

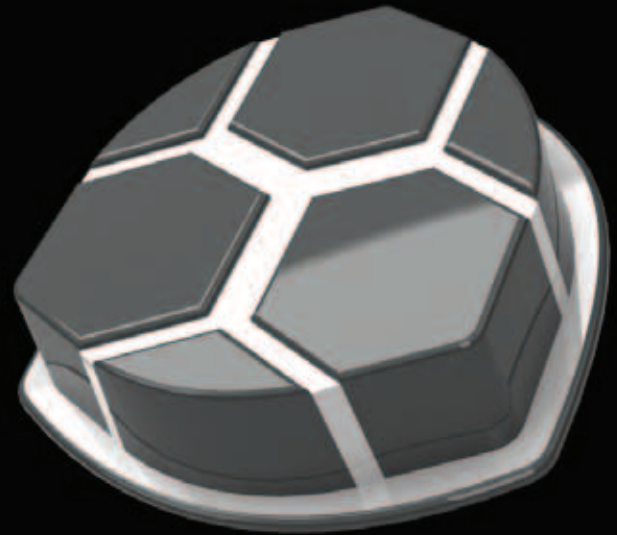


DanDeMarsDesign

## Hexalin Insulin System

A combination of a 5 day\* insulin delivery system, with a transdermal continuous glucose monitoring system. Together, an unbeatable duo in the fight against Diabetes.

\* 5 day average use



3

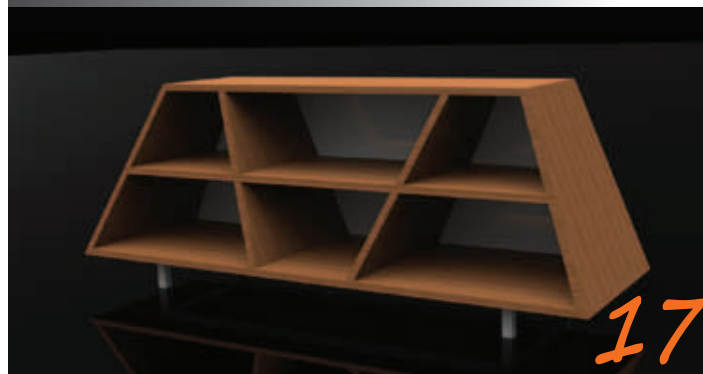
## MNML highchair

From concept to production, this flat-folding, feature-packed highchair has everything parents want!

7



## FEATURE



17

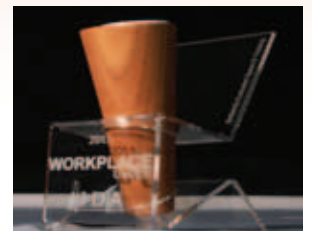
## Entertainment Console

Creating a new wave of furniture designed to house today's technology is a concept sweeping the design world, and this new console is a prime example of it.

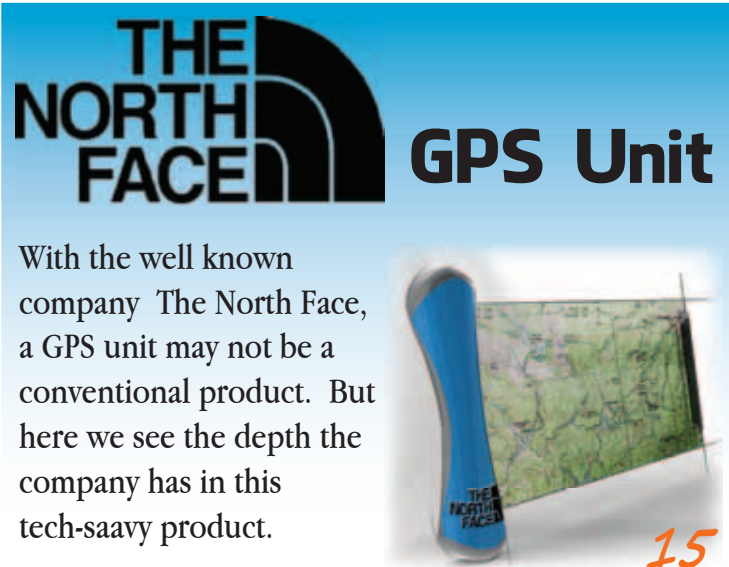
## BEST trophy

The making the "anti-trophy" for the men and women of IIDA and their glamorous BEST Awards held here in Denver.

13



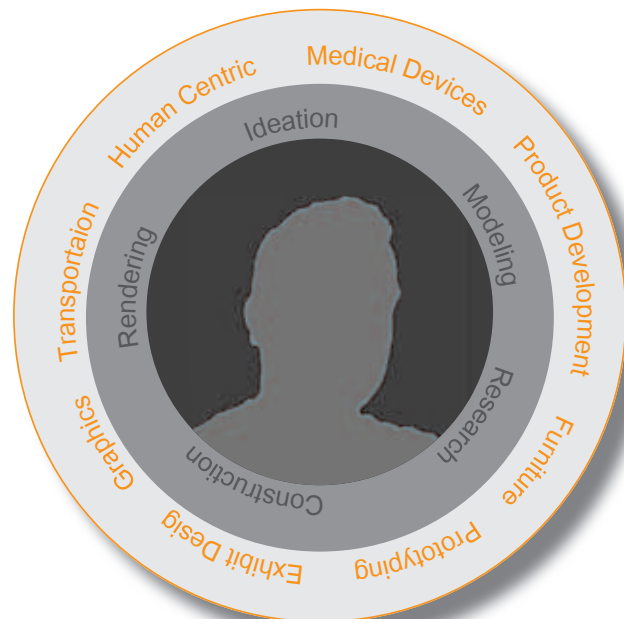
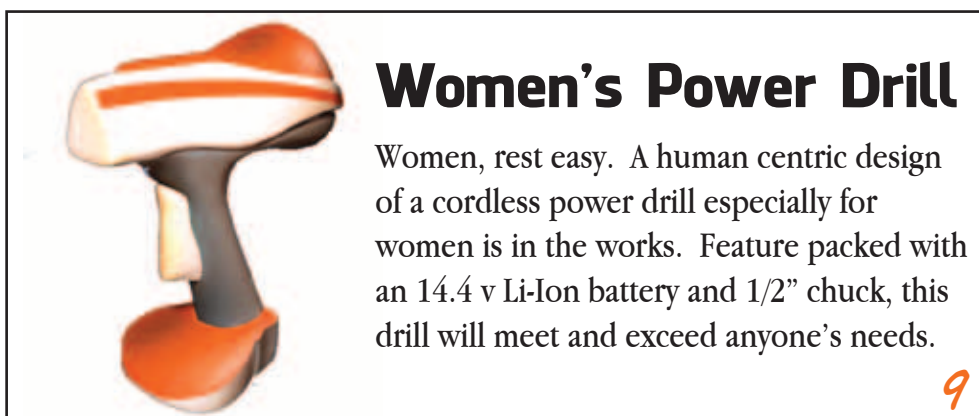




**THE NORTH FACE GPS Unit**

With the well known company The North Face, a GPS unit may not be a conventional product. But here we see the depth the company has in this tech-saavy product.

15

**Women's Power Drill**

Women, rest easy. A human centric design of a cordless power drill especially for women is in the works. Feature packed with an 14.4 v Li-Ion battery and 1/2" chuck, this drill will meet and exceed anyone's needs.

9



## Children's Convertible Desk

How can we lower the footprint of furniture but add to the number of configurations? I can tell you the solution to children's furniture is here.

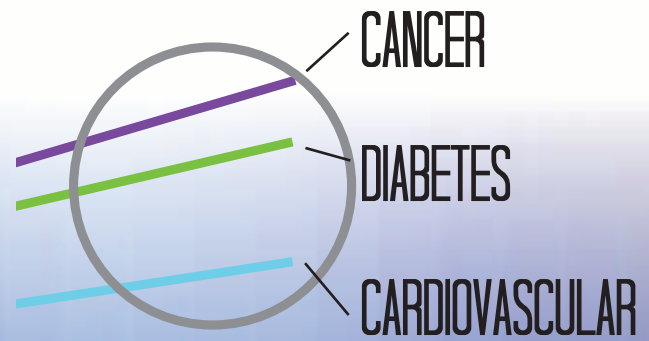
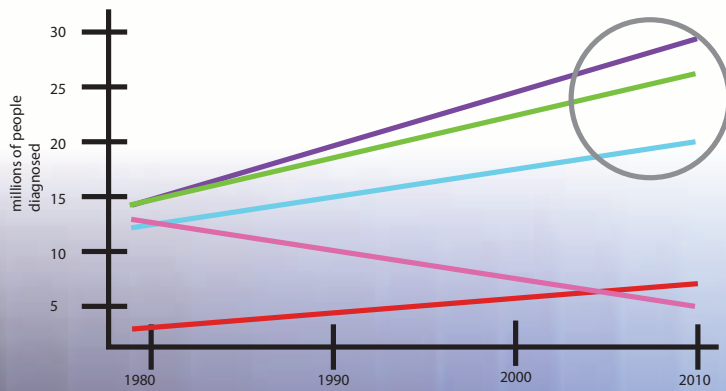


## About the Editor

*Name:*  
Dan De Mars

*Birth Place:*  
Fort Wayne, IN

*Skills:*  
Research  
Hand Sketching  
3D Modeling  
Digital Rendering  
Prototyping  
Results



36% of US population\*

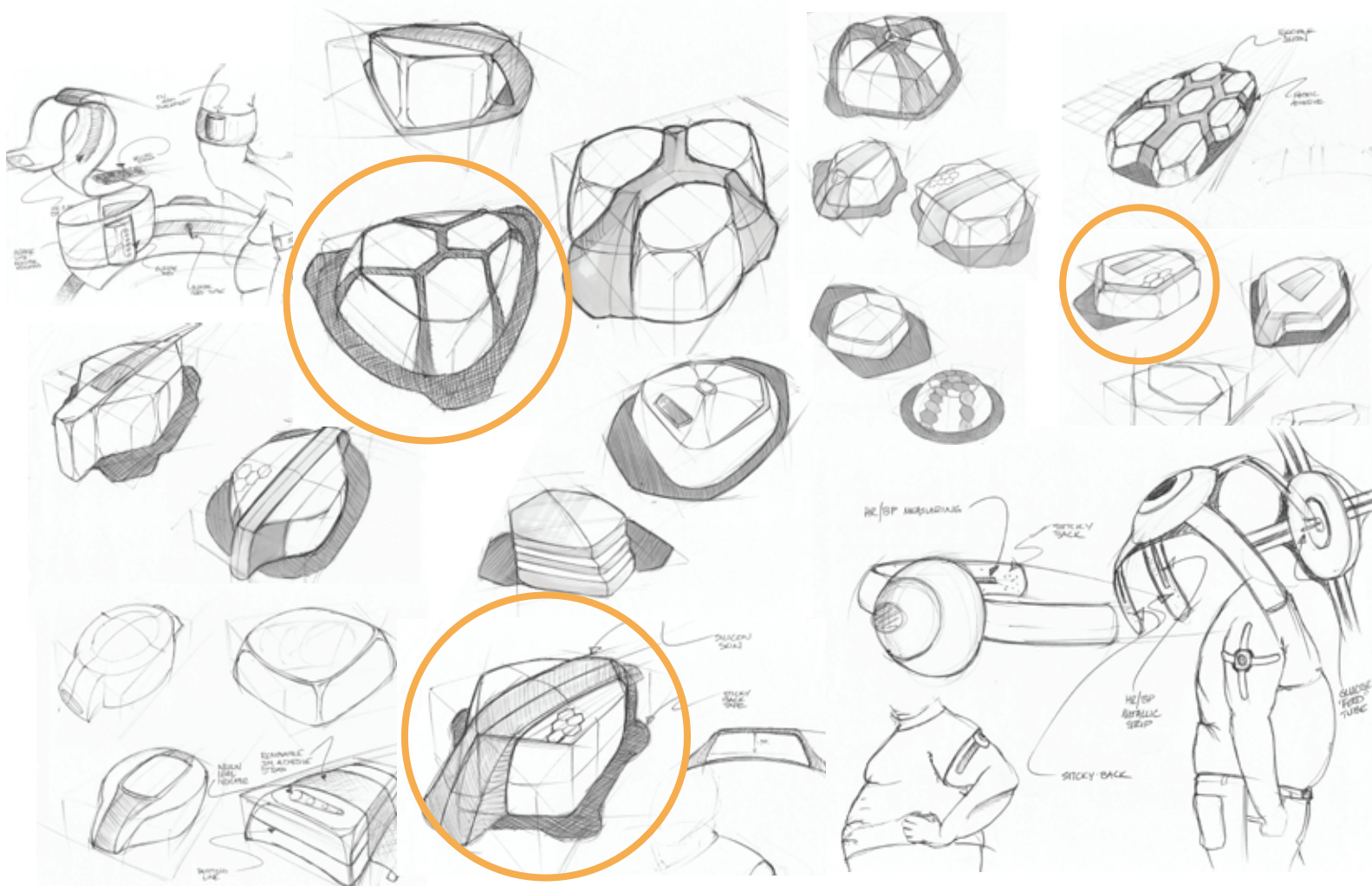
79 million prediabetic (25.4%)\*

\* facts from American Diabetes Association

25.8 million diagnosed (8.3%)\*

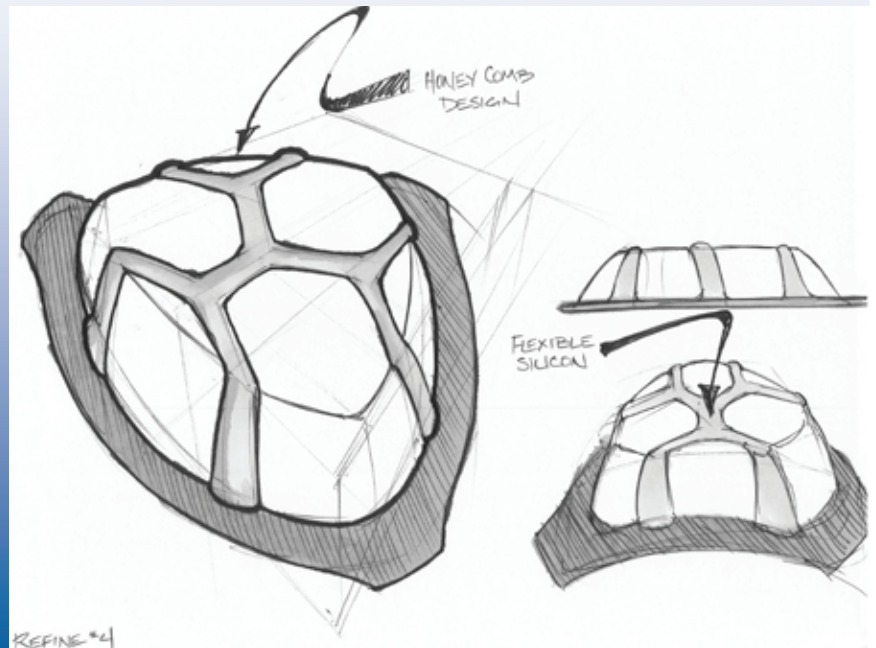
7.0 million undiagnosed (2.3%)\*

Given the growing trend of diabetes in the United States, a new **insulin delivery system** and continuous glucose monitor is needed to coincide with the **active lifestyles** of today's average person. As we are an on-demand society, combining a continuous glucose monitor with an insulin delivery system in a **single device**, as well as adding **real-time uploading capabilities** and **bluetooth** technology, a solution will fit the desired needs of current and future diabetic patients.

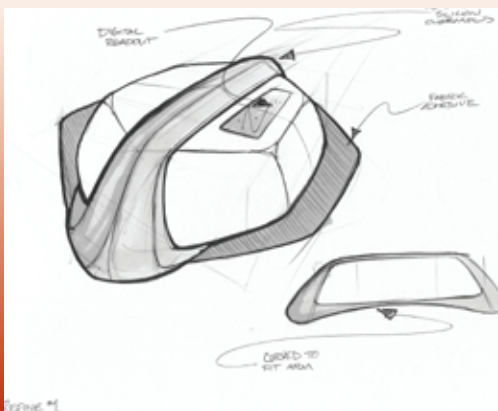




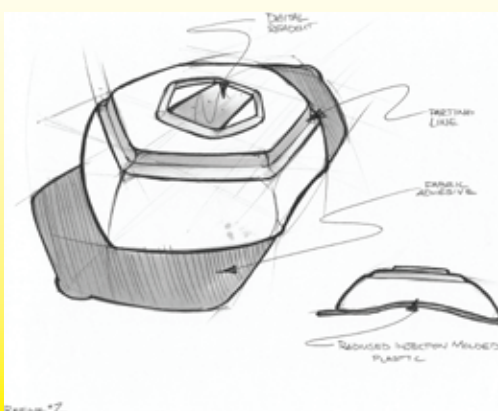
## USER 1 – 34 YEAR OLD MALE – 15.5" ARM



## USER 2 – 17 YEAR OLD FEMALE – 8" ARM



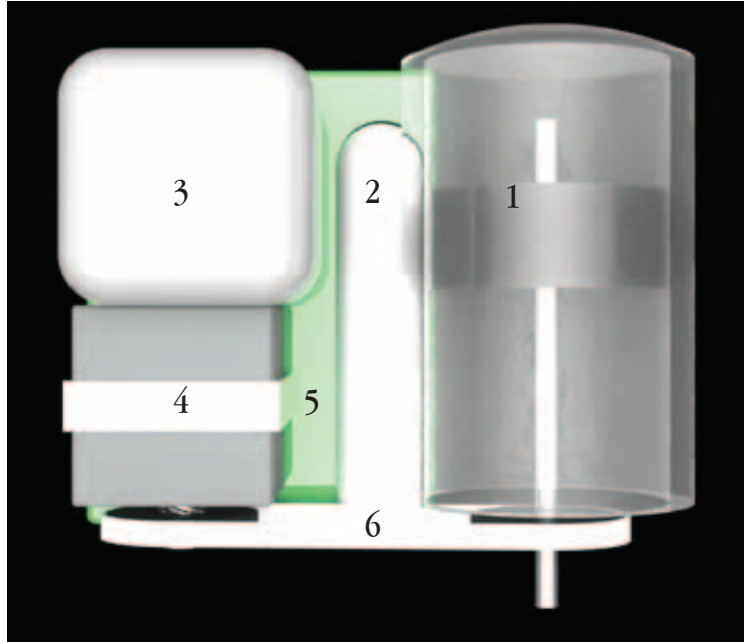
## USER 3 – 26 YEAR OLD MALE – 11.25" ARM



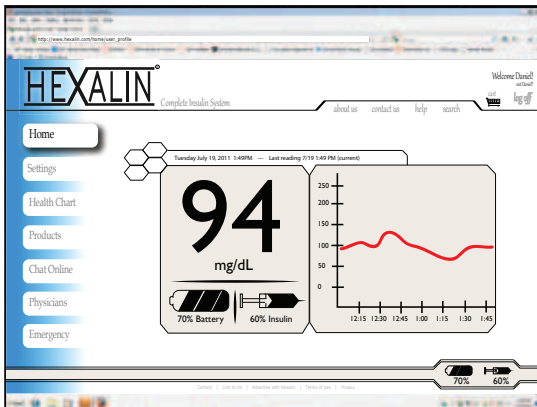
Three potential consumers are shown here to portray the different refined sketches and study models used in the concept selection process. The **aesthetic** appeal of **user 1's** model was the most liked. **User 3's** model was deemed as the **most comfortable** because of its **curved nature** and general size. A combination of a **flexible silicon** and **curved bottom** will be integrated into the **alpha prototype**. Given the results of the user testing and aesthetic selection, the alpha prototype will be consistent with the aesthetics seen in the refined sketch of user 1 but consumers were very interested in **color and material** samples. The overall size of the shell will be mainly determined by the inner-workings of the insulin pump and transdermal meter.



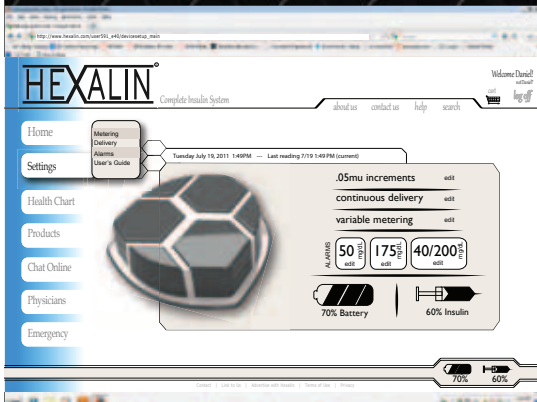
On the left you can see the color samples chosen for the Hexalin Insulin System. The larger image shows a nude model for the discrete consumer. From left to right, white with orange, nude with blue



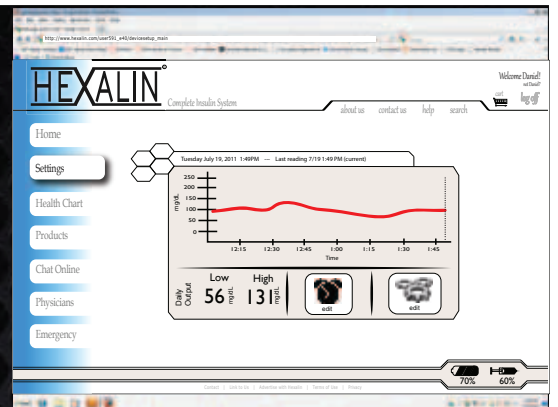
and gray with green. On the right you can see the mechanics of the device without the shell. Parts include, reservoir and plunger<sup>1</sup>, spring loaded cannula<sup>2</sup>, bluetooth and battery housing<sup>3</sup>, stepper motor<sup>4</sup>, custom computer chip<sup>5</sup>, and gears with drive belt<sup>6</sup>. This configuration is feature packed (i.e. .05mu insuling delivery, real-time bluetooth uploading, etc.) and all in a small package. The reservoir is rated to hold a total of 300mu which lets the average user go up to 5 days\* before a refill.



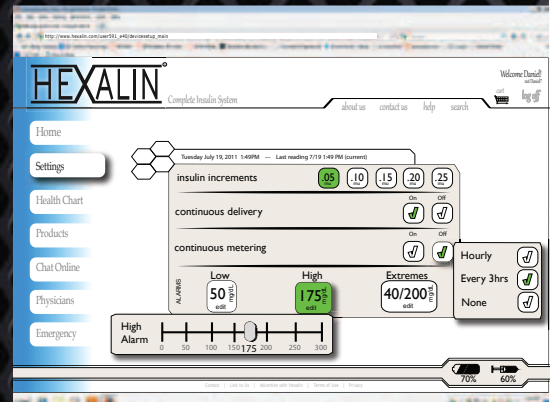
HOME SCREEN



SETTINGS SCREEN



HOME SECONDARY SCREEN




SETTINGS CONFIGURATIONS SCREEN

\* 5 days is average use





A smiling woman with blonde hair is carrying a young child on her back. The woman is wearing a light blue tank top and jeans. The child is wearing a pink patterned shirt and blue overalls. A glucose monitor is visible on the woman's upper arm. The background is a bright, sunny outdoor setting, possibly a beach or park.

Don't let  
diabetes  
slow you  
down!

**HEXALIN**  
*Complete Insulin System*

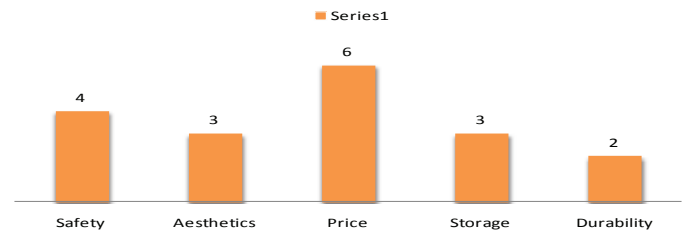
# Mission Statement

Create a **minimalist** highchair that has a strong **modern aesthetic**, quality and safety, but **reduce** product **cost** to fit in the market with a retail price **under \$100.00**.

## Requirements

1. maintain a minimal footprint
2. use common, inexpensive materials
3. maintain high integrity and safety
4. have an MSRP of \$100 or less
5. strong, modern aesthetic appeal

Feature Importance



Prices Paid



18 parents were surveyed  
Hierarchy of needs:

- Price
- Safety
- Aesthetics
- Storage
- Durability

## Market Comparables

low price range



mid price range



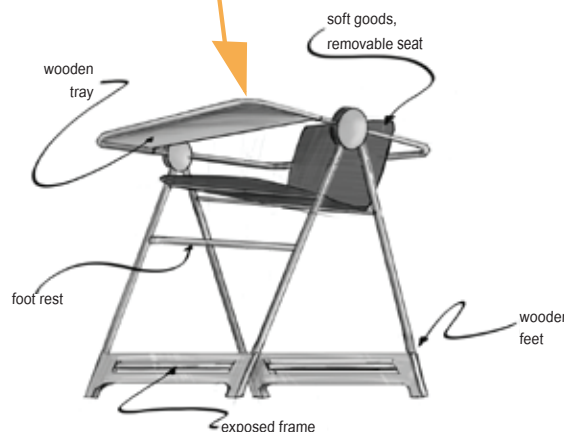
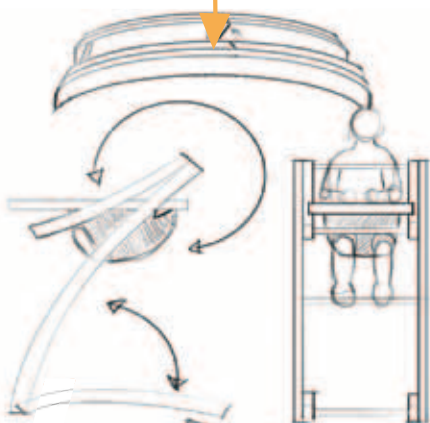
high price range



initial ideation

refined concept sketch

final hand rendering





# FEATURES



CNC routed tray inlay

Removable slip cover  
seat with side &  
submarine supports

Food grade  
walnut oil finish

Stack laminated  
feet and hinges

Side profile shows  
the high chair  
collapsed into a very  
slim shape which  
provides easy storage  
in the smallest of  
places

Machine-washable  
slip covered seat with  
velcro attachments  
for easy removing  
and cleaning



## FINAL MODEL SHOTS



## Objective

Create a new power hand drill designed for women, yet appealing to both genders.

## Lead User

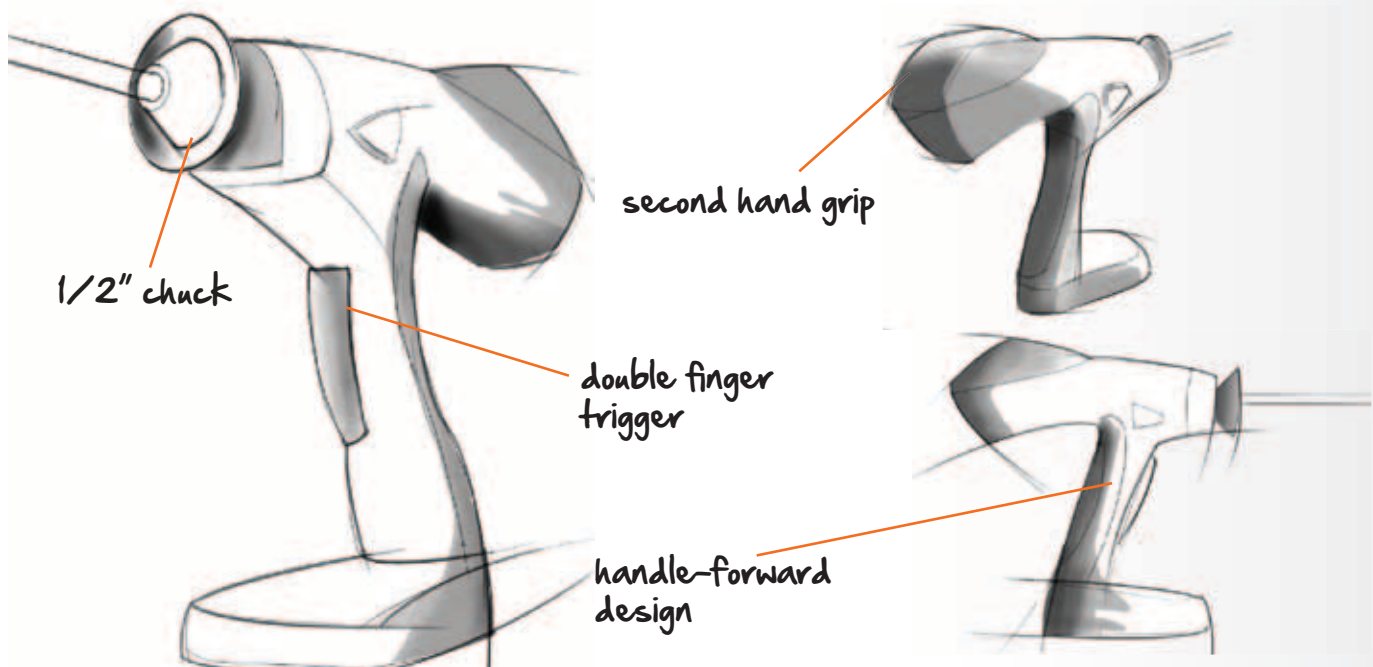
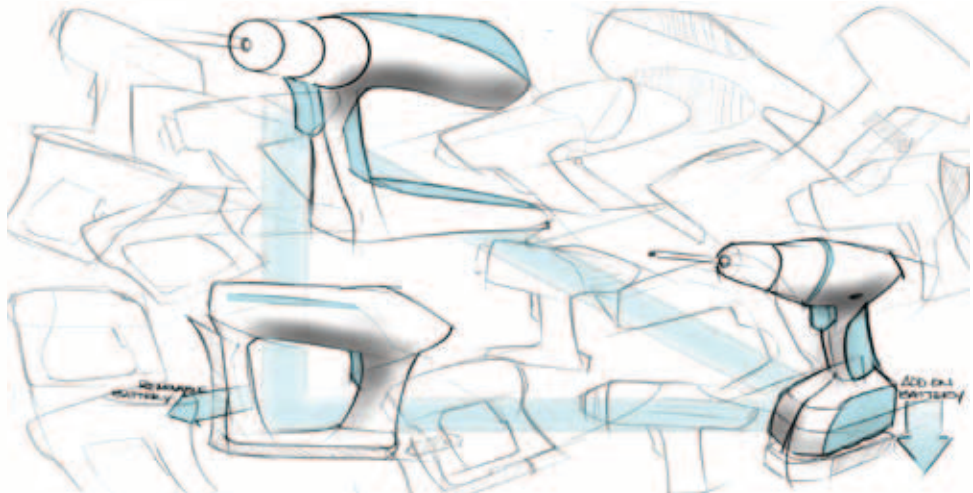
- Jenny - 31 year old female
- Undergoing home renovations

## Needs

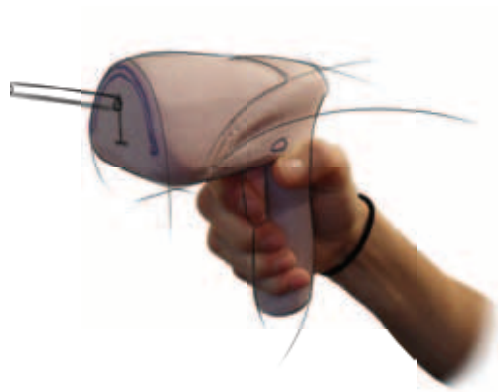
- 14.4 volt or higher
- Under \$150
- Easy to use
- Ability to stand up alone

## Comparables

- Makita - \$199.99
- Dewalt - \$199.00
- Milwaukee - \$149.99
- Ryobi - \$79.00

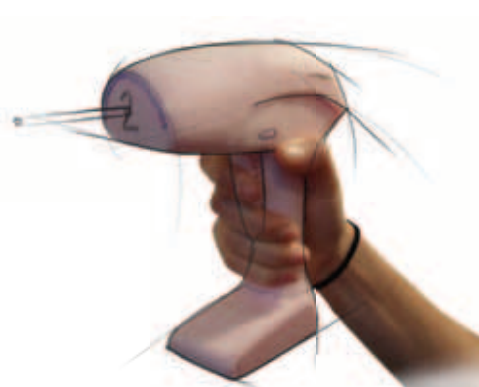






## Pros

- 2 finger trigger
- battery ejection



## Pros

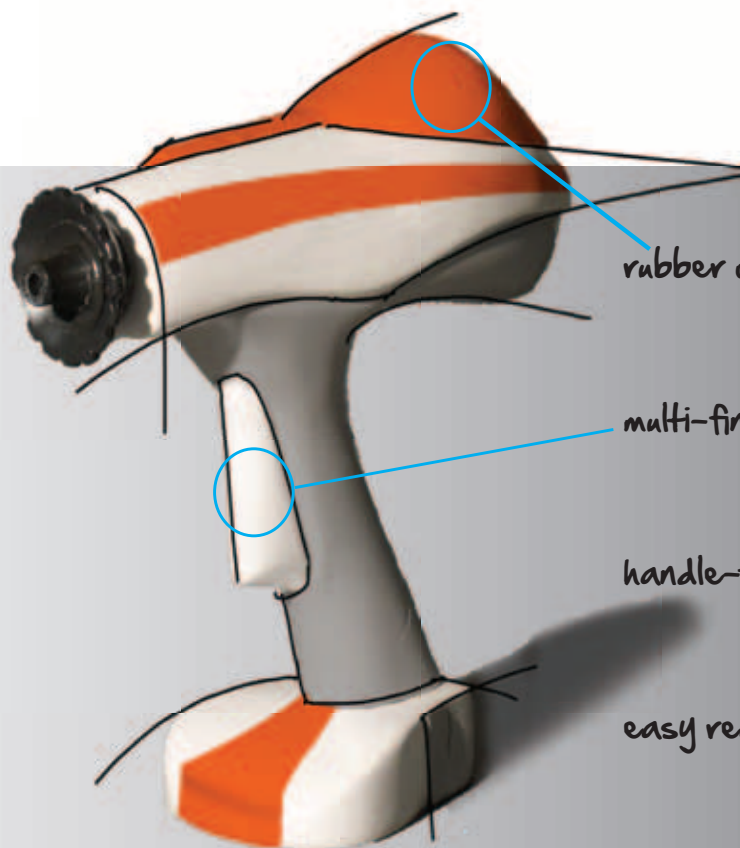
- off hand grip
- familiar design



## Pros:

- great balance
- innovative handle

## Color Studies

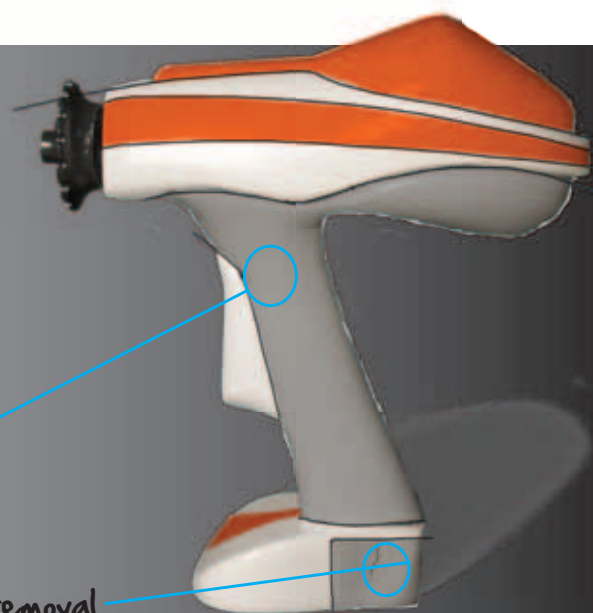


rubber overmold

multi-finger trigger

handle-forward

easy reach battery removal



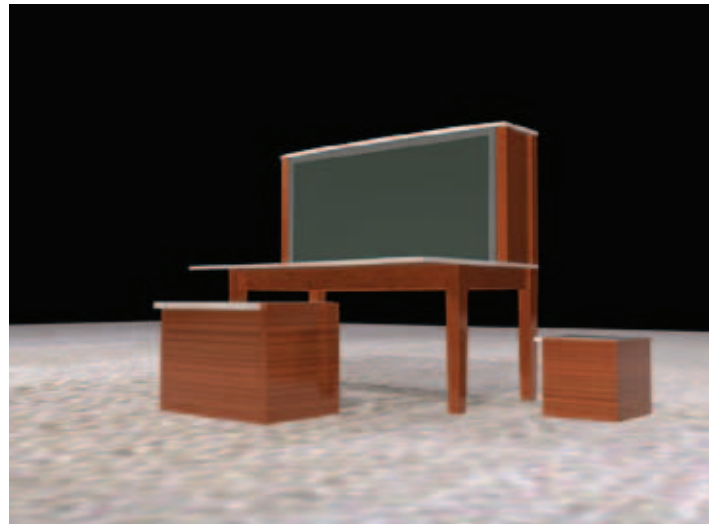
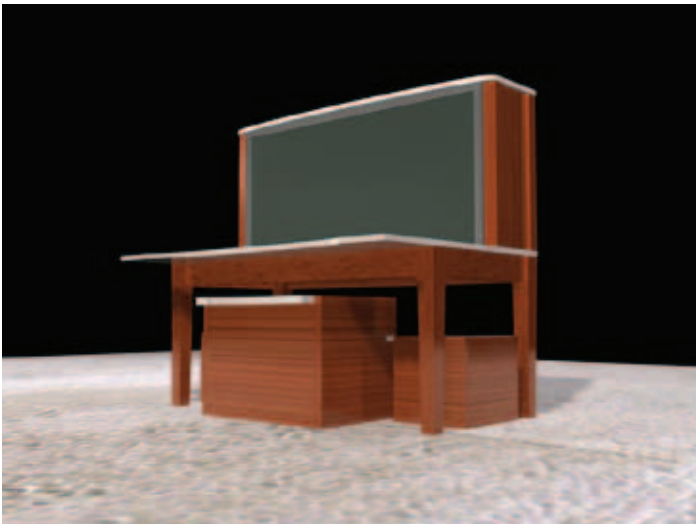
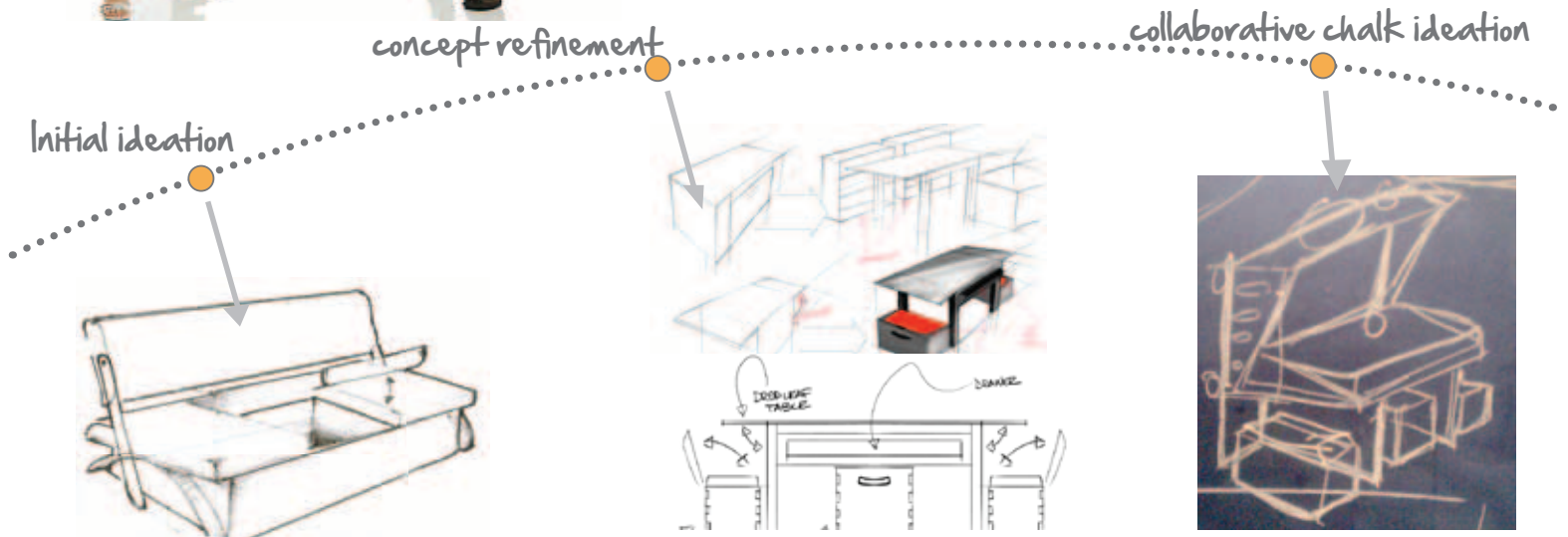


## Design Intent

To conceptualize, develop and fabricate a system of storage that equals a children's bed in size, doubles as a storage system and incorporates subliminal or direct processes for fundamentals of organizational learning.

## Design Requirements

- Safety of the children
- Incorporate learning and organization
- Save space
- Multifunctional
- Hygienic properties





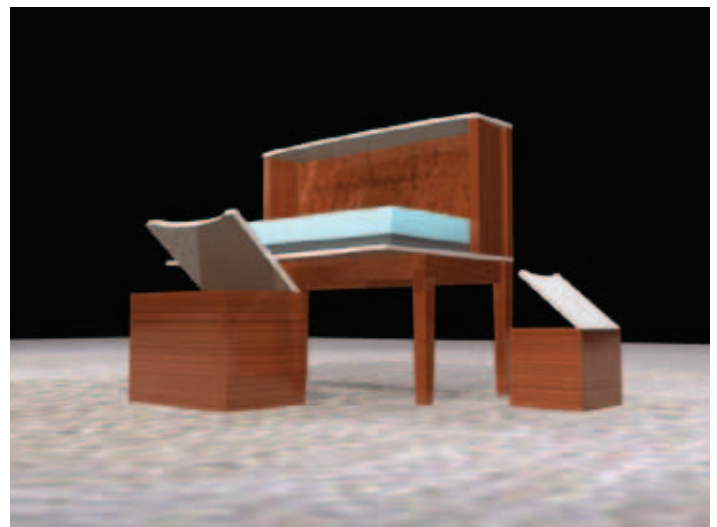
This group project started with the intent of creating a new type of storage system for the home. By surveying the potential consumers and researching the market, children's storage for either their room or play area showed itself to be the segment with the most potential. A second survey was then completed to find out heirarchy of wants showing that aesthetics and space saving capabilities to be at the utmost of importance. From there, three rounds of sketches and refinements took place. The final result is a child's desk that incorporates a murphy hing to allow for a bedding area to be lowered that can be used as a crib, changing table or child's bed.



CRIB ATTACHMENT



CHANGING TABLE





## Design Intent

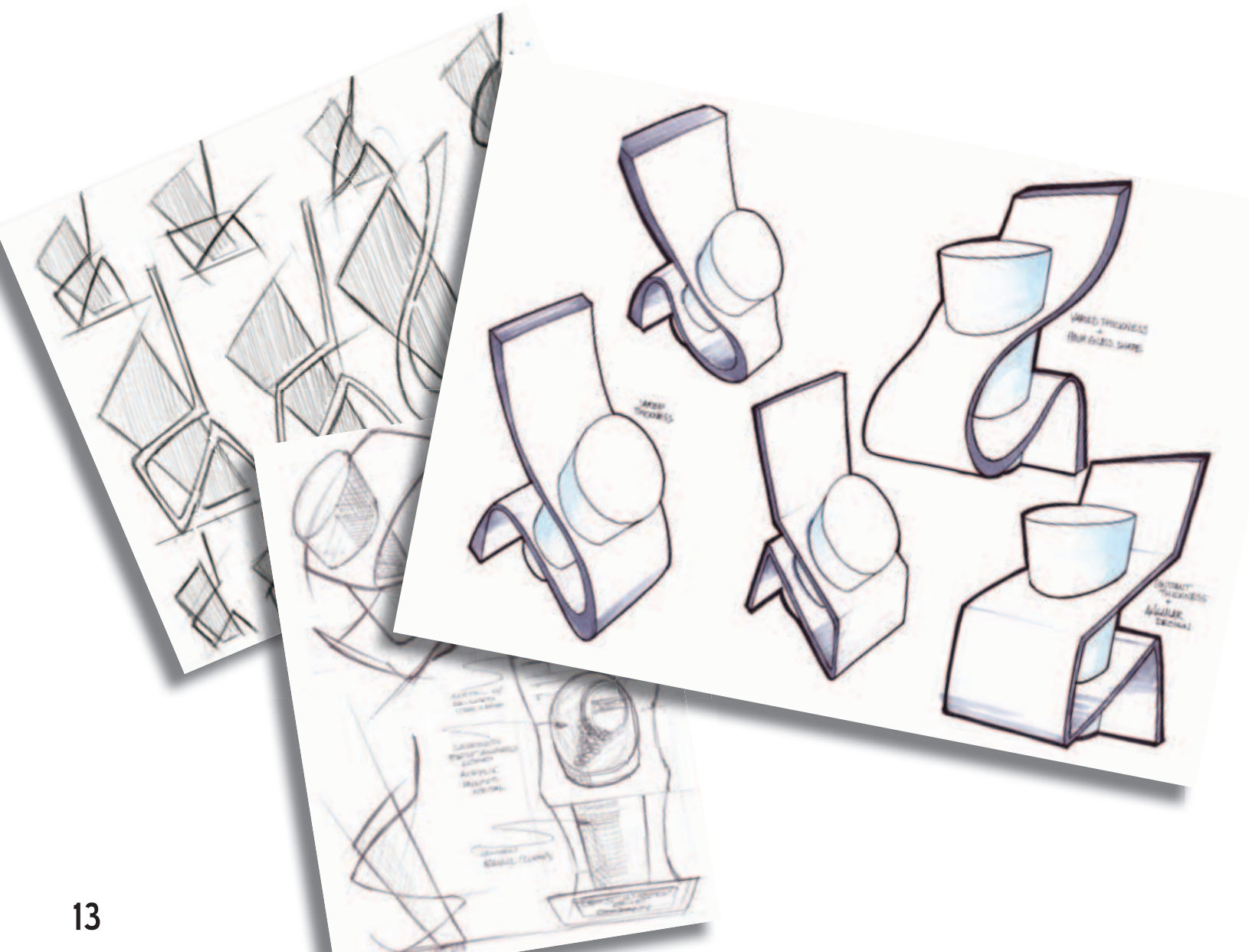
In keeping with the ideals of IIDA and the BEST Awards, conceptualize an **iconic** trophy using architecture, home goods and marquee imagery that is able to be manufactured for less than **\$200** per trophy.

## Research

While trying to make the **“anti-trophy,”** a few things will be key in the design:

**Form** - making a trophy more sculptural

**Materials** - fitting the desires of the IIDA committee to be able to change the trophy easily from year to year



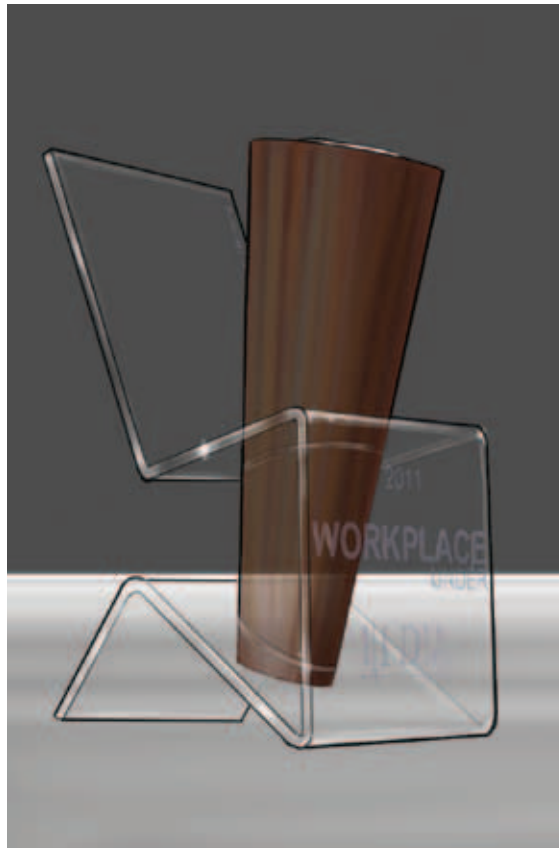
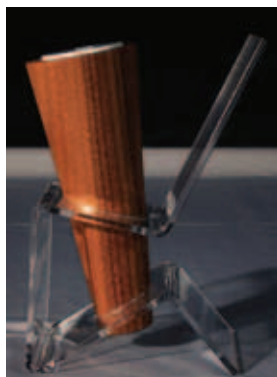




Twenty trophies were created using a laser cut acrylic template that was heat bent along side a custom jig to ensure that each trophy was a perfect match. The material choices of clear acrylic and a hand-turned tapered walnut cylinder were used for the 2011 awards ceremony. In the future, IIDA and the BEST Awards plans to change the materials to give each year a unique look while still maintaining the same shape inspired by a winding Hollywood red carpet and spotlight.




## Final Presentation




### Feature Spotlight -

Trying to incorporate a logo into an abstracted designed proved to be challenging. With the help from the coordinating team from IIDA, direction was pointed toward a more subdued version of the logo, while still using the BEST font and placement. It was thought that this logo element could also be an item that could change throughout the years of the awards show, so it needed to have room to grow with the trophy. The clients and recipients were very please with the overall outcome of all twenty trophies.

A silhouette of a hiker with a backpack stands on a rocky peak, looking out over a vast landscape under a dramatic sunset sky. The sky transitions from a deep orange near the horizon to a dark blue at the top, with scattered clouds catching the low light. The hiker is positioned on the left side of the frame, facing right. The overall mood is one of adventure and exploration.

## MISSION STATEMENT

Using The North Face's slogan, "Never Stop Exploring" as a theme, create a handheld, portable GPS unit that satisfies needs of both city and all-terrain use. This GPS should have ample battery life, large screen, downloading capabilities, extreme durability and be aesthetically pleasing to both market groups. In order to create a demographic-crossing product such as this, front-end research and development will be a key element to the overall design process.

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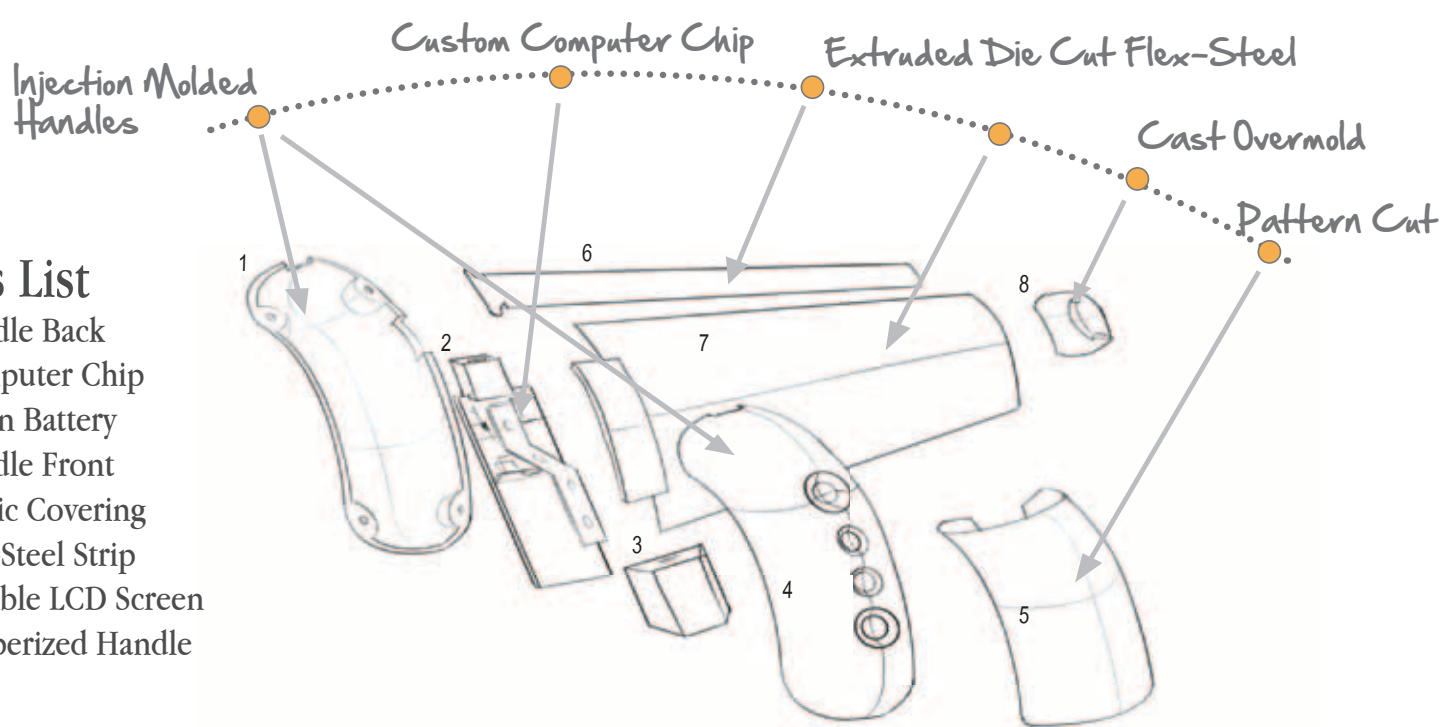
## 3D Model with soft goods case





## Parts List

1. Handle Back
2. Computer Chip
3. Li-Ion Battery
4. Handle Front
5. Fabric Covering
6. Flex-Steel Strip
7. Flexible LCD Screen
8. Rubberized Handle



## Digital Model and Orthographics



Dan De Mars Design



Dan De Mars

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NOTES:

