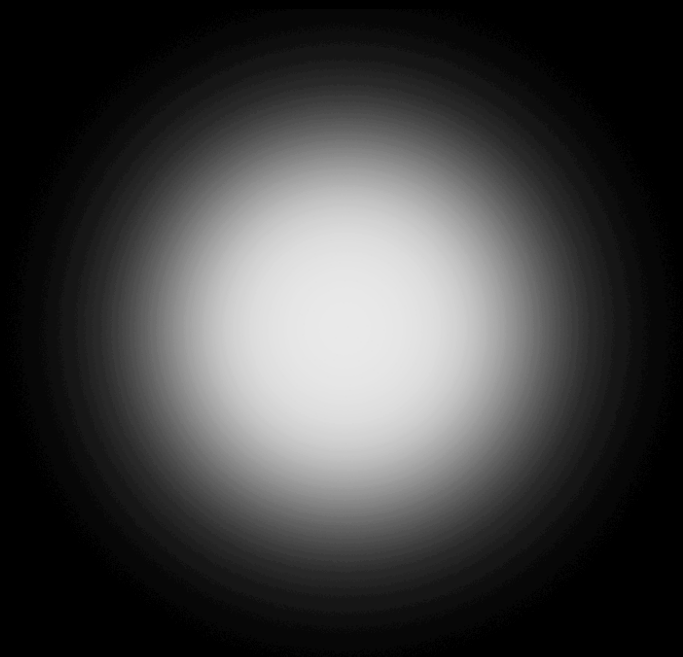
good morning

Form exploration of a portable lamp

By:
Nishant kamboj

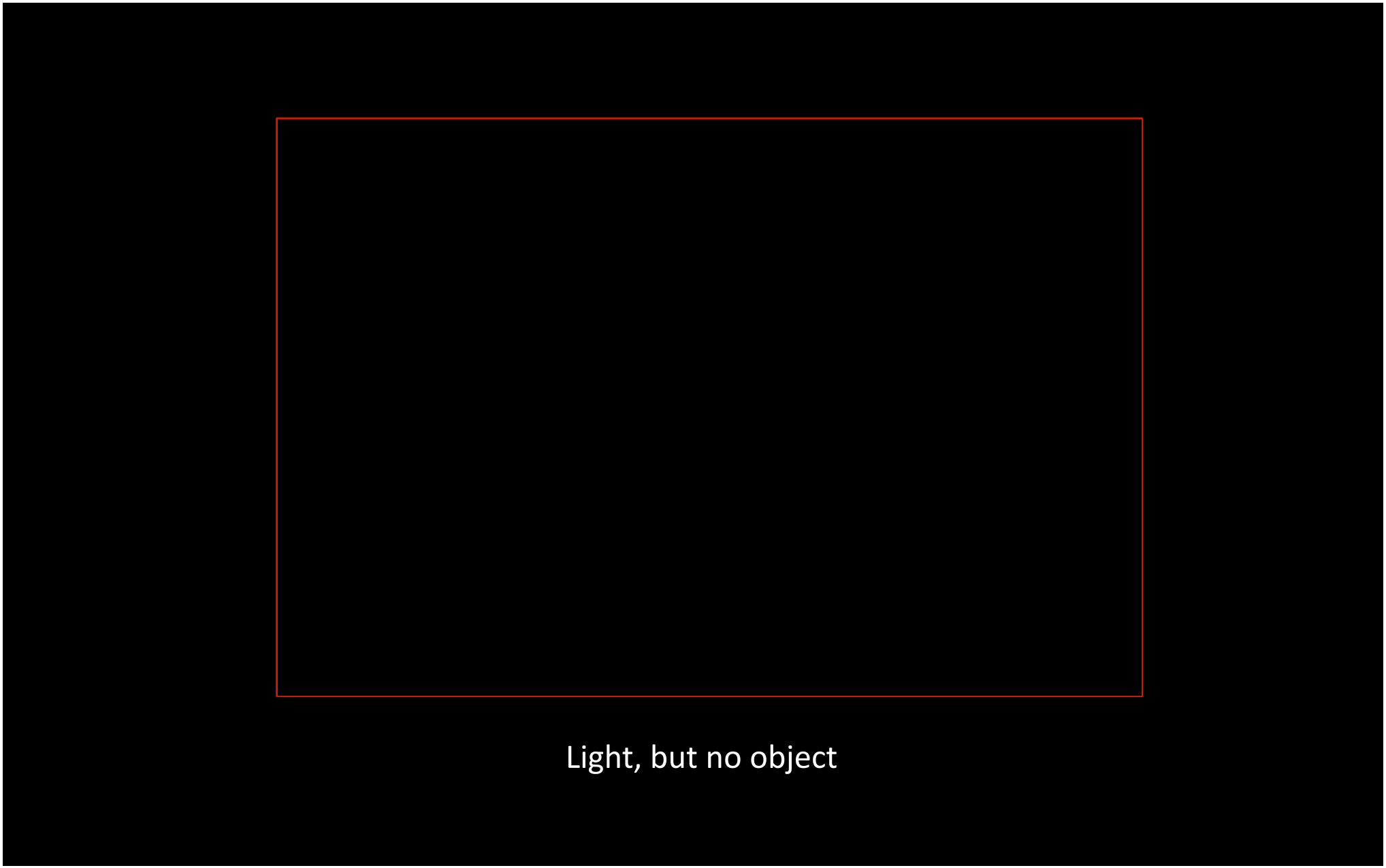
No light

light



Visible light (commonly referred to simply as light) is electromagnetic radiation that is visible to the human eye, and is responsible for the sense of sight.

Ref:http://en.wikipedia.org/wiki/Light



Light, but no object

Object/form

Physical body formed by the collection of masses, seen as a Physical form comprising of a visual appearance, configuration and shape when light reflects back from it to the eye.

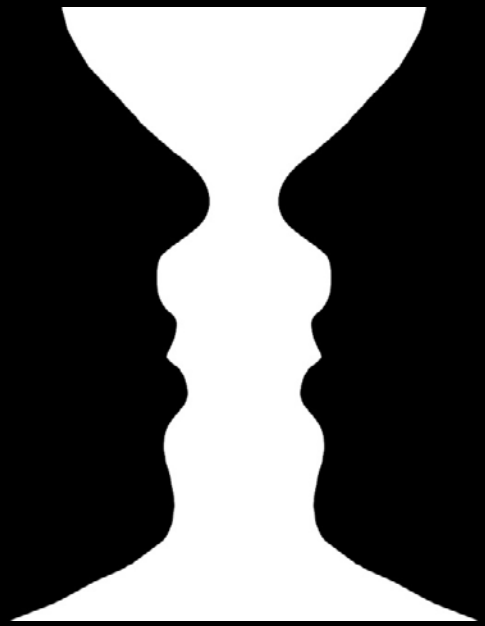
Ref:http://en.wikipedia.org/wiki/Light

Assuming the spectator to have a good eye-sight

Appropriate and inappropriate light

perception

Visual perception



Visual perception is the ability to interpret the surrounding environment by processing information that is contained in visible light

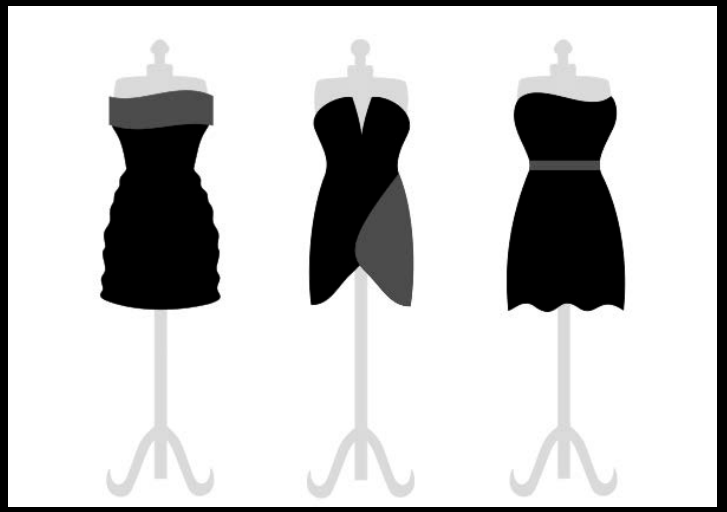
Refhttp://tinyurl.com/n9yu4m7

http://tinyurl.com/nfwv9wz

http://tinyurl.com/m2ka7s7

http://tinyurl.com/opxmken

http://tinyurl.com/n3k4yfu



http://tinyurl.com/mutbglv

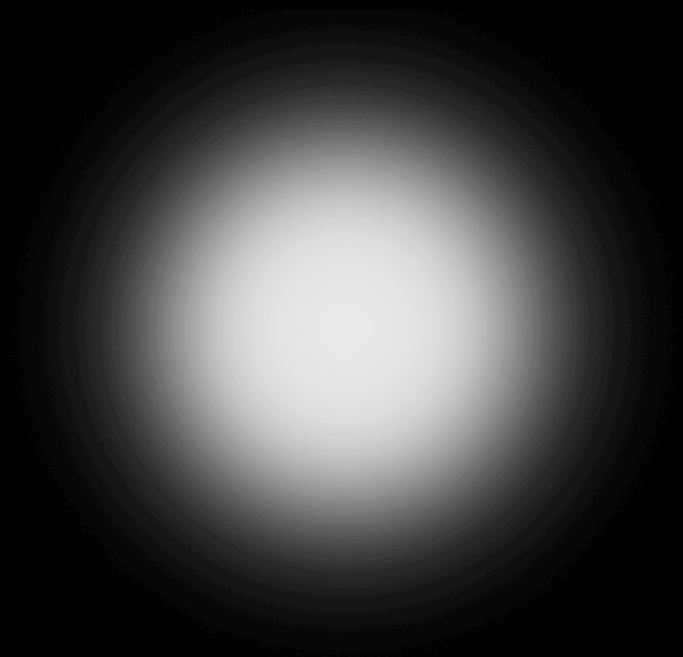
Age and Gender

http://tinyurl.com/oy9vl64

Culture
Profession
Region

http://tinyurl.com/nzbvcyx; http://tinyurl.com/loucjd9

light



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Ref:http://en.wikipedia.org/wiki/Light

lighting

http://tinyurl.com/oy9vl64

luminaire

http://tinyurl.com/mcaxt4j

Classification of luminaire

- Different Types of mount.

http://tinyurl.com/lm79t8w; http://tinyurl.com/mbq3s24; http://tinyurl.com/l6c6bzm

Classification of luminaire

- Different Types of mount.
- Different type of use.

Flash light

Task light

Search light

http://tinyurl.com/ol27ujp; http://tinyurl.com/pja6mb3

Classification of luminaire

- Different Types of mount.
- Different type of use.
- Different type of lamps.

Halogen lamp

CFL lamp

Led lamp

http://tinyurl.com/pja6mb3; http://tinyurl.com/nxyltuo; http://tinyurl.com/l45s6wx

Classification of luminaire

- Different Types of mount.
- Different type of use.
- Different type of lamps.
- Different placing of fixture.

Indoor light

Garden light

Street light

http://tinyurl.com/lm79t8w; http://tinyurl.com/mbq3s24; http://tinyurl.com/l6c6bzm

Portable light

http://tinyurl.com/mjqljlx

Use of portable lights

Beach resort

village

Unavailability of fixed power source

http://tinyurl.com/pwmxryl;
http://tinyurl.com/ow4tuho

scenario

emergency

http://tinyurl.com/qep8np7

Emergency lamp

http://tinyurl.com/o455xvr

Available products

http://tinyurl.com/pkob7sd; http://tinyurl.com/qep8np7; http://tinyurl.com/otx95xt; http://tinyurl.com/ojlmwxa; http://tinyurl.com/qd9ewq8

objective

Redesign a set of emergency lamp

(an opportunity to understand the different perception of people)

Form exploration – context

Emergency lamp – key

Design a family of emergency lamp

Exploring the form on the basis of age and gender

http://tinyurl.com/nsvdj68

Lets design

Design directions

http://tinyurl.com/ldq6tzf

Direction 1

explore using metaphors from nature

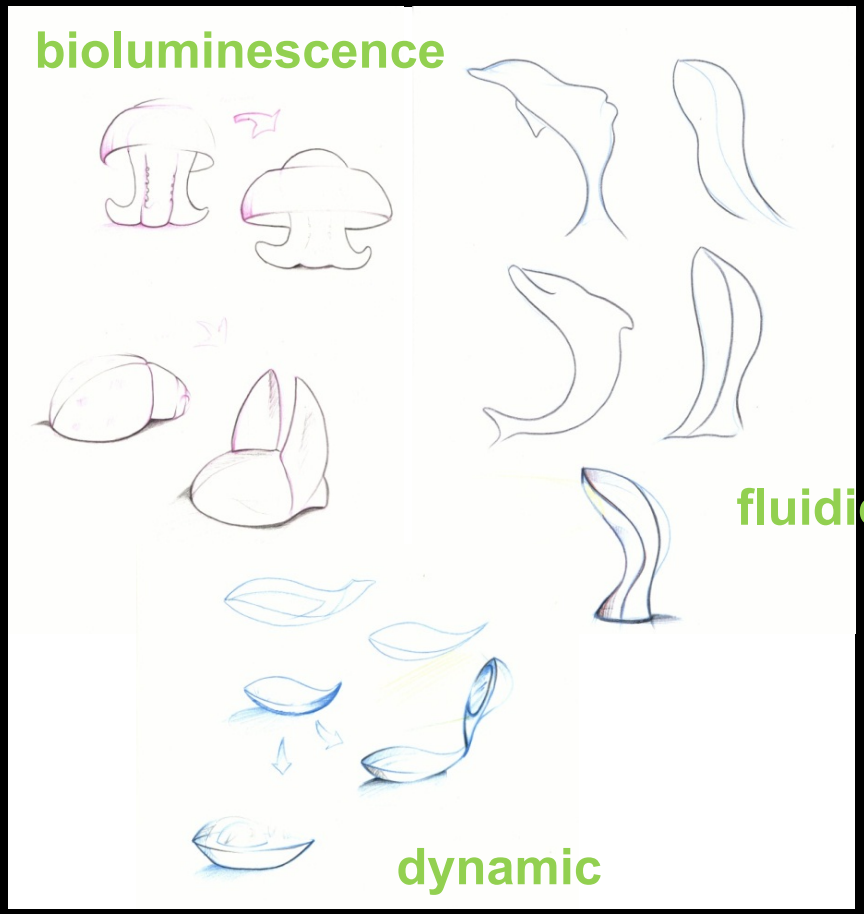
Airbus beluga

Beluga whale

Refhttp://tinyurl.com/orjf4cr:http://tinyurl.com/nk6662y

Direction 1

explore using metaphors from nature



Ref Image 29 http://tinyurl.com/qypebvk; Image 30 http://tinyurl.com/p7bgsnz; Image 31 http://tinyurl.com/qcqp4hz; Image 32 http://tinyurl.com/ox5m6jk

Direction 2

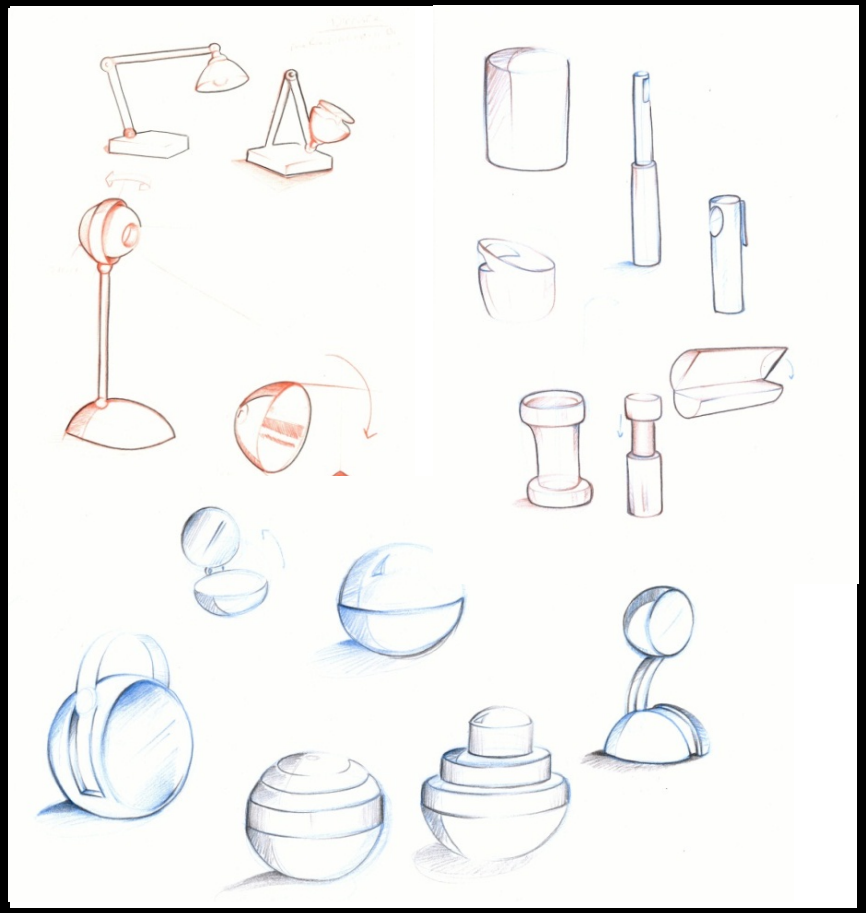
explore using: family metaphors

Cats family

Ref **http://tinyurl.com/l9nbv7q**

Direction 2

explore using: family metaphors



Set of shapes

Ref **http://tinyurl.com/l9nbv7q**

Direction 3

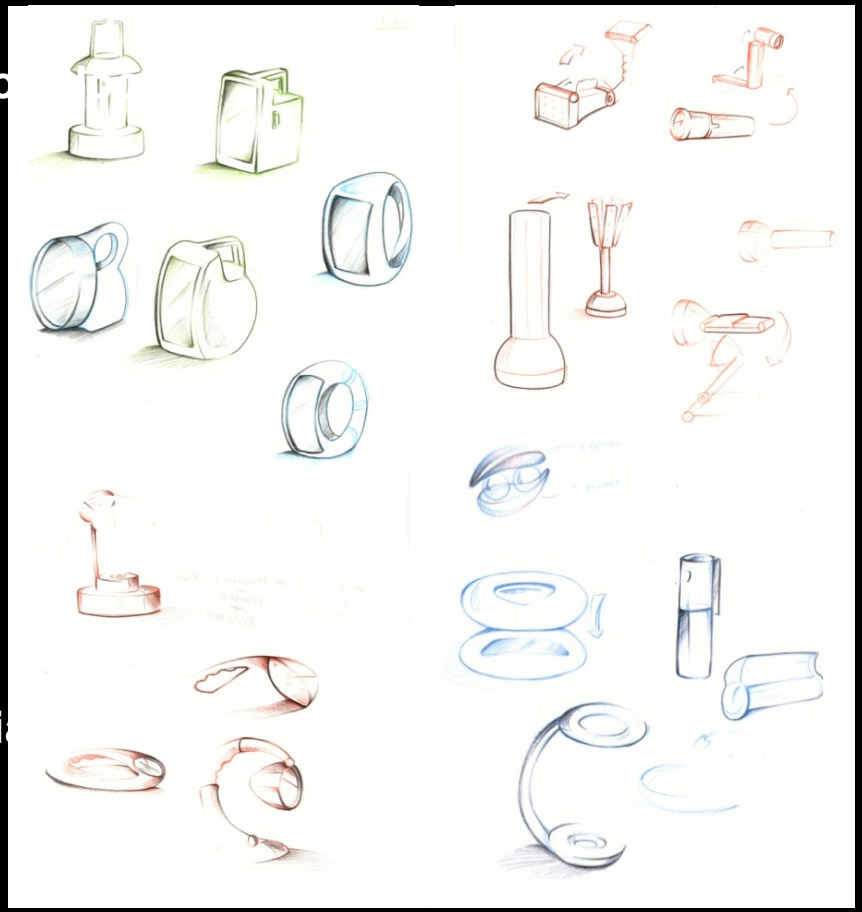
explore using: users need

http://tinyurl.com/ollqy8r;

Direction 3

explore using: users need

Search light for c



Trekking light

Home appli

Office light

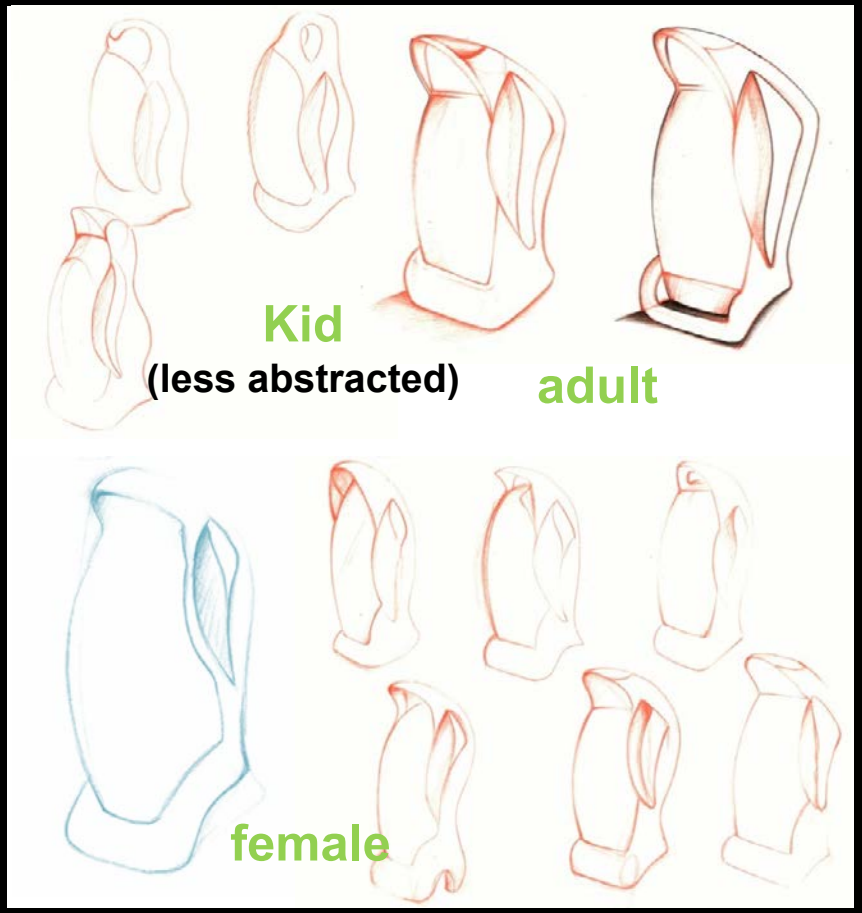
Direction 4

explore using: abstraction

http://tinyurl.com/qekwrsd

Direction 4

explore using: abstraction



Style and level of abstraction

Ref http://tinyurl.com/nz5qvru ; http://tinyurl.com/nz5qvru

insight

expression

Elements of design

persona

association

Visual quality

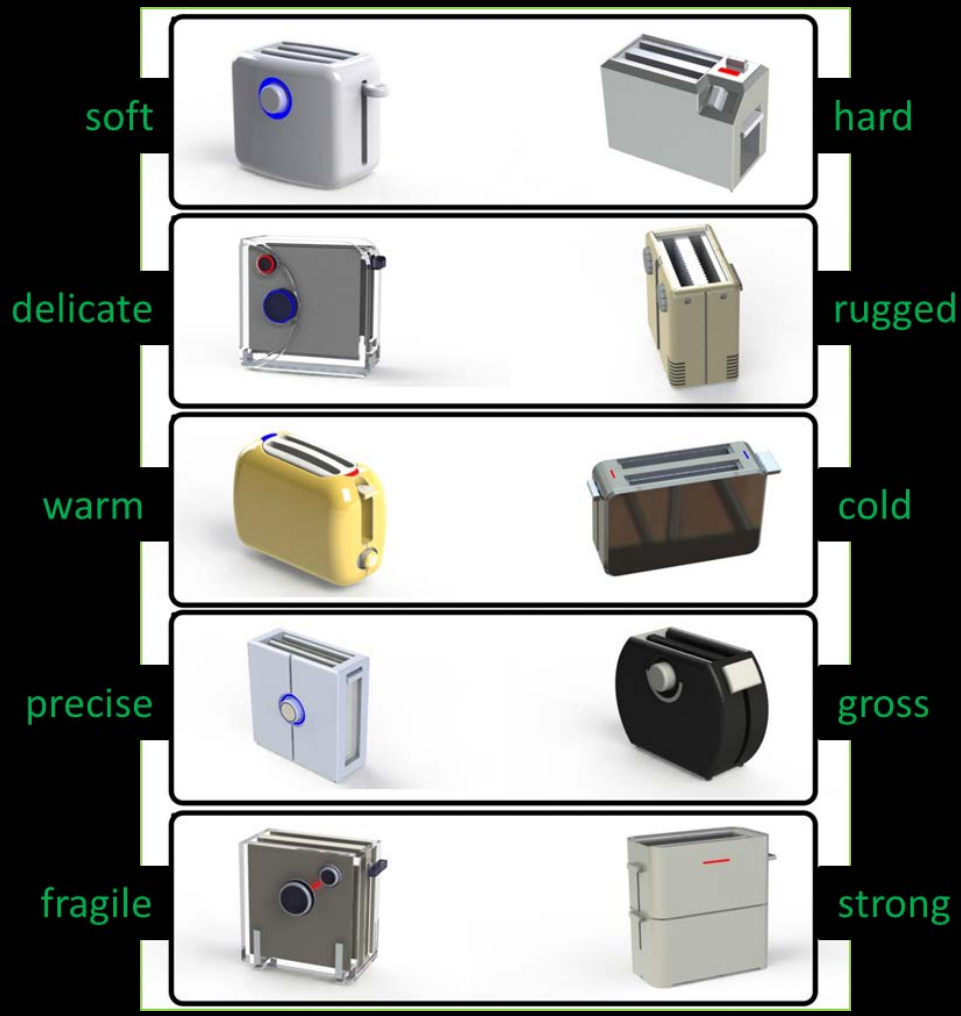
http://tinyurl.com/ldq6tzf

Expressions in form

Mode of visual communication between the product and the user

http://tinyurl.com/k92wo9x

Expressions in form



Expressions in form by
Prof. A G Rao.

Expressions related to persona

F u n

PLAYFULL

Cartoonish

Frolic

Sporty

Combination of expressions / attribute

http://tinyurl.com/k92wo9x

Expressions related to a product

precise

Combination of expressions

http://tinyurl.com/l5d2bvd

Review of expression in form course

Set of 10 expressions

warm

soft

delicate

fragile

precise

cold

hard

rugged

strong

gross

Image board for expressions

warm

Studying the literal meaning, synonyms,
Poetic significance, etc.

Elements of design table for each expression

warm

Form: Not pure geometric (ellipses) organic, circular forms, (elements of the product forms enclosures)

Texture: Rough –smooth (fur, fabric, flower)
Surface: Curved, wavy

Surface quality: Mat-medium gloss

Line: Continuous, smooth, curvy, soft

Edge quality: Prominent, high fillet radii, round edges, continuous

Hue: Warm colour, less contrast; Warm hues (orange , yellow, brown)

Value and Chroma: medium value, medium Chroma

Orientation: Horizontal
Proportion: 2:2:1

Using the nomenclature

Form: Not pure geometric (ellipses) organic, circular forms, (elements of the product forms enclosures)

*Form of an object can be geometric and non-geometric, Symmetric, balanced, organic etc. being other traits of form of an object. Adjectives like **pure and impure** can be added to define the percentage of geometric-ness in a shape.*

The tables are displayed on sheets

User/porter

Family of users

- Elderly (male and female) of age 65 and above
- Mid-aged (male and female) of age group 40 -50
- Adult (male and female) of age group 30-40
- Young (male and female) of age group 20 -30
- Teenagers (male and female) of age group 13-19

http://tinyurl.com/lt8aswx

persona

youngster

Typicality related to the age and gender

http://tinyurl.com/lld8m74

Psychographic analysis

Psychographics is the study of personality, values, attitudes, interests, and lifestyles

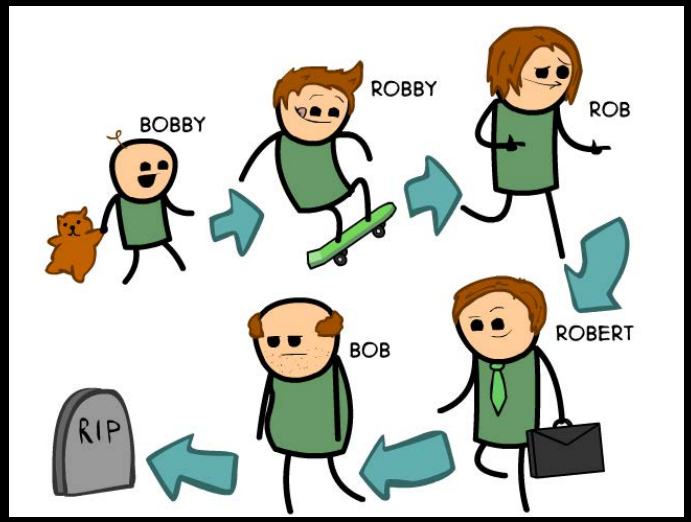
persona

youngster

Typicality related to the age and gender

http://tinyurl.com/lld8m74

Age bracket instead of groups



To limit the typicality based on traits according to The age

http://tinyurl.com/lld8m74

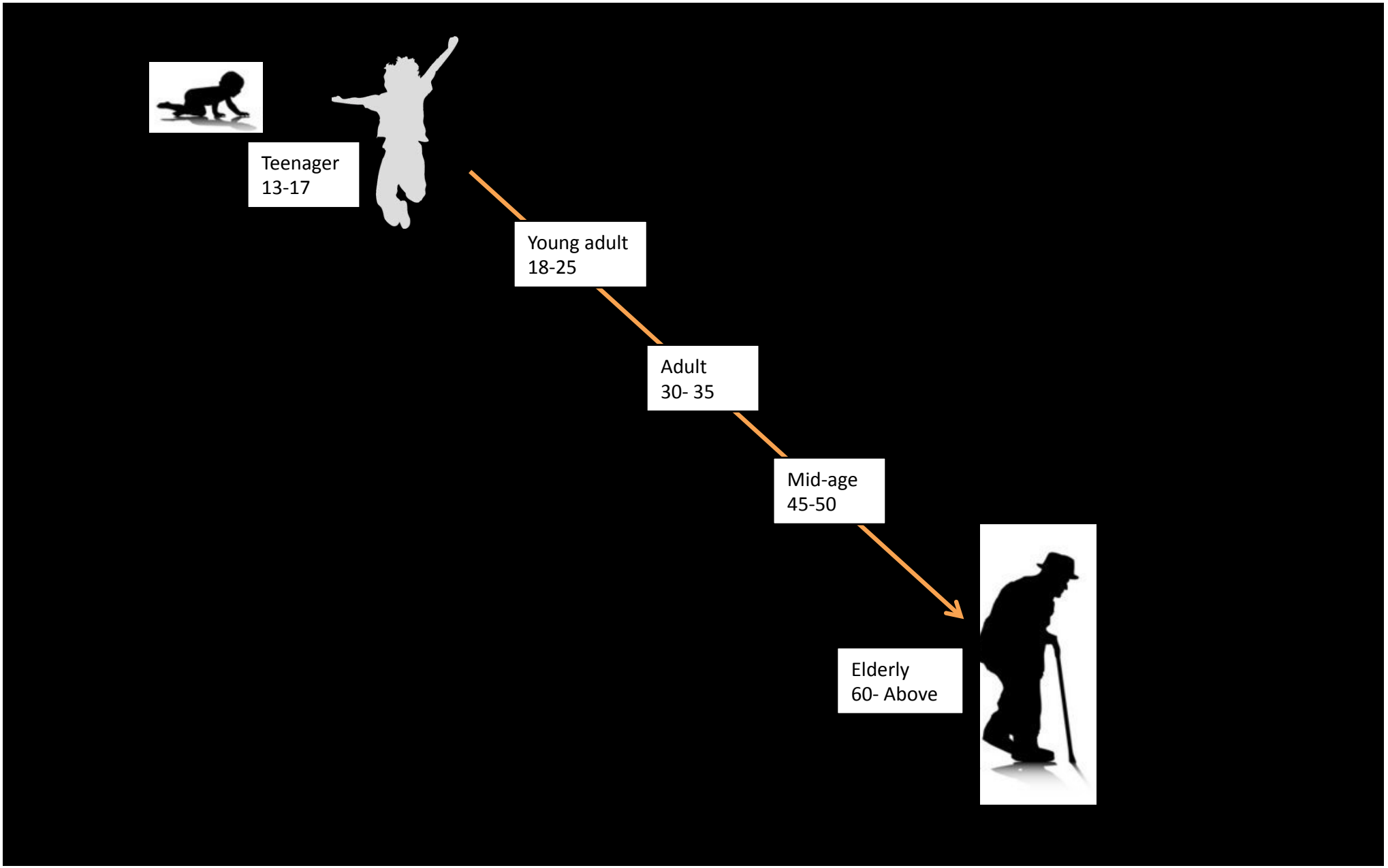

Teenager
13-17
Young adult
18-25
Adult
30- 35
Mid-age
45-50
Elderly
60- Above

Image board for each persona

Typical product associated to that age
And gender.

Elements of design table for each persona

From: pure/ geometrical shapes symmetrical / balanced [strong],
Cold and loud composition of elements [cold ,warm, Rugged]

Texture: smooth – rough (steel, polished wood, plastic,Glass, fabric), [cold, warm]

Surface: planar – non planar (subtle bulges)
Uniform, coldly related surfaces (no transition between Surface)

Surface quality: medium gloss – mat (Opaque – transparent)

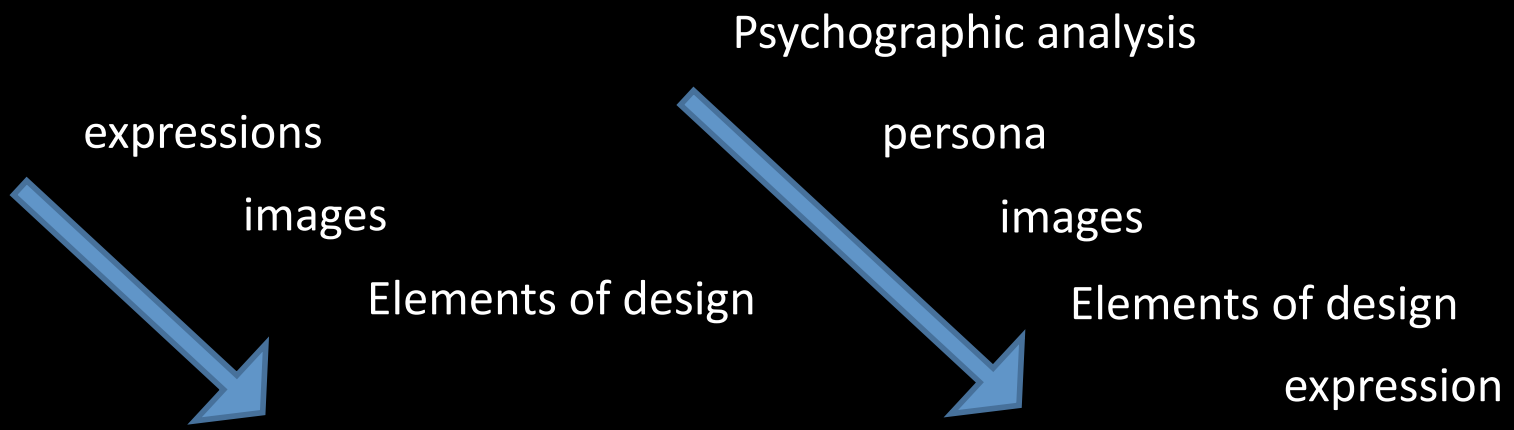
Line: prominent – slow/ continuous / straight - curved

Edge quality: prominent / continuous /sharp (subtle fillets) [strong, cold, hard]

Colour- cold – warm/ *less contrast* (Metallic- grey- brown- off white- light blue)

Value n Chroma - med. Value / med. Chroma

process



Along with intuitive inputs

Elements of design table for each persona

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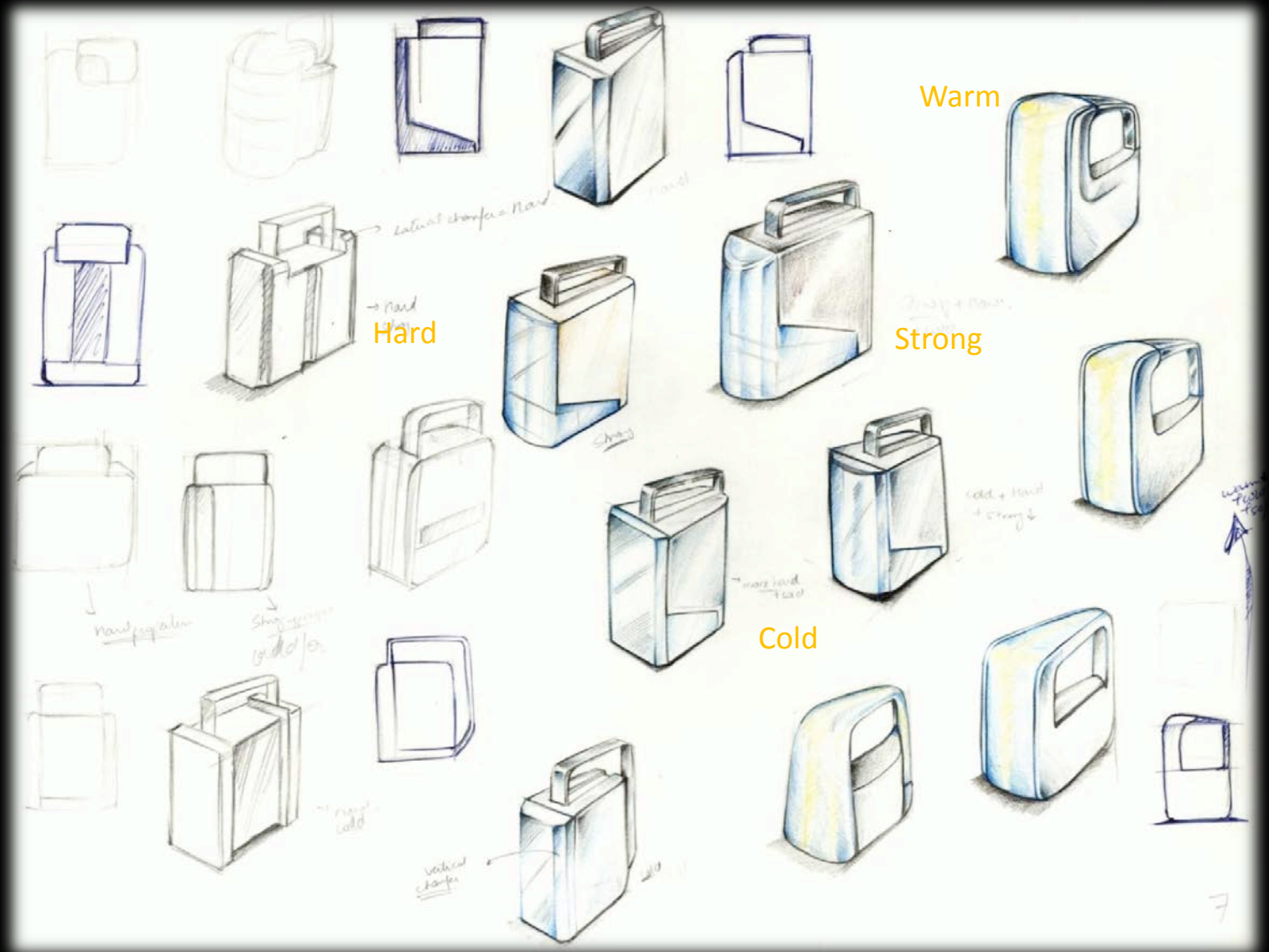
Value n Chroma - med. Value / med. Chroma

Images + elements of design + expression = ideas

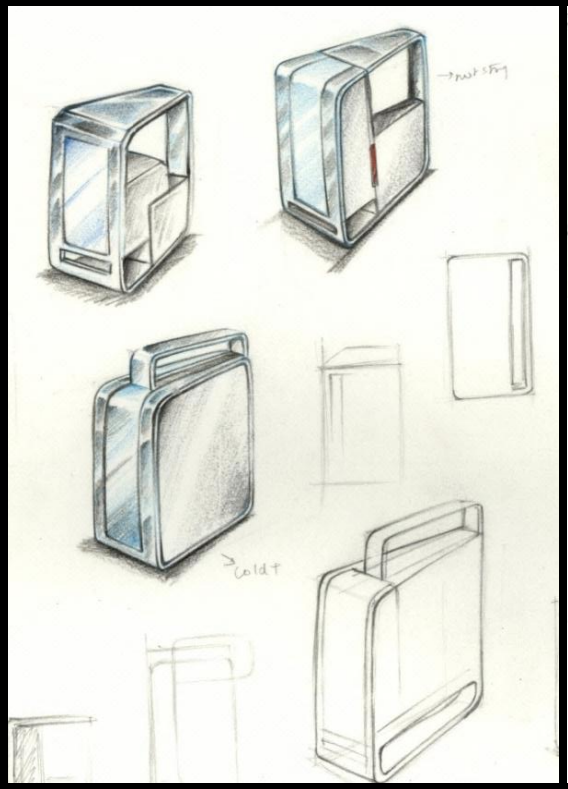

Warm
Hard
Strong
Cold

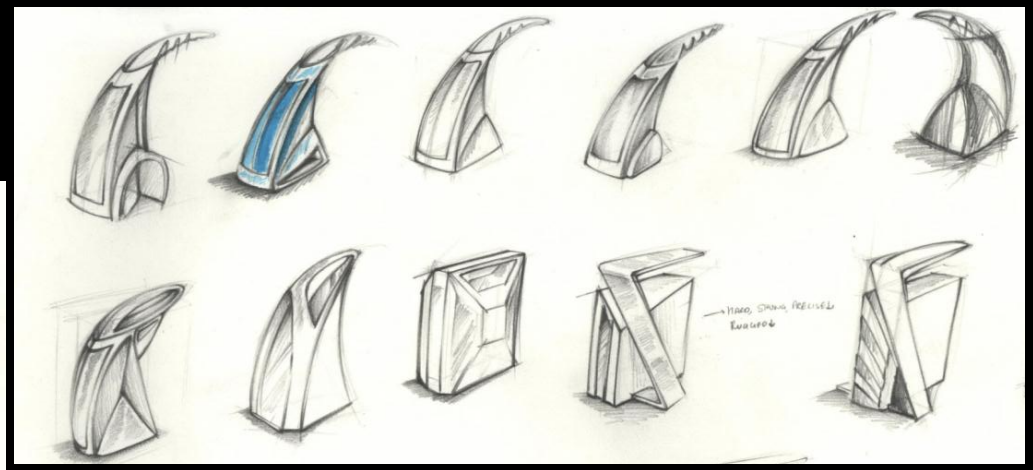
Preparing dish

http://tinyurl.com/ottrqaf

Ideation

male

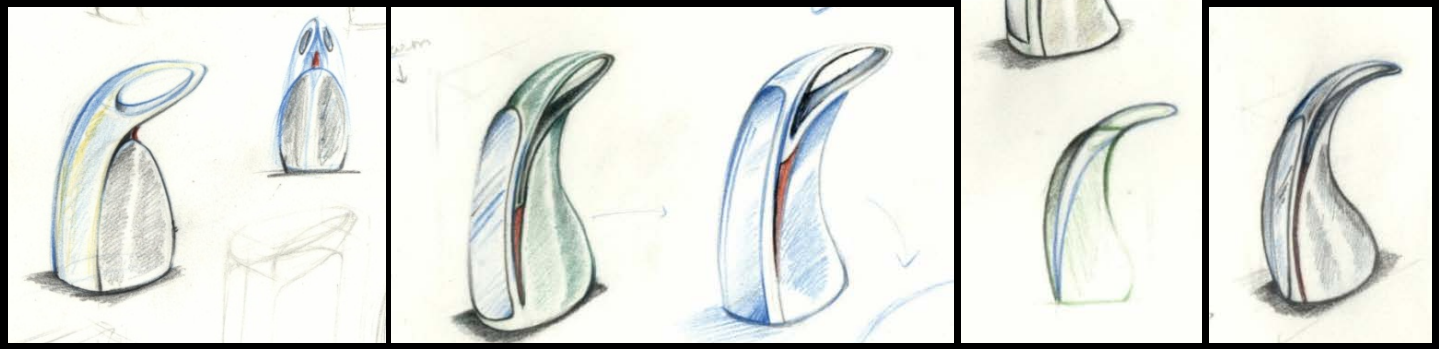




Hard, rugged, cold, strong,
Geometrical, sporty, etc.

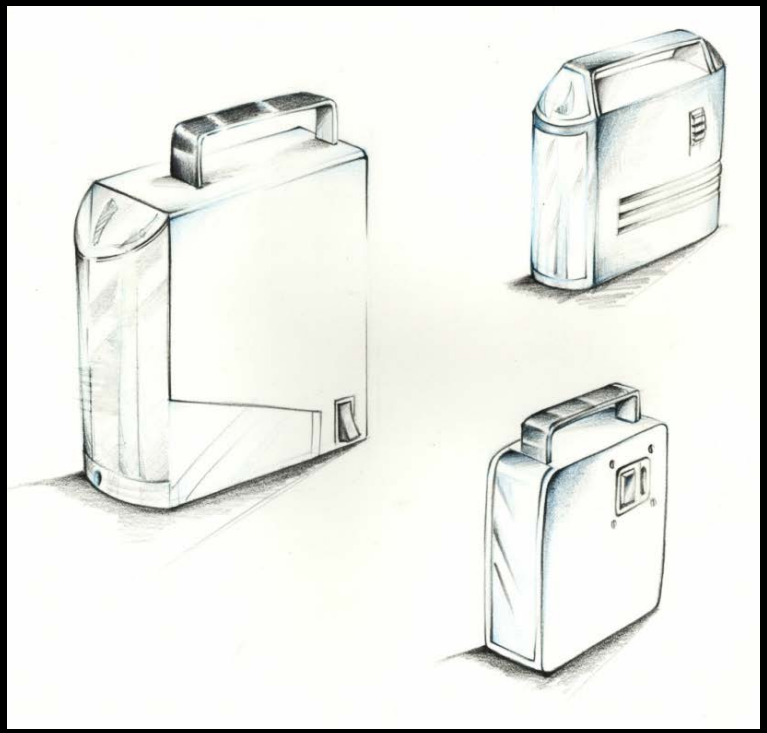
Ideation

female

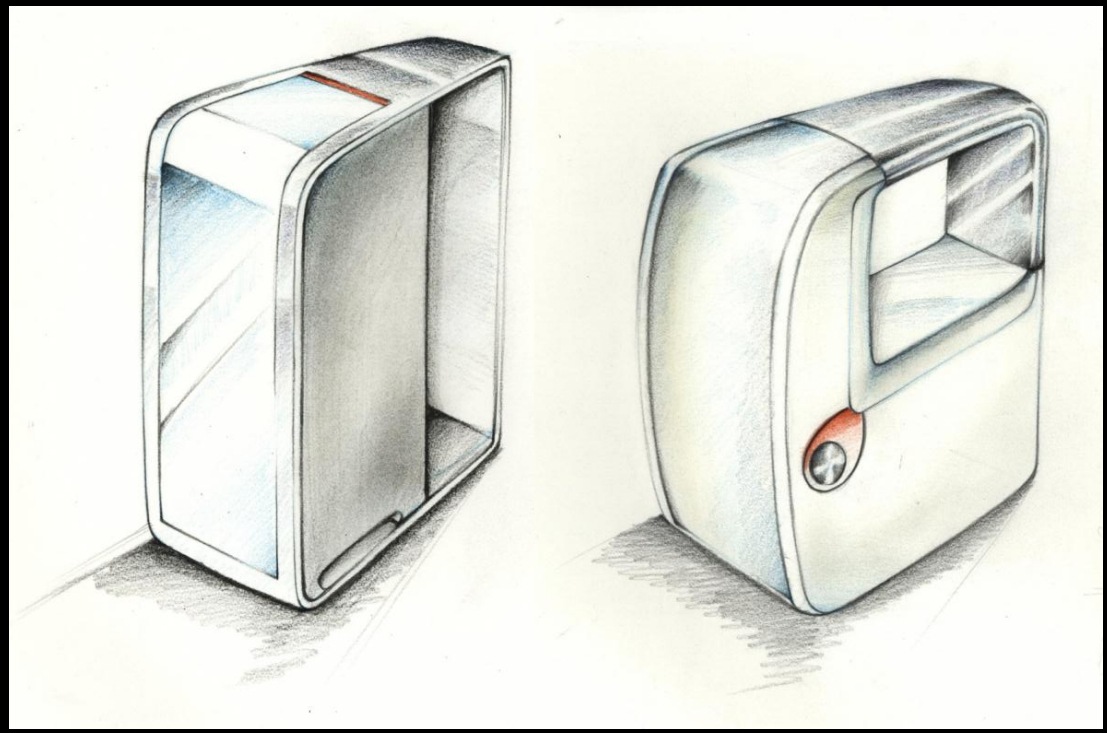


soft, delicate, warm, fragile,
Beautiful composition, etc.

Idea set 1

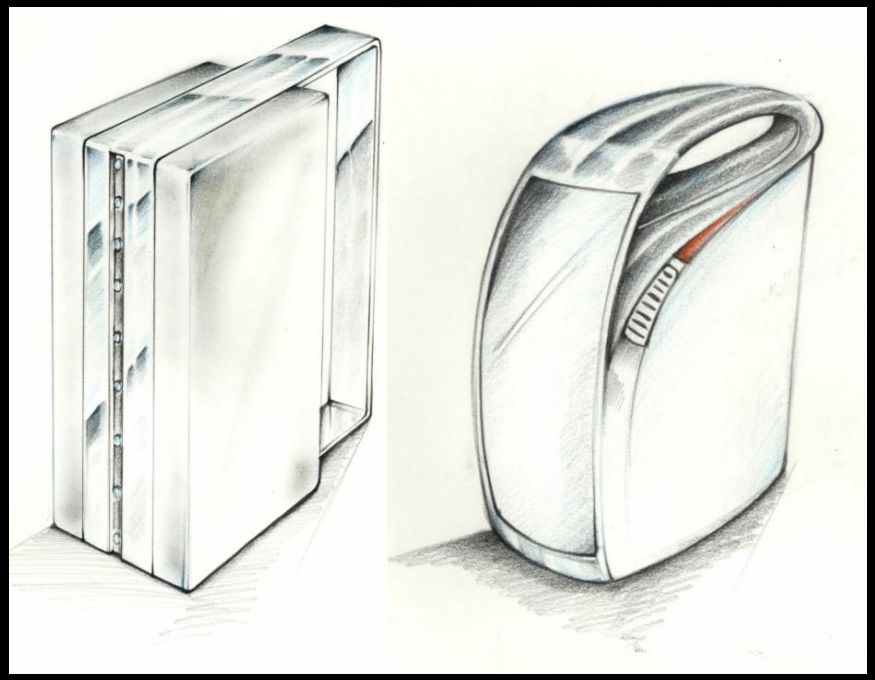


elderly

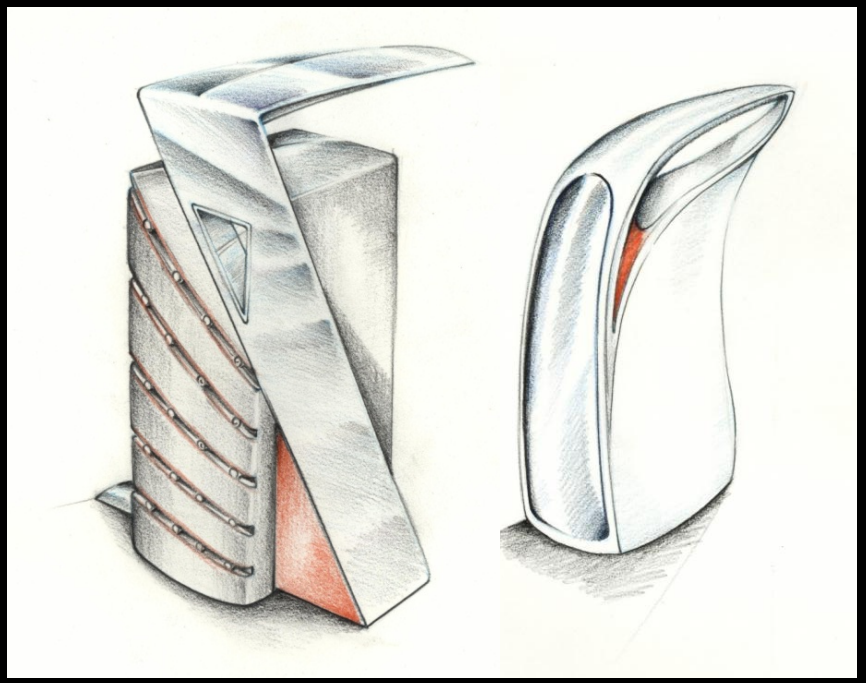


Mid age

Idea set 1

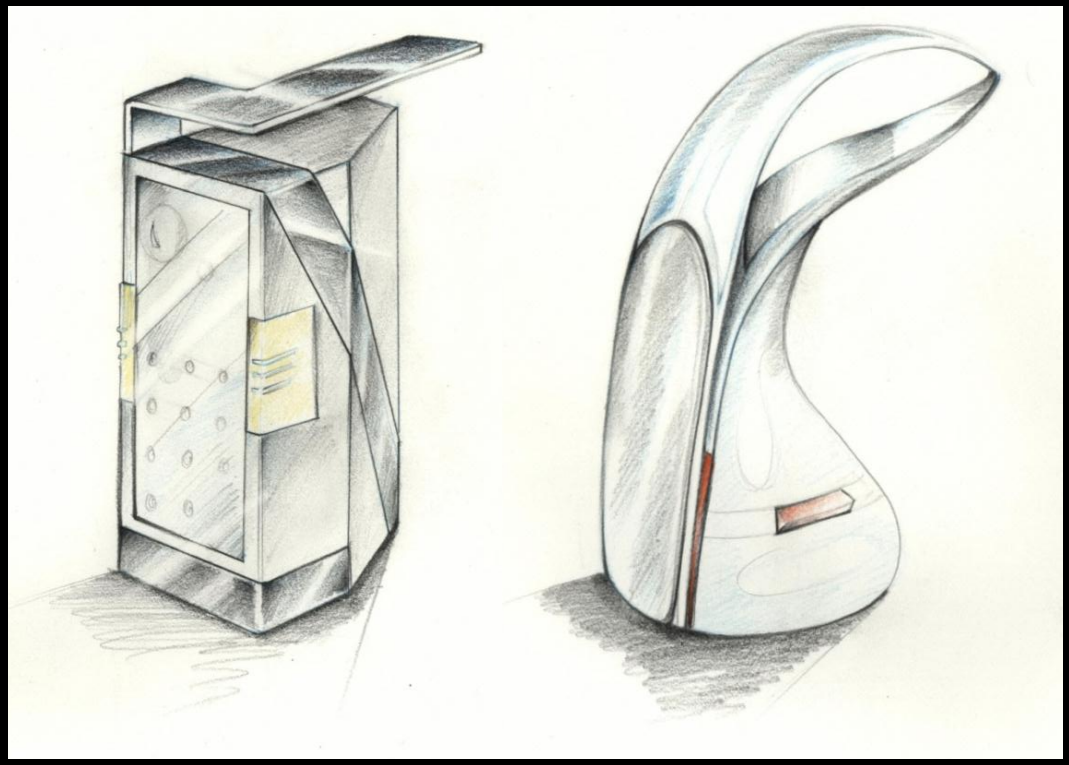


adult



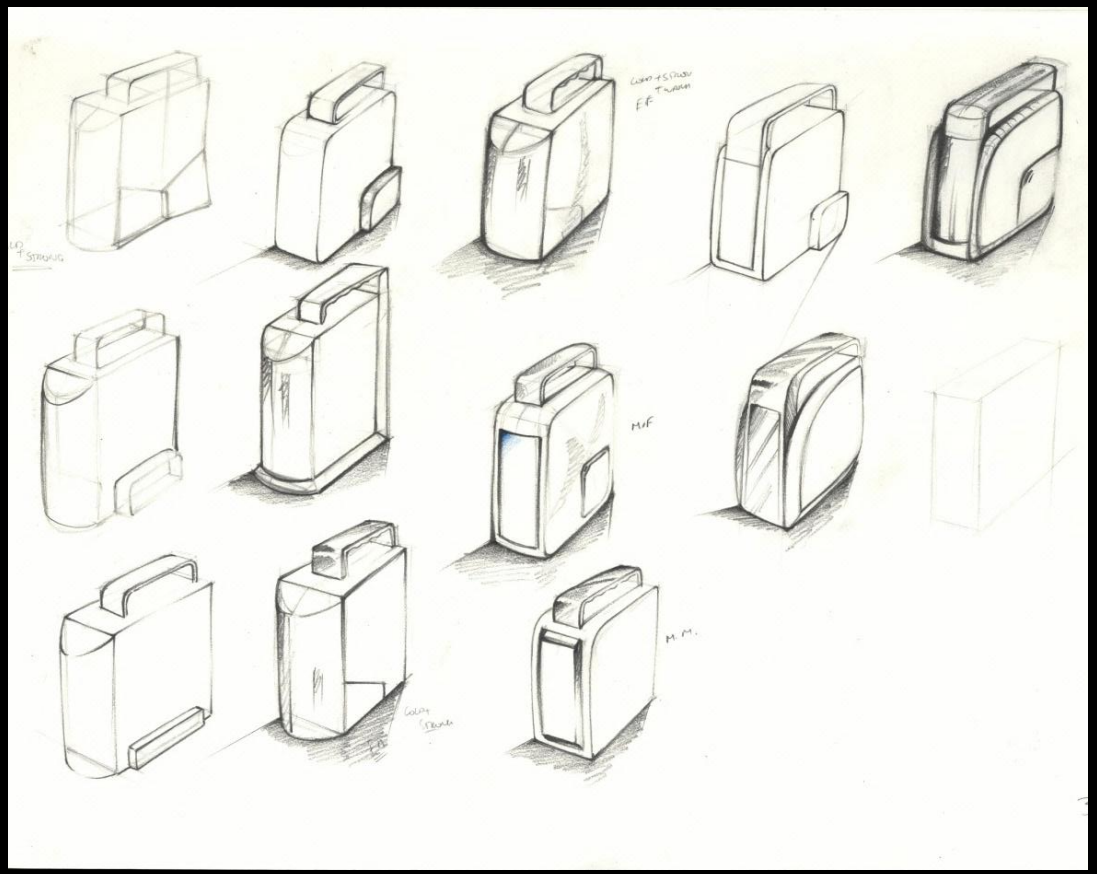
Young adult

Idea set 1



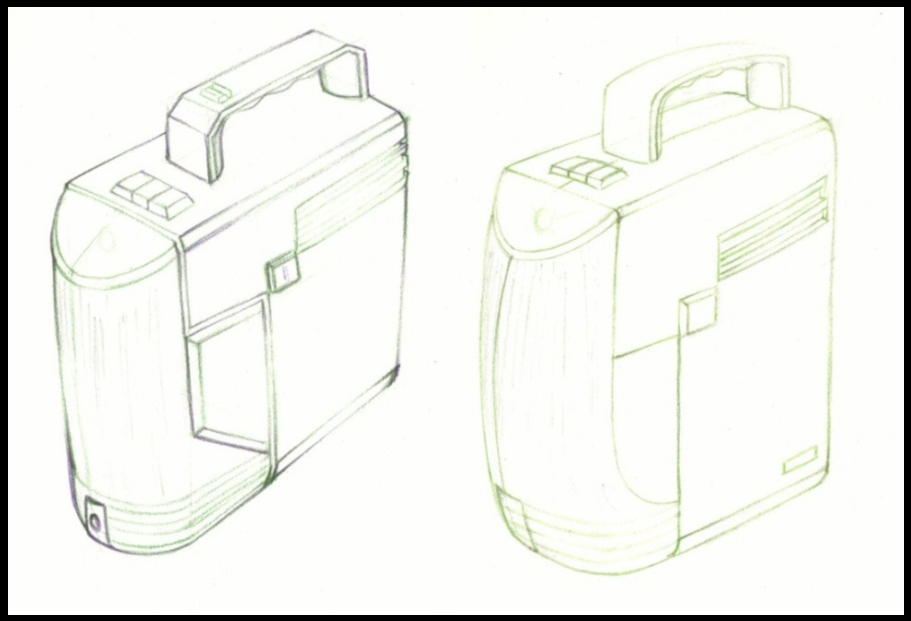
teens

Re-fining ideas

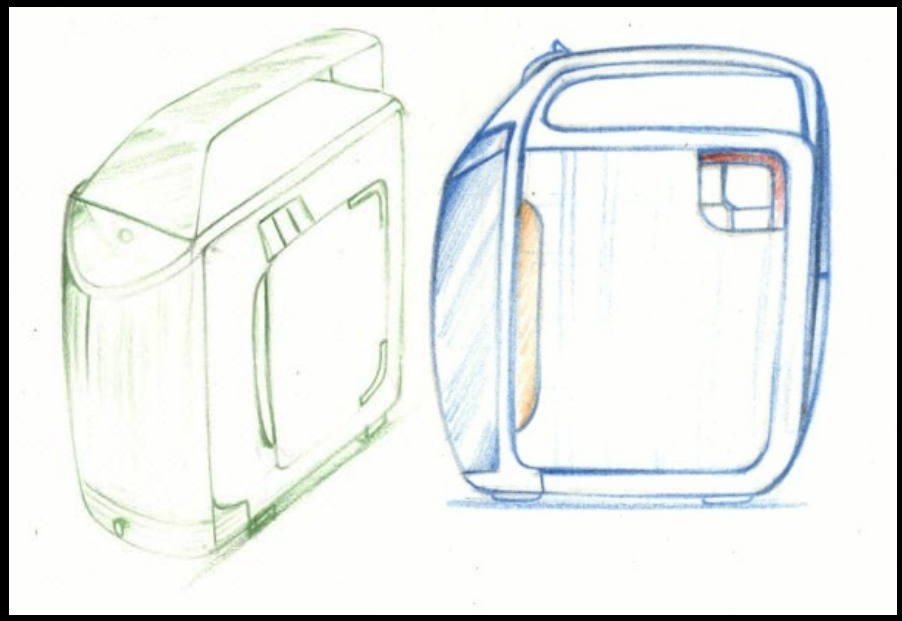


Adding family-ness

Idea set 2

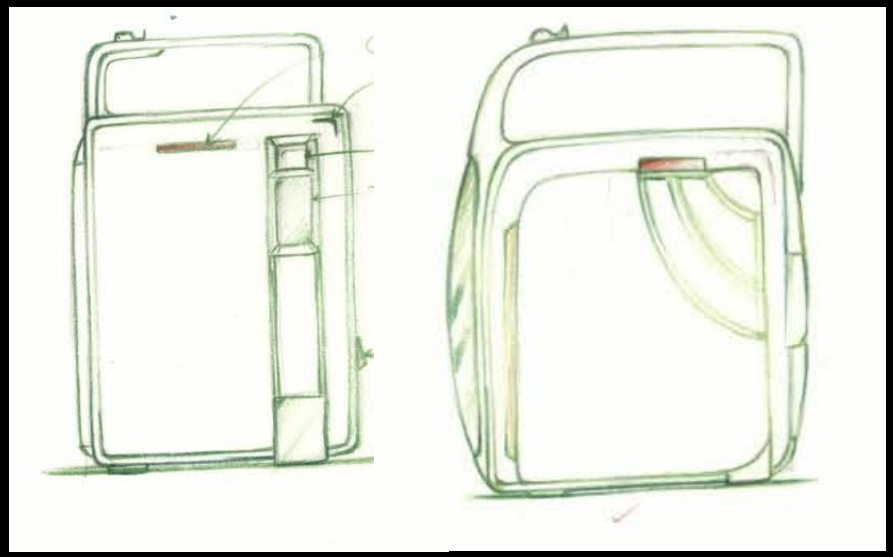


elderly

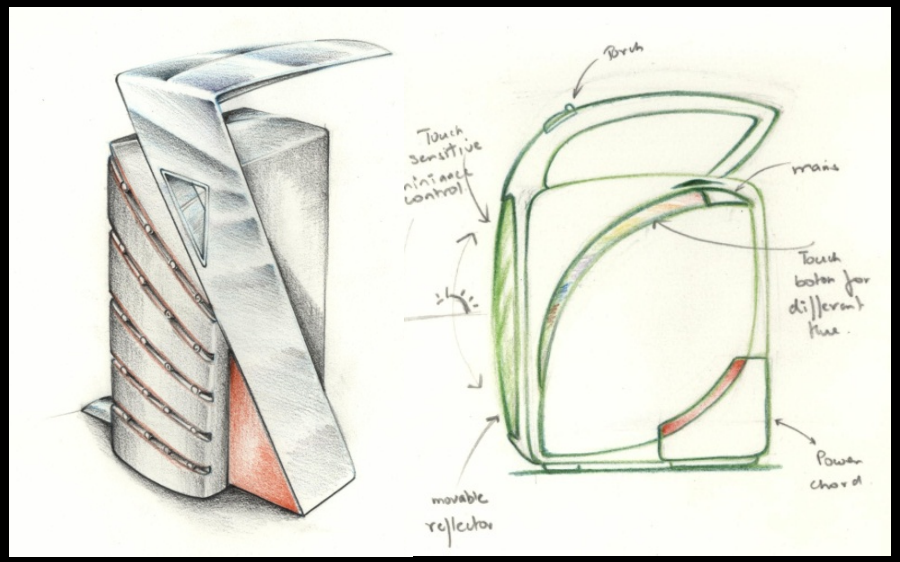


Mid age

Idea set 2

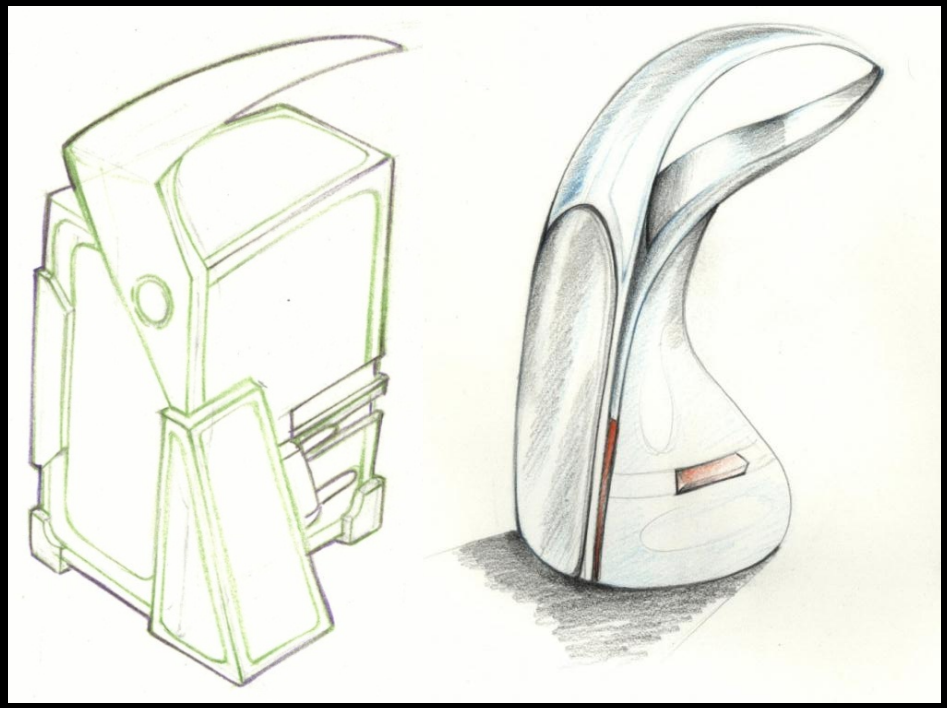


adult



Mid age

Idea set 2



teen

Concept set 1

Elderly

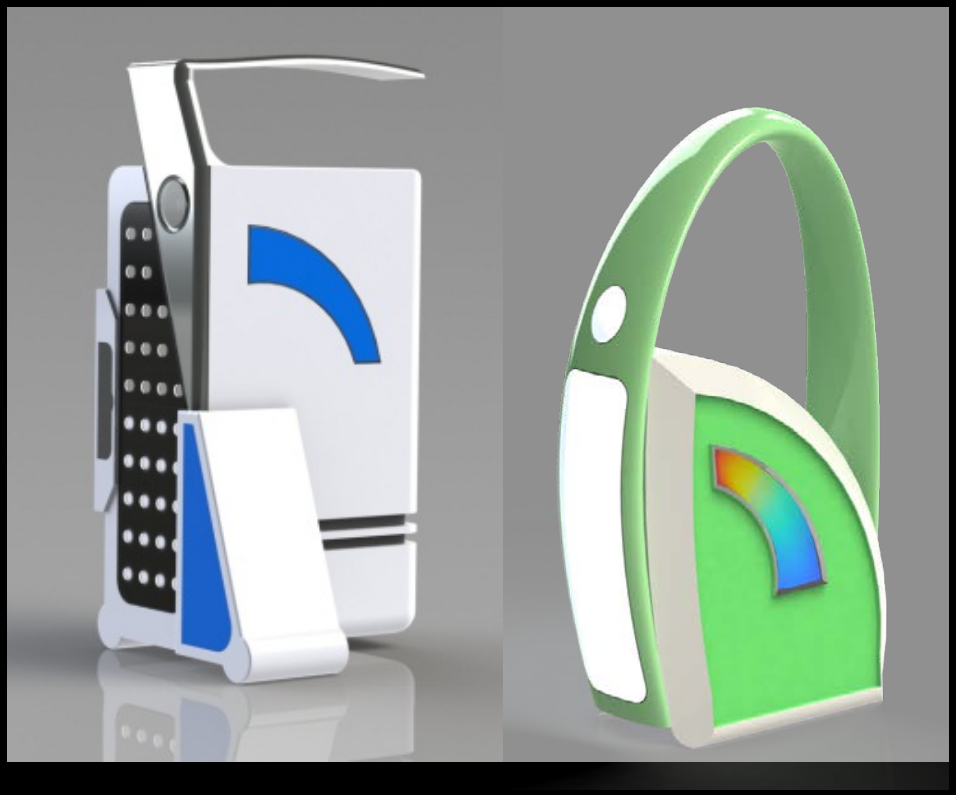
Mid age

Concept set 1

adult

Young adult

Concept set 1



teen

evaluation

evaluation

evaluation

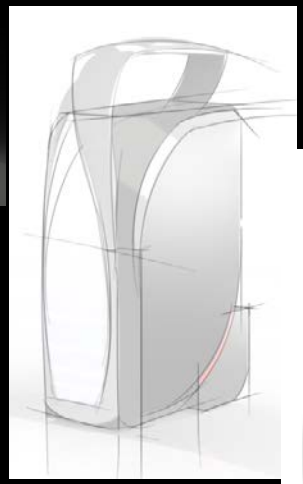
Needs more feminine-ness

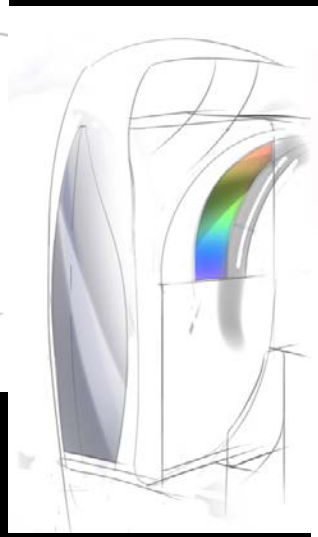
evaluation

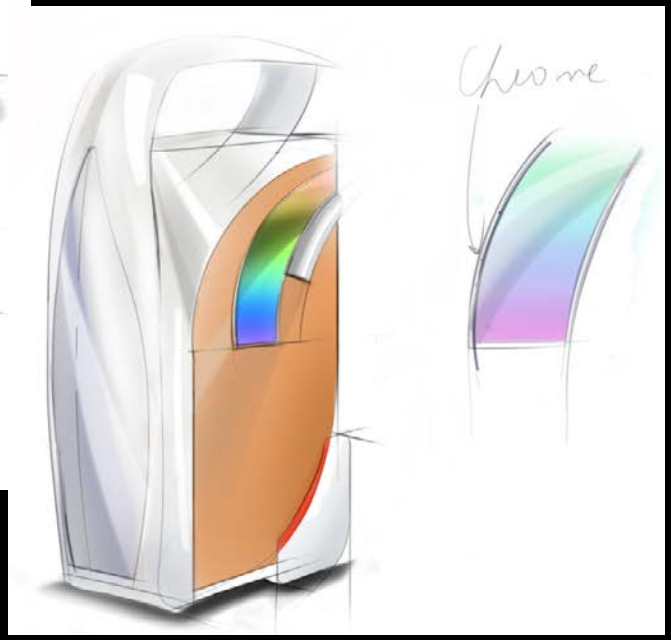
Too cold for adult

A prominent expression is missing

Refining concepts





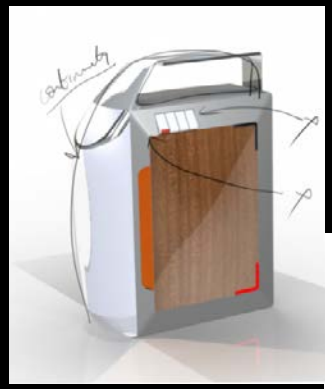


Refined set

Elderly male

Elderly female

Refined set

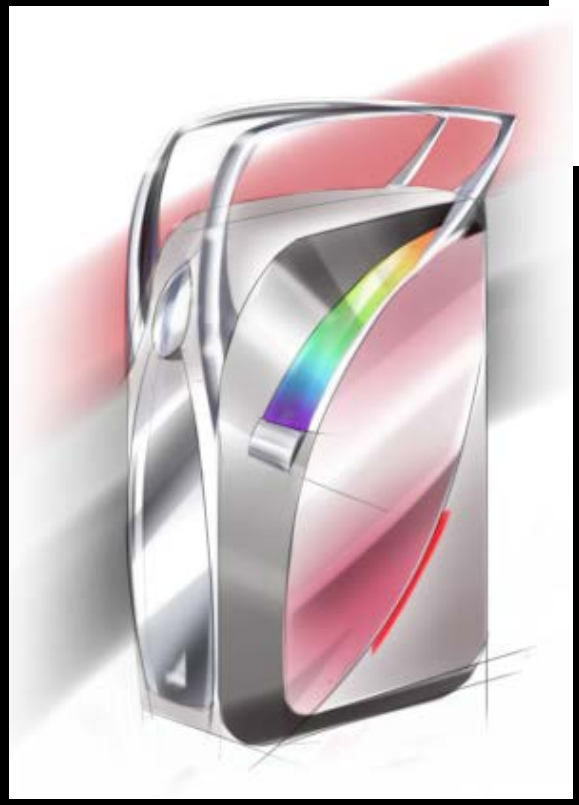


Mid age male

Mid age female

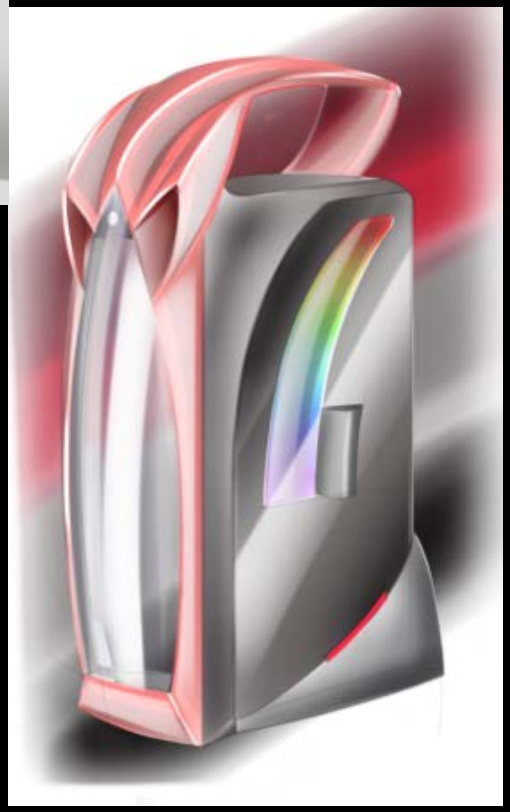
Refined set

Adult male

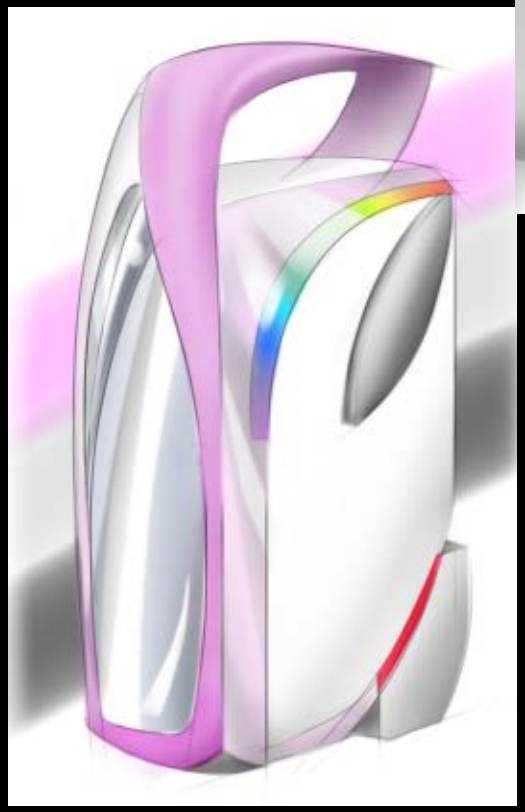


Mid age female

Refined set

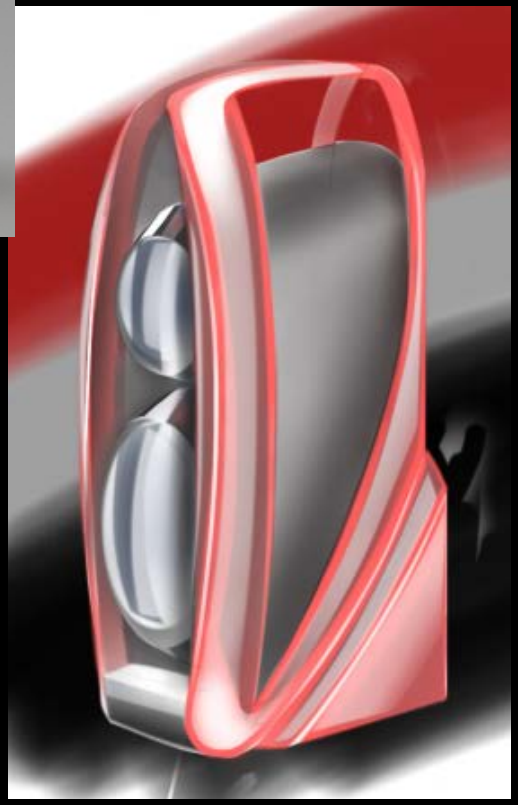


Young-adult male



Young- adult female

Refined set



teen male

Teen female

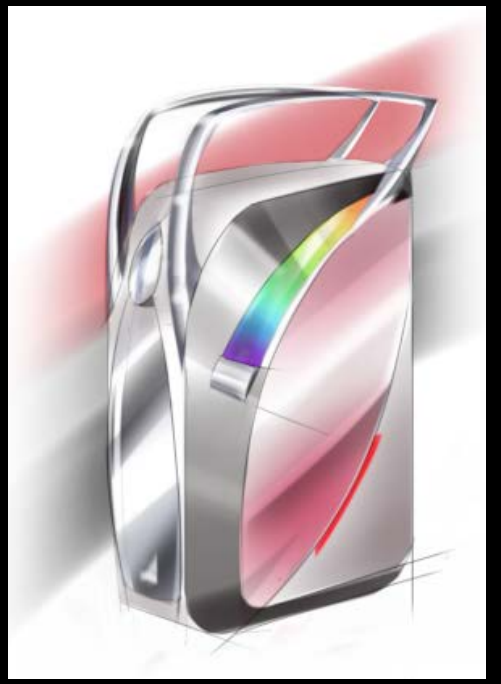
Analyzing the hue, value and Chroma

Young-adult female

evaluation

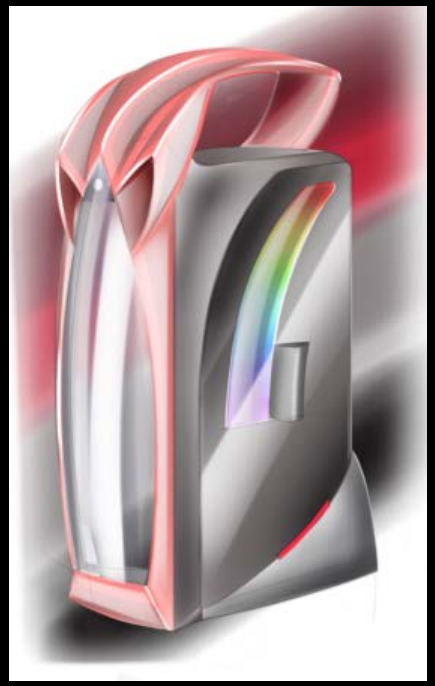
evaluation

Need more elements

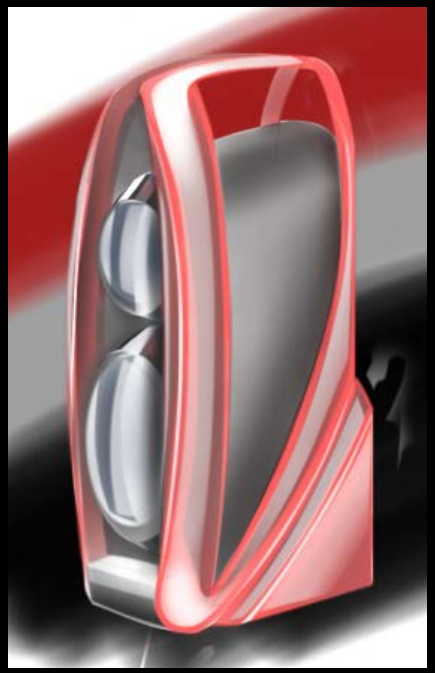


Needs subtlety

evaluation



Suits the teens



Suits the young-adult

refinement

Elderly male

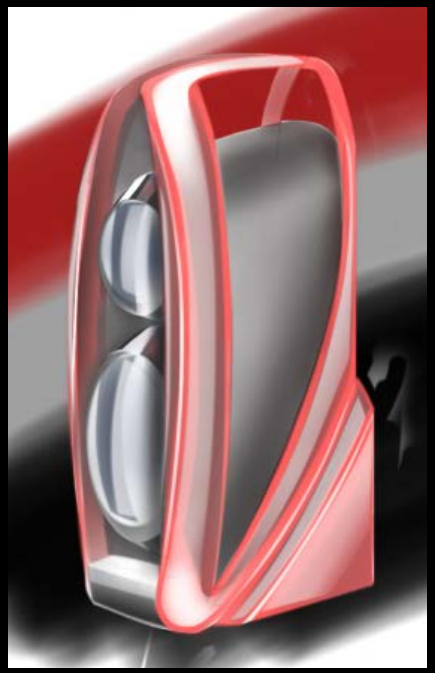
Elderly female

refinement

Mid-age female

adult female

refinement



Young adult male

The final set

The final set

Elderly male

Elderly female

The final set

Mid-age male

Mid-age female

The final set

Adult male

Adult female

The final set

Young-Adult male

Young-Adult female

The final set

teen male

teen female

Thank you