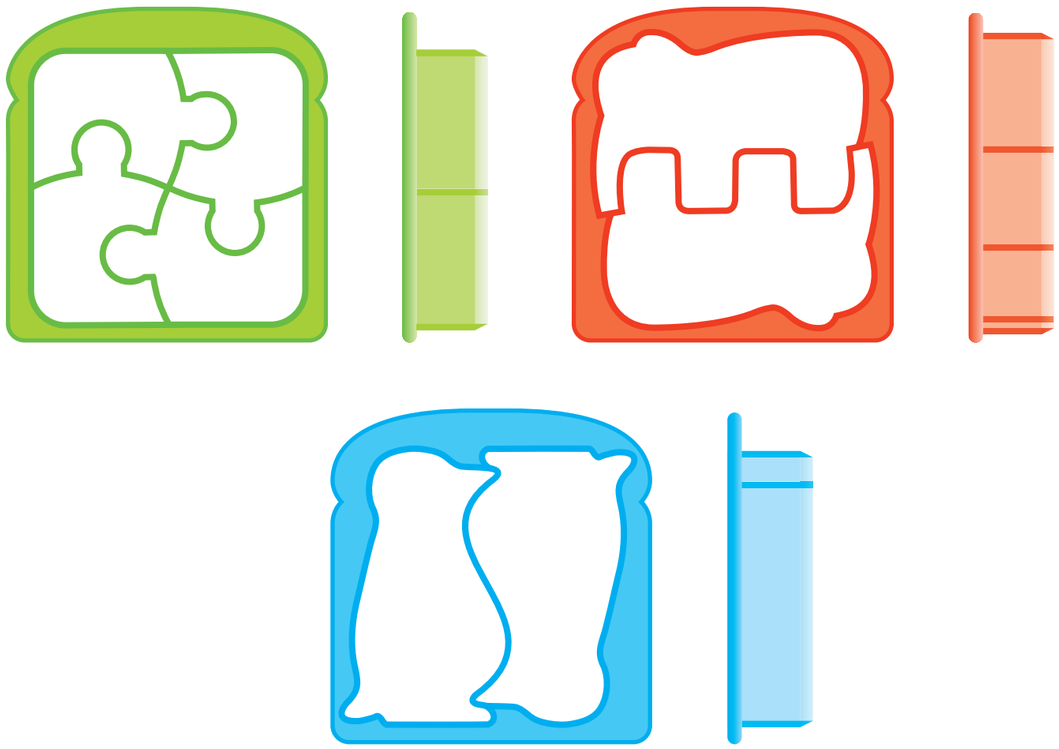
The challenge was to create a simple tool to cut off the crust and create a fun shape children would enjoy, with the restrictions being balancing the scale of the cut pieces with the amount  of bread wasted

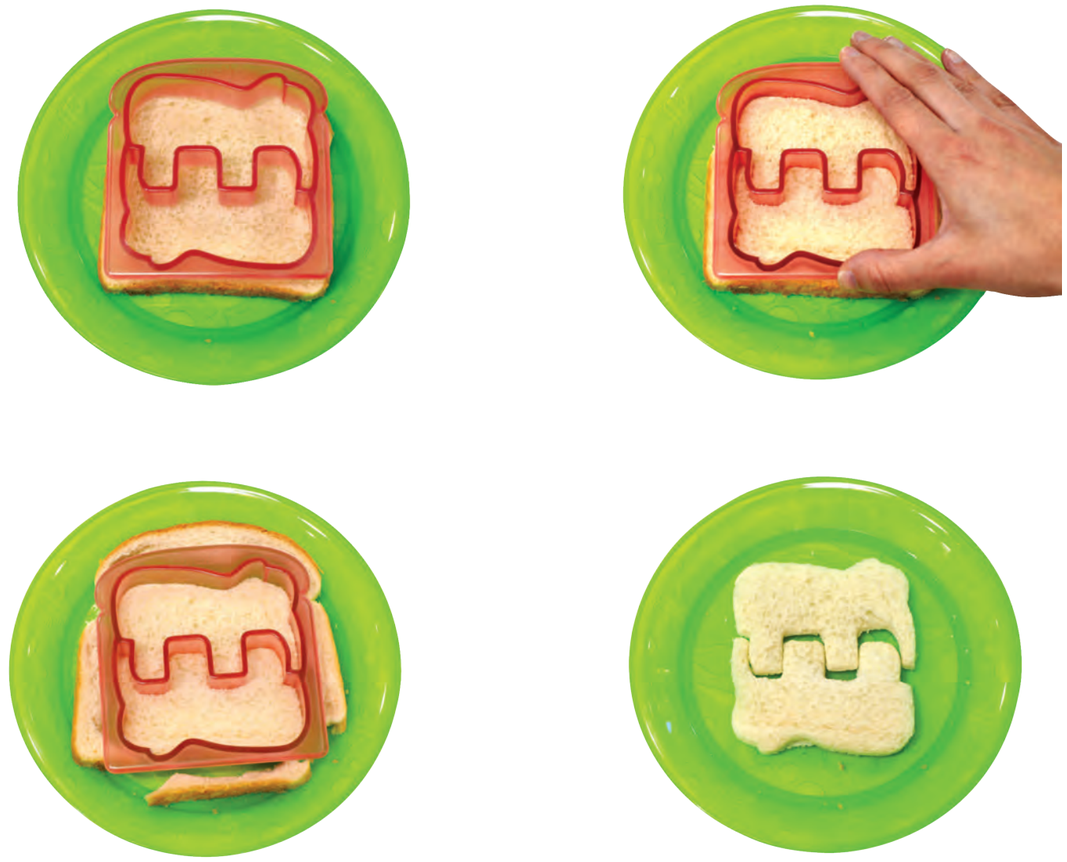
## Exploring the possibilities

Many different ideas ranged from “disguise kits” (with cut out moustaches and sunglasses) and “play kits” (a puzzle of some sort) to animal faces and interlocking animal shapes.

# Design Refinement and Production

At this phase, three concepts were selected by the retailer and chosen to proceed to production.





## Final Designs

The concepts were refined to these final designs- we decided on interlocking animals over “embossed” animal faces, tangrams, and many other ideas due to the minimum bread waste, ease of production, and how easy it was to identify the forms. They will go on sale nationally in May 2011.

## How it Works

To use the Munchkin Silly Sandwich Cutter, simply place on top of the completed sandwich, press, and remove the excess crust.

# On the Shelves

This is the final packaged product, which was originally available exclusively in the baby section of Walmart nationally. It is now available from select online retailers.



# Sandwich Fun

The final cuts are fun to eat, crust free, and easily paired with healthy meals. Online, many reviewers talk about lunches they make for their children using this product.

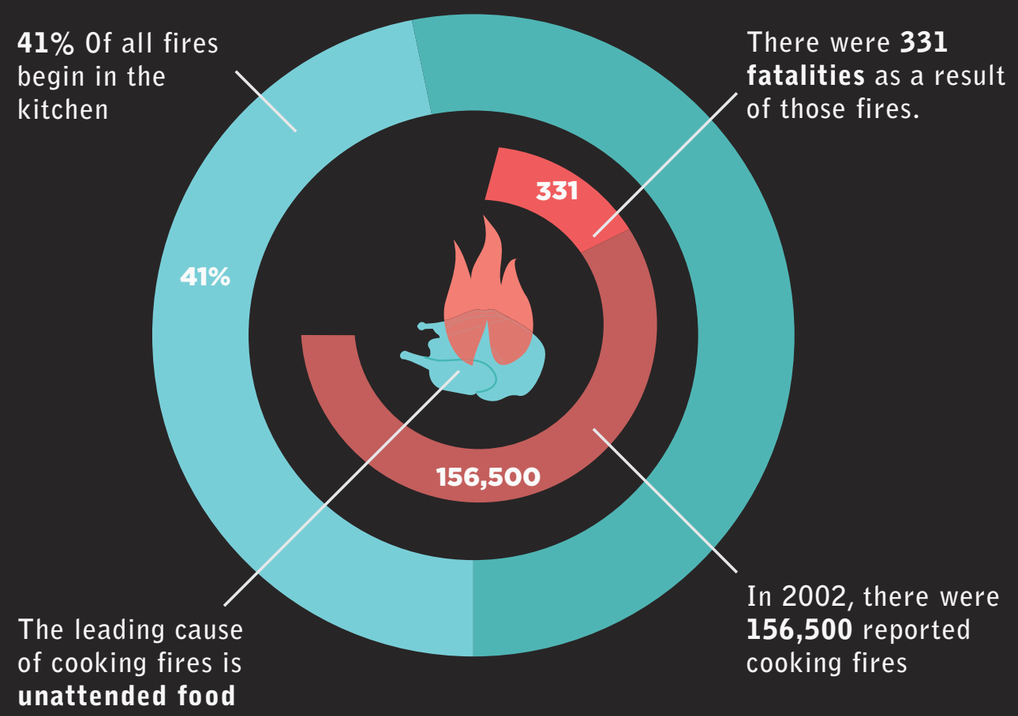
# fireguard

## FIRE EXTINGUISHER

Design of a reusable unintimidating fire extinguisher for the home. Research was a focus of this project to help redefine the role of the fire extinguisher in our houses.

# Why don't people use fire extinguishers?

Many people hide their fire extinguishers under a counter or in the garage, which makes them inaccessible when they needed most. What improvements can be made to  fire extinguishers to encourage their proper use?




**42%**
OF HOMES ARE UNPREPARED

42% of homes do not have a fire extinguisher

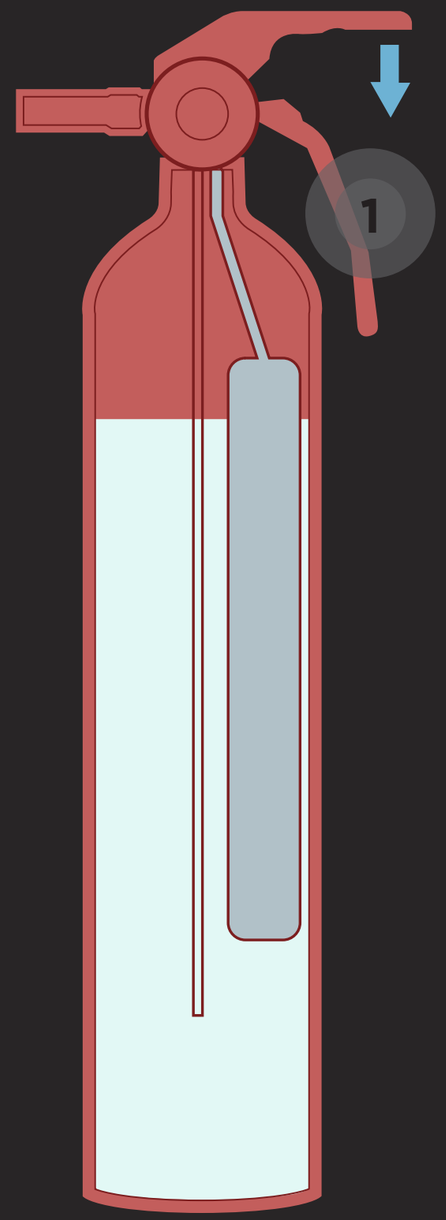
**5 MINUTES**
UNTIL FLAMES FULLY ENGULF A HOME

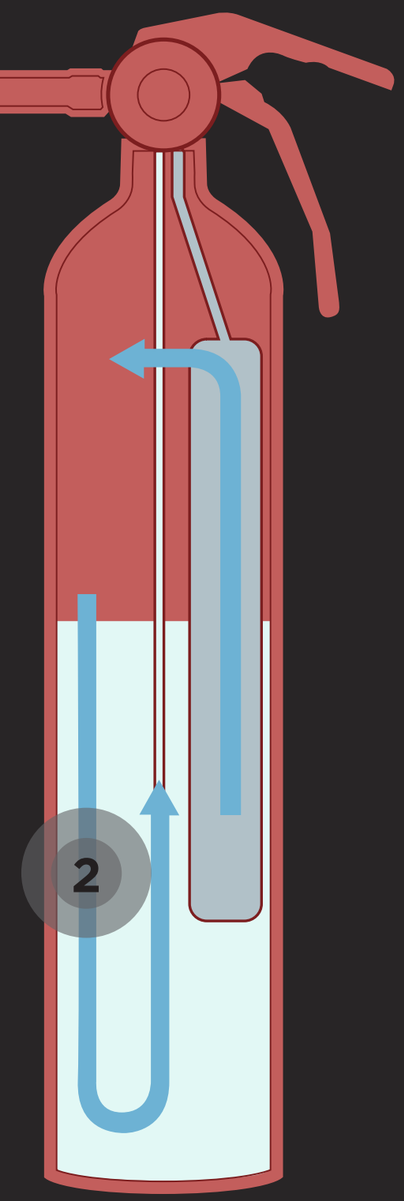
A fire doubles in size every minute

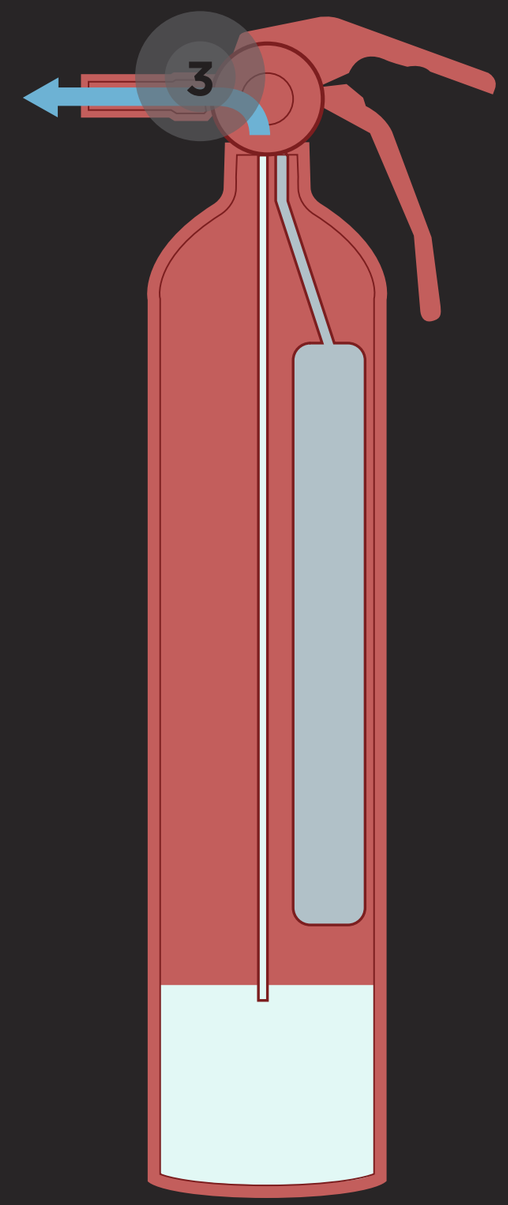
Statistics from U.S. Fire Administration

# How does a fire extinguisher work?

Before redesigning a fire extinguisher, it was key to understand how the current models of fire extinguishers function. They operate on a very simple idea in physics: displacement of a liquid with air.




1

### Handle Press

Depressing the handle causes air in a compressed canister to escape.

2

### $CO_2$ Displacement

This air displaces carbon dioxide powder in the body of the fire extinguisher, pushing it up a straw.

3

### Extinguishing

The straw leads to the nozzle, which is aimed at the base of the fire.

# What needs to change?

I interviewed a number of people, and here are some ideas from the interviews that helped fine tune what needed to be redesigned.


### It's high maintenance and not recyclable.

When is it safe to use? When should the user buy a new one? How can they dispose of the old one?

> "I don't know how long it lasts or when to replace it. "

### The mechanism is confusing.

How is the mechanism activated?

> "I don't get where to begin?"
>
> "I'm afraid I might accidentally set it off."
>
> "Ouch! It pinched me!"

### It doesn't fit in the kitchen.

Where does it fit into someone's house or life?

> "See, the thing is, I don't understand where I'm supposed to actually put it! There's no room in my kitchen and if it's in the garage it's too far in case of an emergency."
>
> "I keep mine under the sink. It looks ugly."

# Design Goals

Finding problems with current fire extinguishers allowed me to established set goals to design around.

**The fire extinguisher should be easy to recycle.**

**The activation motion should feel less intimidating**

**The fire extinguisher's aesthetics should be modernized.**

# Design Ideation

These are the initial ideation sketches done to find a direction to explore. The final direction was an integrated flip handle, where the activation mechanism is the opening of the handle.

## Thumb Trigger

These directions involved using your thumb to launch the actual extinguishing fluid.

## Slide and Twist

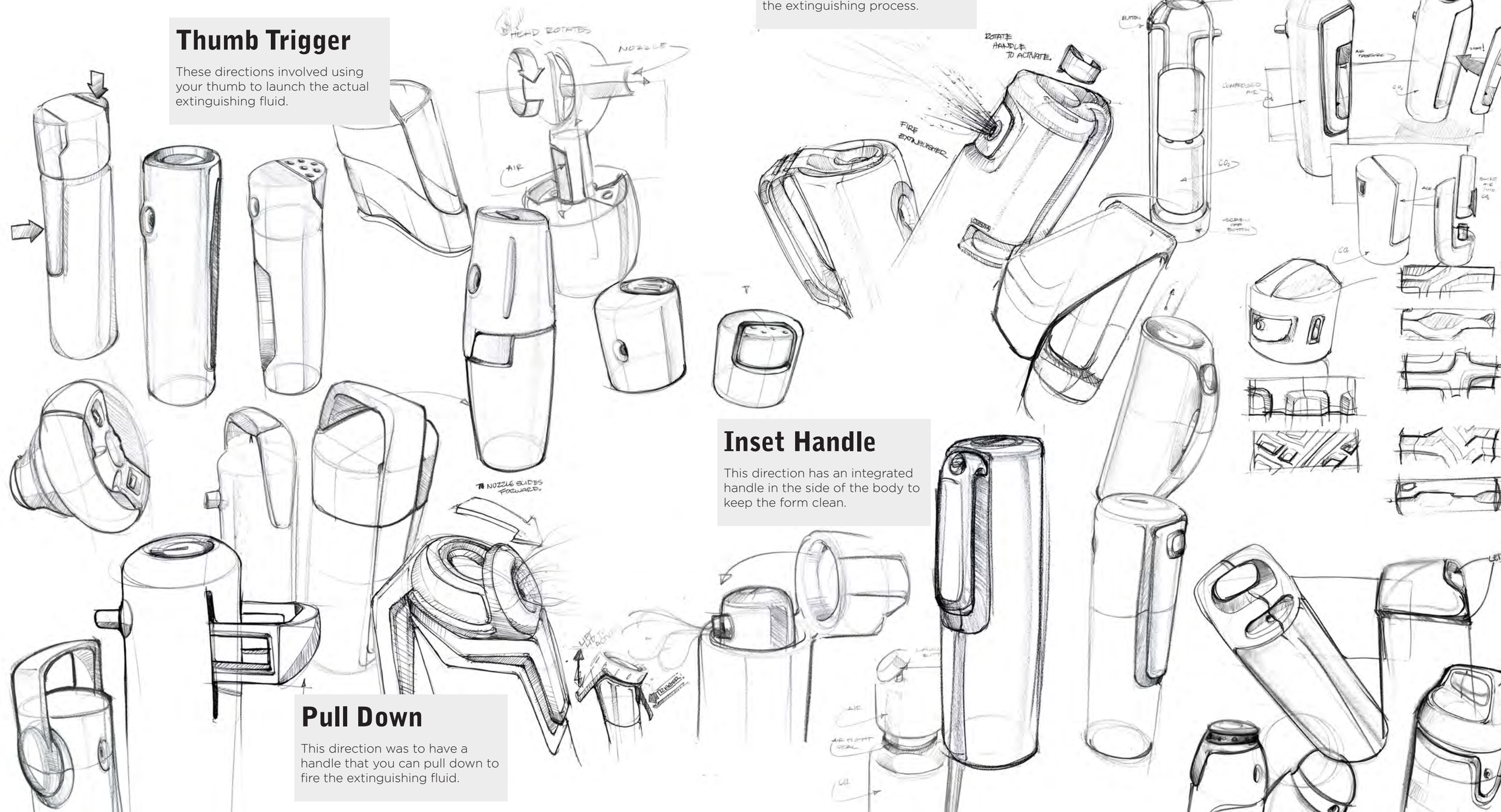
These directions had slide or twist activation methods to start the extinguishing process.

## Inset Handle

This direction has an integrated handle in the side of the body to keep the form clean.

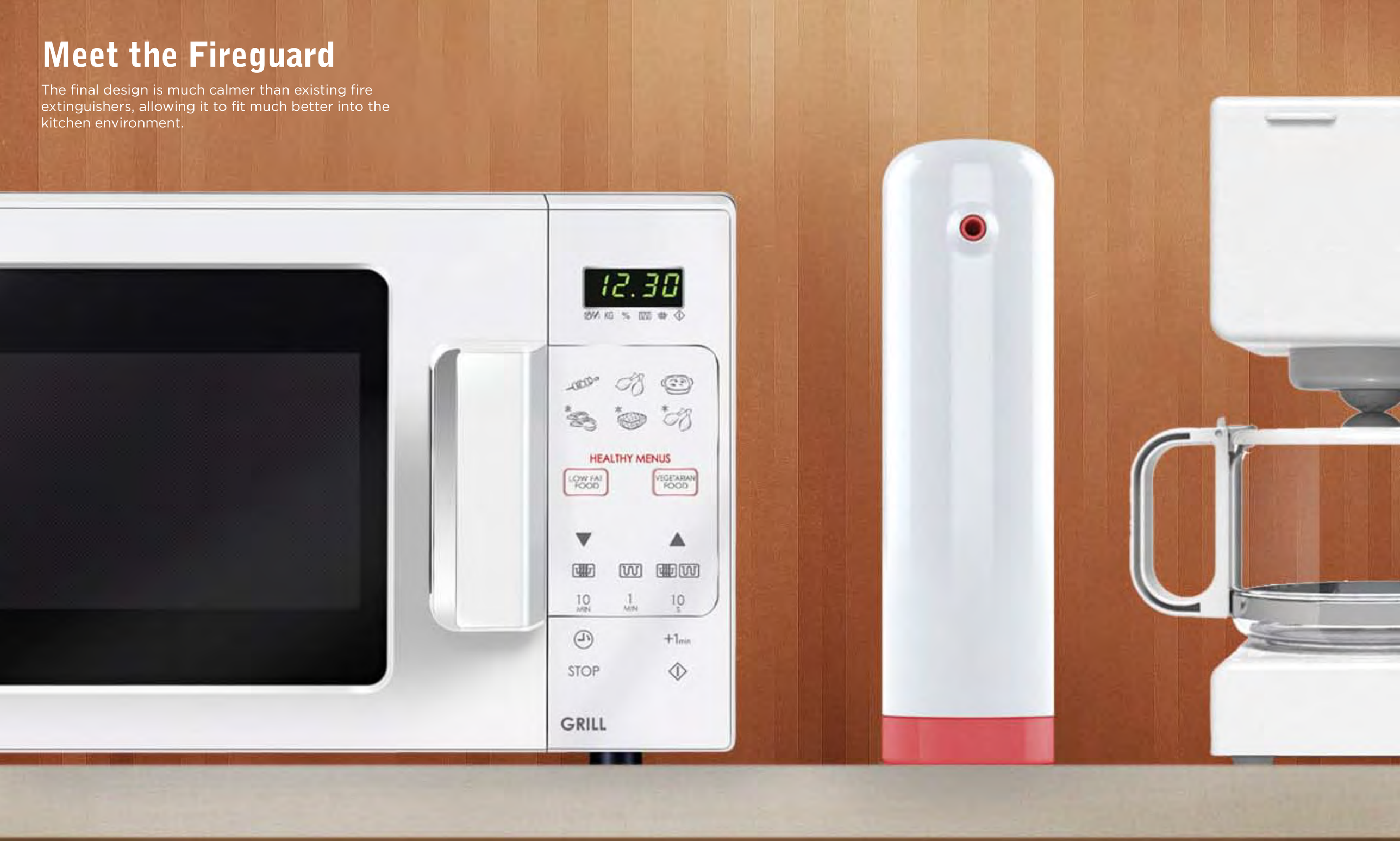
## Pull Down

This direction was to have a handle that you can pull down to fire the extinguishing fluid.



# Meet the Fireguard

The final design is much calmer than existing fire extinguishers, allowing it to fit much better into the kitchen environment.



# Zen Inspired

The Fireguard is beautifully and intuitively simple, crafted to be a pure cylinder.

## Step 1

The Fireguard is locked in this position so that it can sit inert on a counter or in a drawer.

## Step 2

The Fireguard is activated by lifting the handle. The handle snaps into place, and the nozzle is pushed out.

## Step 3

Keep an eye on the air level as you fight a fire- the gauge is now on top of the fire extinguisher instead of the side.

### Cam Gear

A Cam gear pushes out the nozzle and the activation tube as the handle is rotated.

### Compressed Air

The compressed air is activated by the cam, which pushes a tube through this canister and into the Carbon Dioxide.

### Carbon Dioxide

The carbon dioxide canister is on the bottom to help with balance.

### Removable Bottom

The cap on the bottom is removable to allow easy access to the two canisters for recycling.

**Activation Button**

**Pressure Gauge**

**Grip Base**

**Tucked in Handle**

## Designed for Disassembly

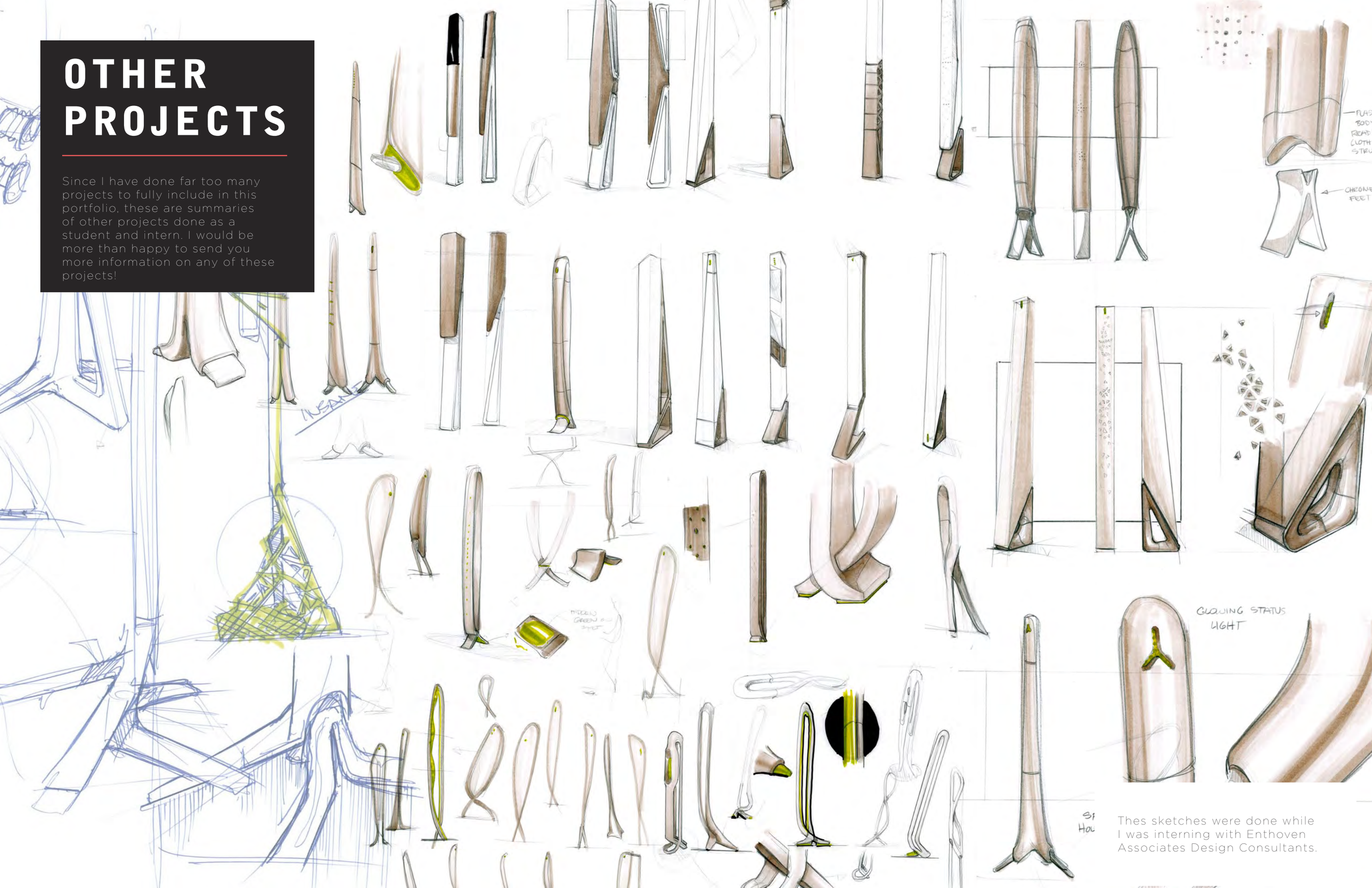
The Fireguard was designed to be reusable, as you no longer need to throw out a fire extinguisher every time it is used, or if the air runs out- simply replace the canisters.

## Pure Simplicity

The Fireguard is ridiculously easy to understand. The Handle pulls out and the button launches the carbon dioxide.

# OTHER PROJECTS

Since I have done far too many projects to fully include in this portfolio, these are summaries of other projects done as a student and intern. I would be more than happy to send you more information on any of these projects!




Thes sketches were done while I was interning with Enthoven Associates Design Consultants.

# UPS DIAD

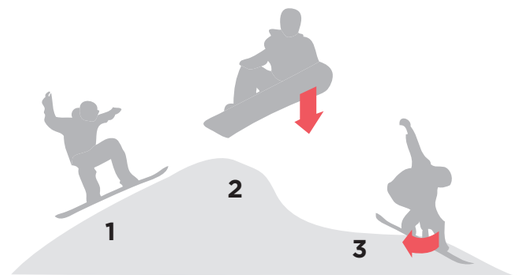
## DELIVERY INFORMATION ACQUISITION DEVICE

Redesiging the device UPS deliverymen use on a daily basis. Interviews and in-depth research began the project, which finished with a brand new take on the DIAD.

# meta liner

## PROTECTIVE LINER FOR SNOWBOADING

This research-based project was done in collaboration with a physical therapist- the concept is that a brace is integrated into a snowboard boot liner to prevent ankle injuries.

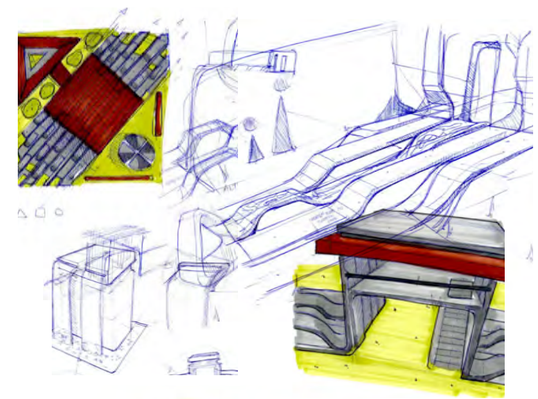


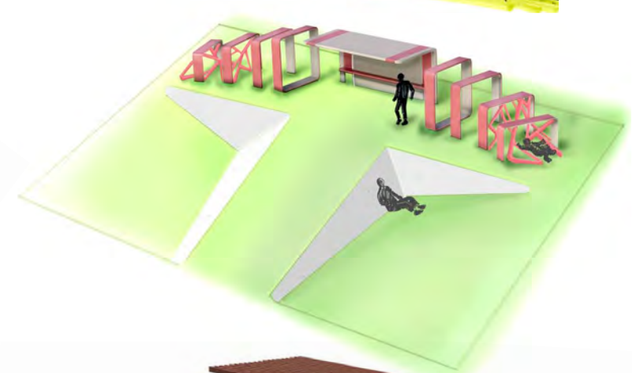


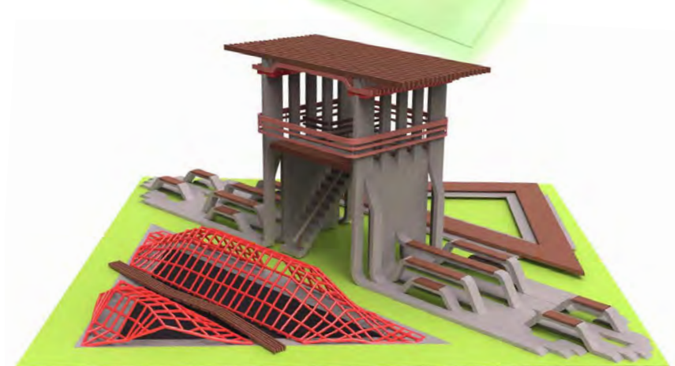
# reconstruct

## ISHINOMAKI PLAYGROUND

This playground was done as a group project for a city in Japan which was destroyed by the 2011 tsunami. One design was selected from our class to be made.



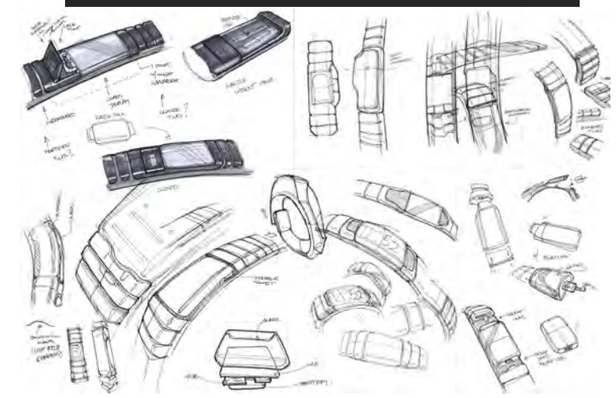


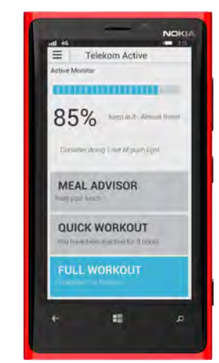


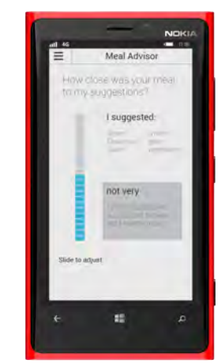
# TELEKOM ACTIVE

## LIFESTYLE ACTIVITY MONITORING SYSTEM

This project was done in Germany as a sponsored class for Deutsche Telekom, and is an excersize aid to help people get in shape, track their lifestyle, and improve their health.



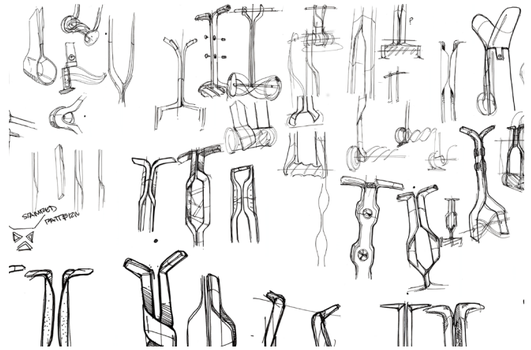


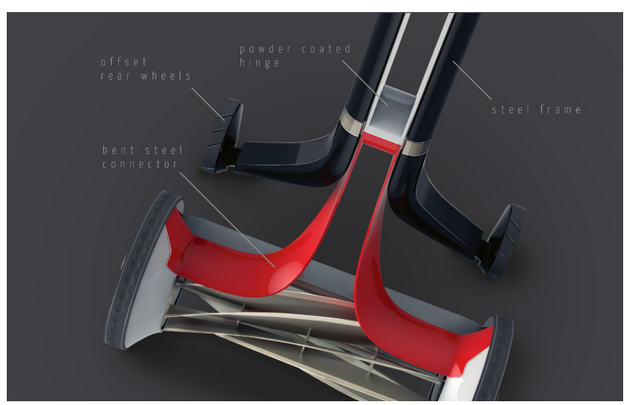




# TOTEM

## REEL LAWN MOWER

The Totem Mower is a reel mower based around the aesthetic ideas of Totem Poles- called Ominous Quirk. This resulted in a clean, yet complex design that folds for storage.


# TOUCH

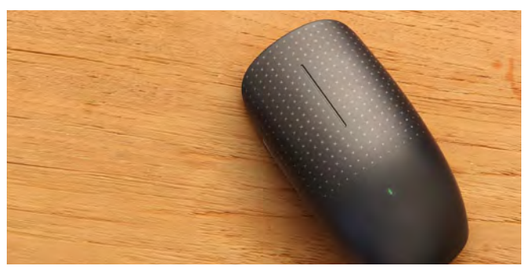
## PRINTER FOR EDUCATION

The Touch Printer was completed for a studio sponsored by Samsung. It addresses key issues students had, with the overarching goal of giving complete control of prints.


## Carbon Design Group™

### PRODUCT PHOTOS

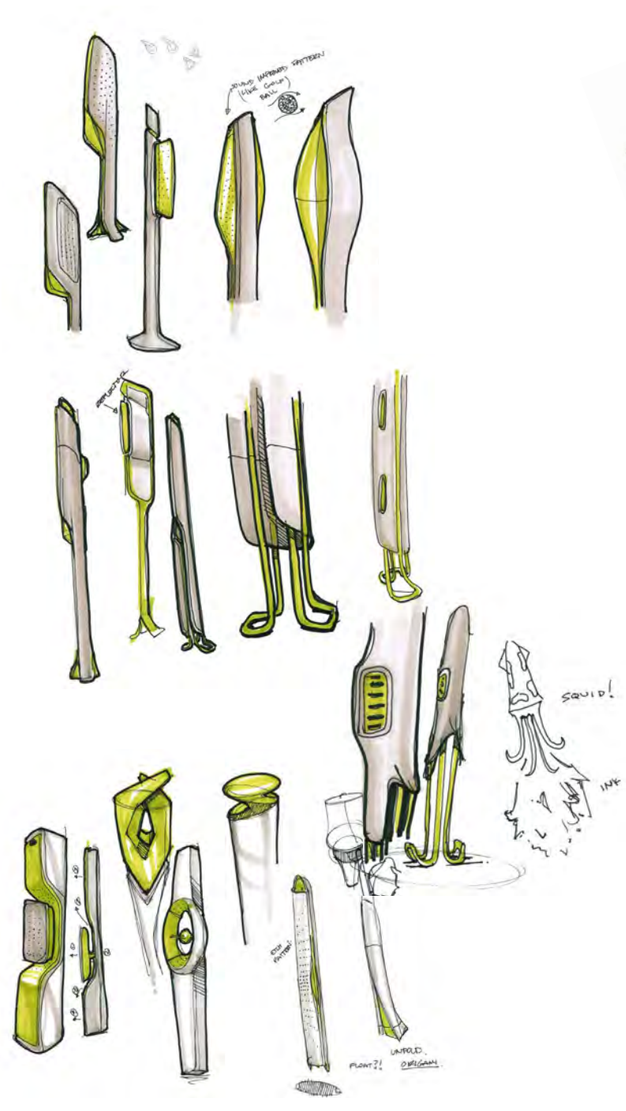
Below are photoshoots I worked on at Carbon while I was interning there. They are viewable at www.carbondesign.com



## enthoven associates *design consultants*

### SKETCHES

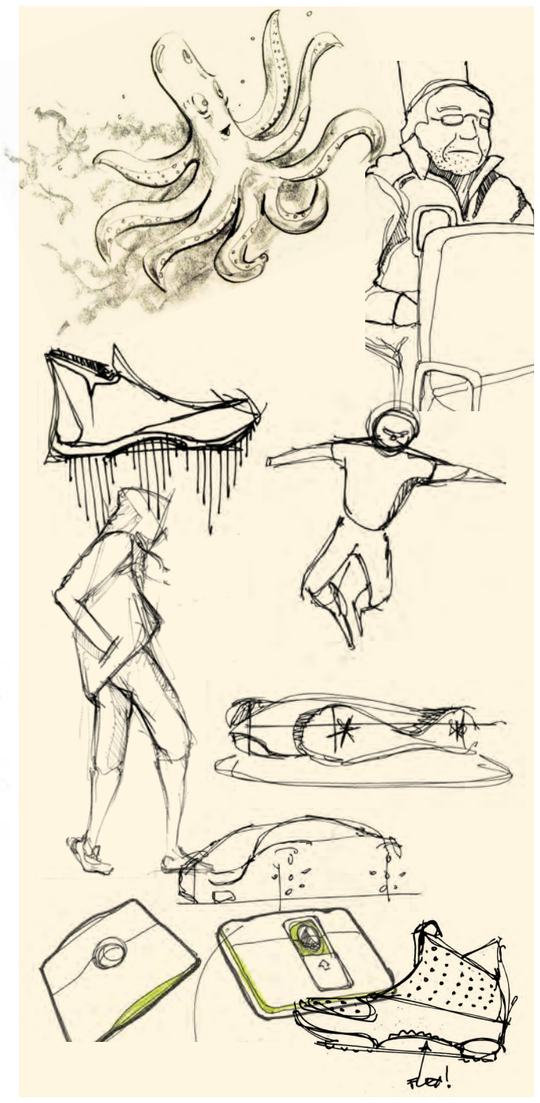
These are sketches done for a client while I was interning with Enthoven Associates Design Consultants.




## MOLSKINE SCANS

### SKETCHBOOK

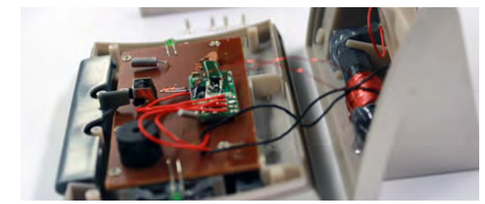
These are sketches from my sketchbook and from various projects.

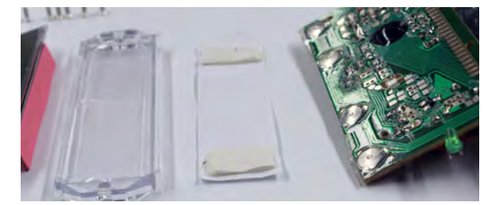


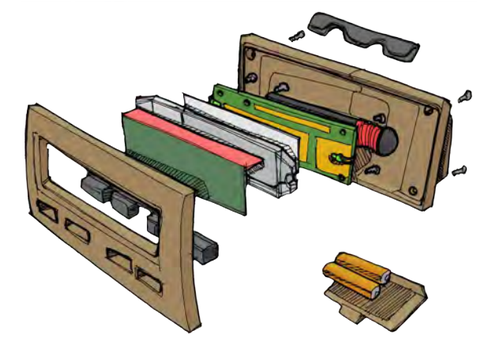

## ALARM CLOCK

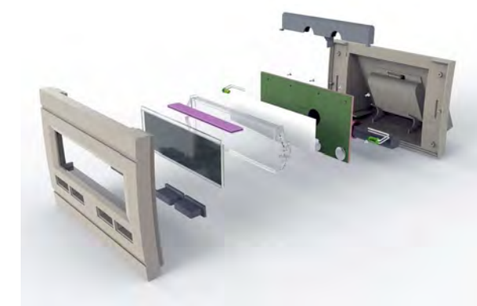
### DISASSEMBLY

A projcet to disassemble and better understand how cheap products are made. An exact solidworks copy was made at the end to learn about design for manufacturing.









# THANK YOU FOR YOUR TIME!

Jon Grossman

I look forward to hearing from you soon!

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email: jonoj2g@gmail.com