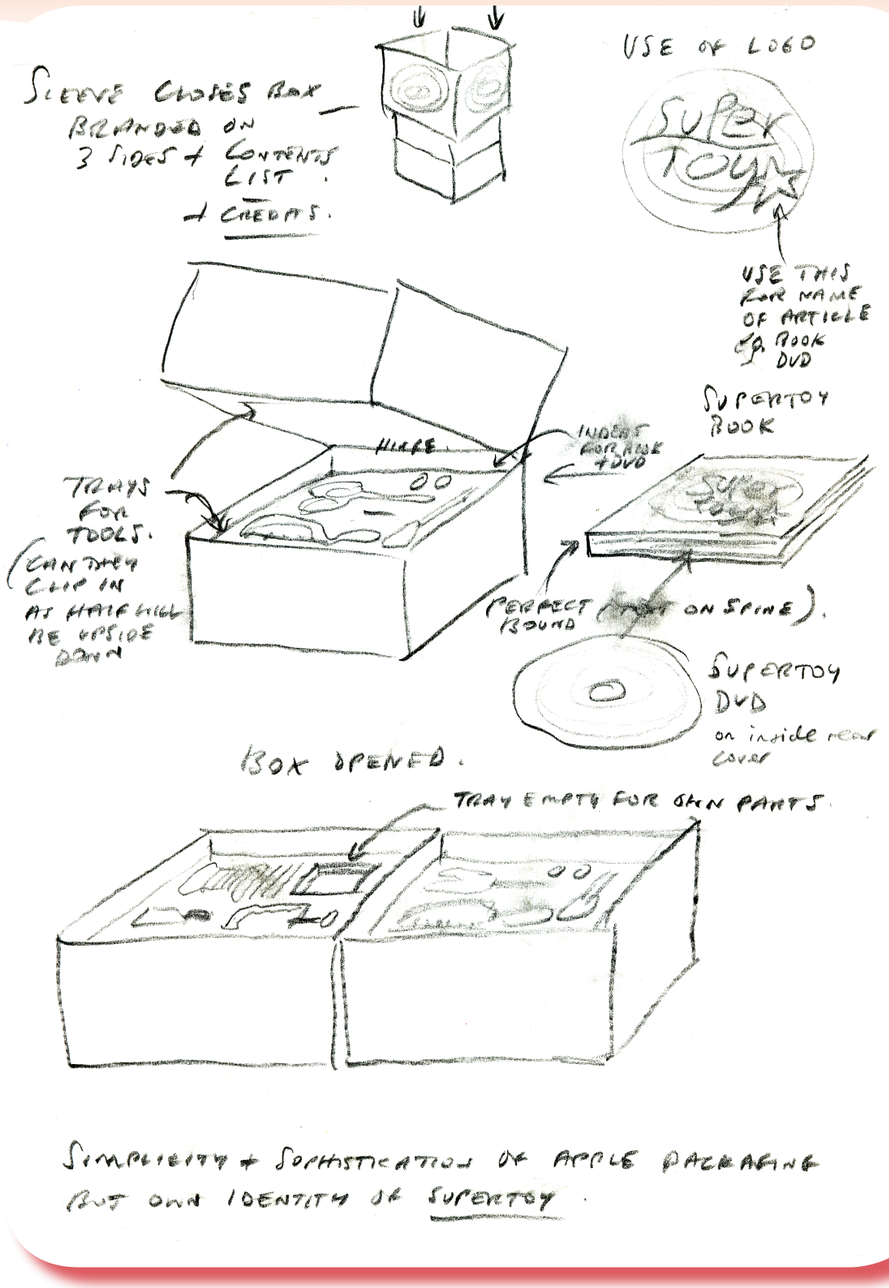
Initial Concepts

What Was Wanted!



the sheet to the left was given to "design" for. From these 3 design concepts I have taken the essence, in effect a box and designed 3 products that are manufactured in different ways.

Although we were given the idea of using cardboard and making a I pod packaging box this wasn't possible as it would massively reduce the product life.

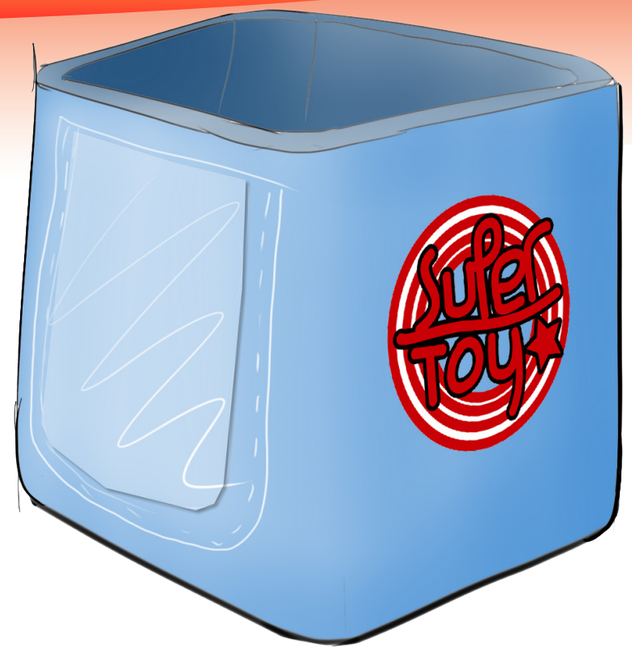
In these concepts there are no specifics when it comes to tool design, as we will need to enquire into safety requirement for the toy. But when designed they will fit a SuperToy brand.

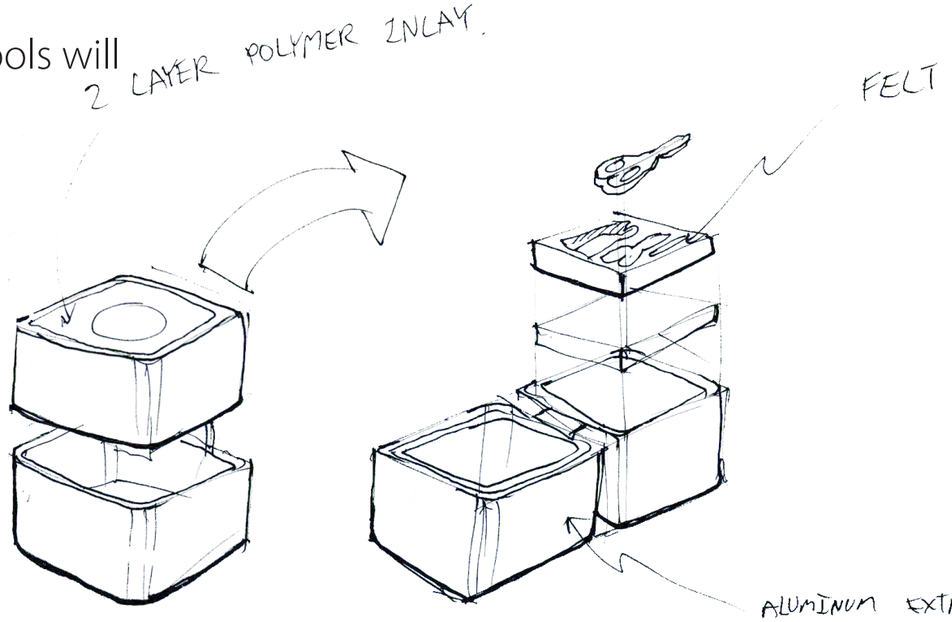
Initial Concepts

SuperToy[1]

SuperToy[1] will most likely be the most expensive concept, yet it will have the longest product life. The box is a aluminum extrusion, with a polymer coating at the ends.

Inside the custom made SuperToy tools will be stored in a removable felt inlay.

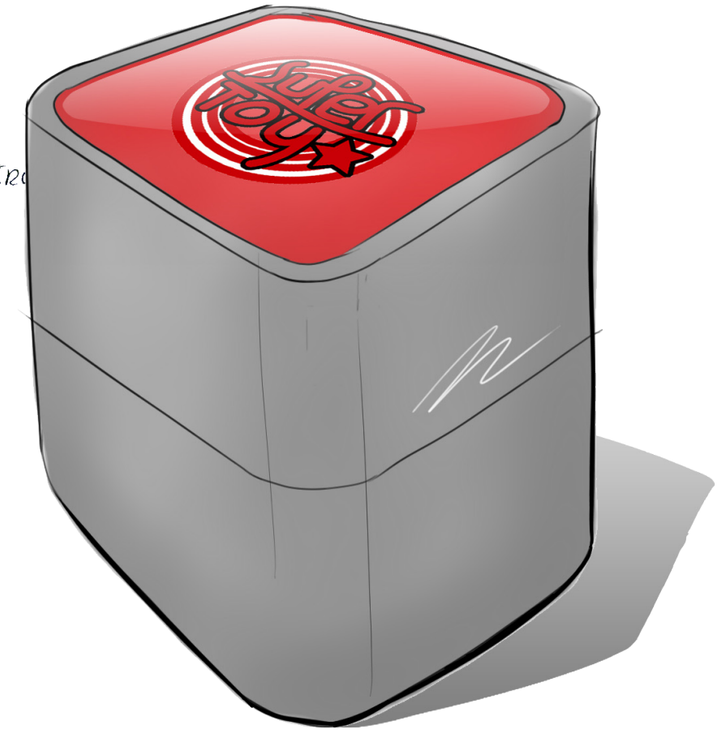




Features

a mac mini inspired SuperToy, built on the existing fondness of the Apple packaging case. This SuperToy will have the same features as the apple box with subcomponents but with sub components that will be more secure and will last longer than the card box.

The kit will contain all of the required components from the PDS. These would be styled in a further refinement of the concept but they would fit in with the current SuperToy[1] style.

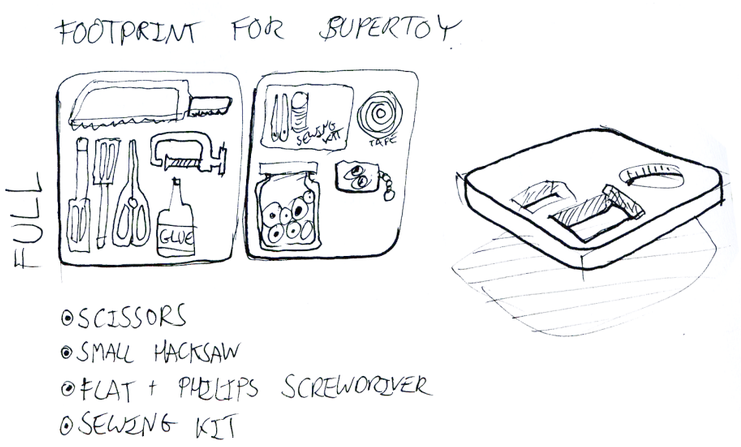


Positives

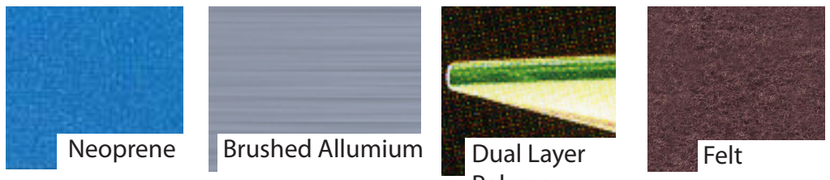
- Stylish
- Modern
- Storage and tools
- Long Life
- Large market appeal

Negatives

- Expensive
- Not environmental friendly
- Complex internal components
- Too much of now
- Require at least a batch manufacture.



Materials



Initial Concepts

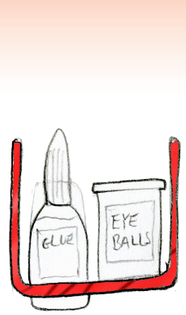
SuperToy²

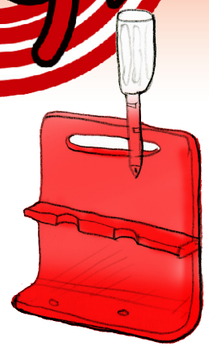
SuperToy² will most likely be the 2nd most expensive concept, being the most expensive to produce. The box is a plastic injection molding, with a different surface finish on key areas on the product.

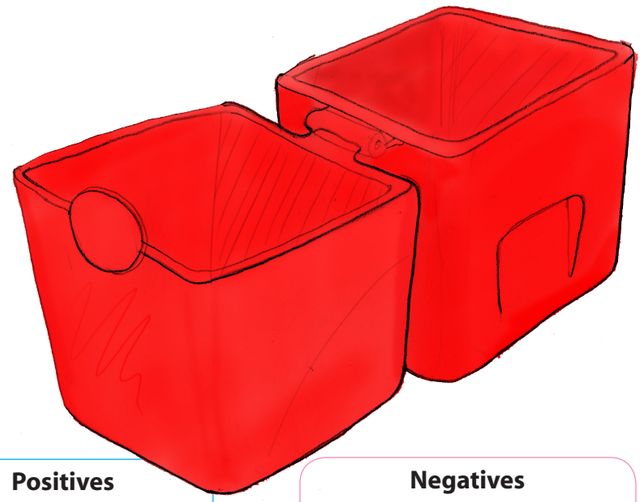
Inside the custom made SuperToy, tools will be stored in a injection molded removable shelves.

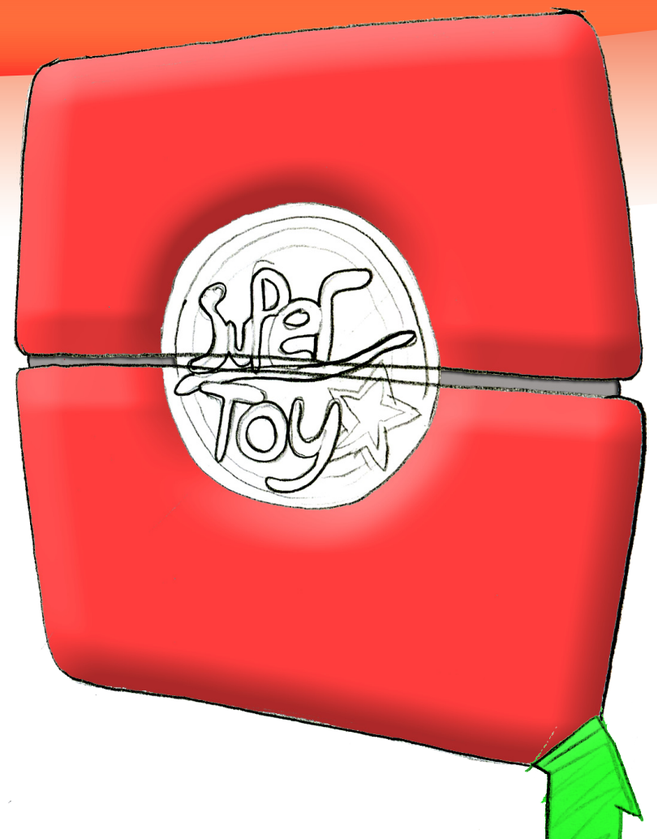
Features

a complete injection molded case with custom inlays, and hidden shelves. The Supertoy² could possibly be made from a bio-polymer to make it more environmentally friendly Or it could use high tech modern plastics with dual polymer to give the outside of the product a high gloss.









Positives

Suitable for mass production

Long product life

Hidden part

All custom made parts.

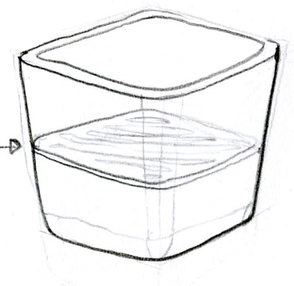
Negatives

Expensive

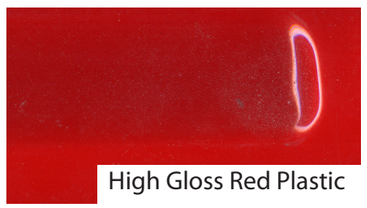
not environmental friendly

Complex internal components

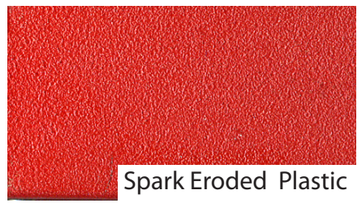
False Bottom
To hide secret components



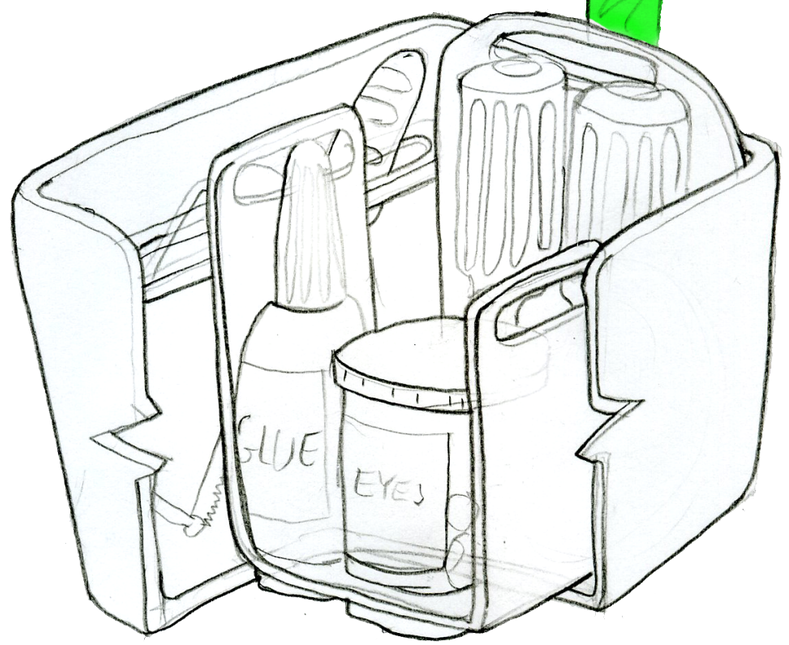
Materials



High Gloss Red Plastic



Spark Eroded Plastic

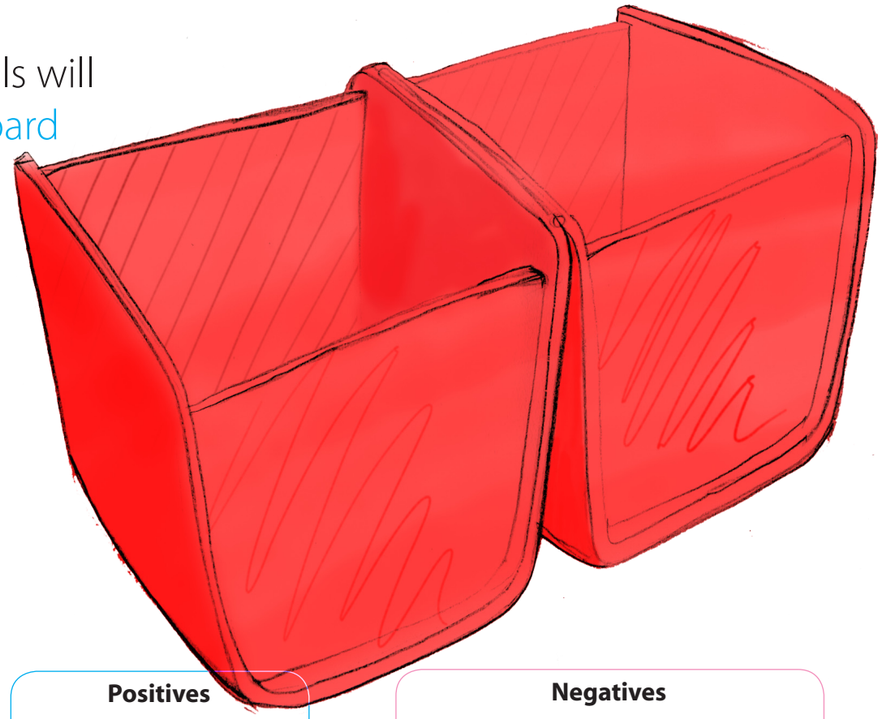


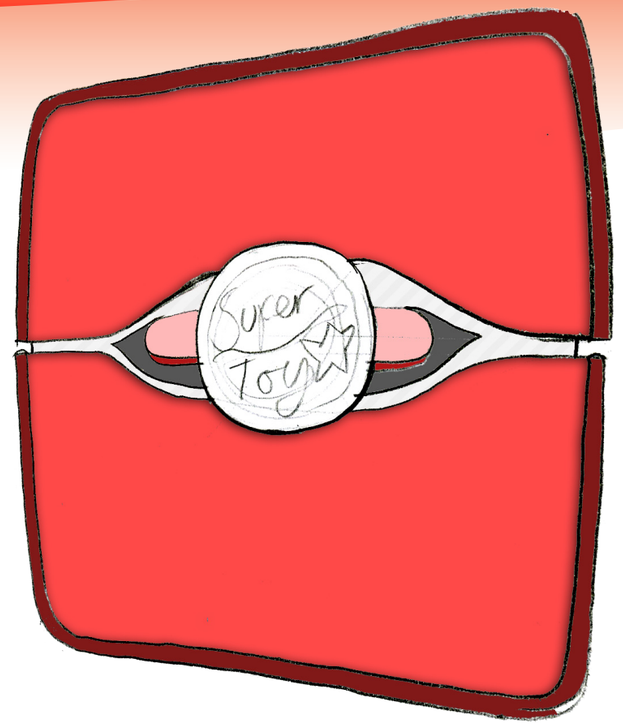
Initial Concepts

SuperToy³

SuperToy³ will most likely be the cheapest concept, both in materials and manufacturing technique. The box is a thermo-formed recycled plastic sheet.

Inside the custom made SuperToy tools will be stored within a custom recycled cardboard inlay that will form to the tool.





Features

The cheapest and closest to the specified product and the PDS. This product is environmentally friendly as its uses a range of recycled materials. The box and hinge mechanism will be one of the hardest parts of this product to design, but there are many possible solutions.

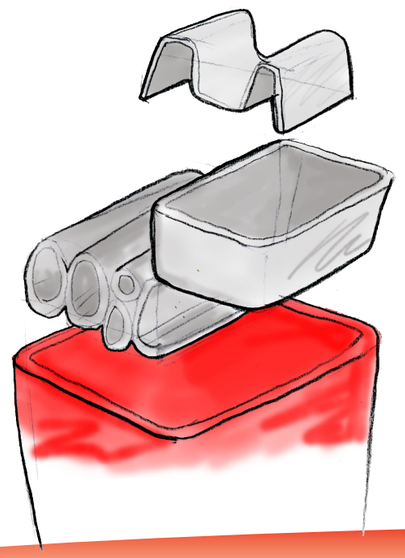
This SuperToy will be the easiest to produce but the quality would have to be of exceptional standard to make this seem to be a quality product as a result or the recycled materials which are often perceived to hold a lower value.

Positives

Environmental Friendly
Ease of manufacture
Storage and tools
Long Life
Large market appeal
Cheap

Negatives

Quality will be in the design solutions
Problems with Hinge
Cardboard could shorten product life
Could look cheap

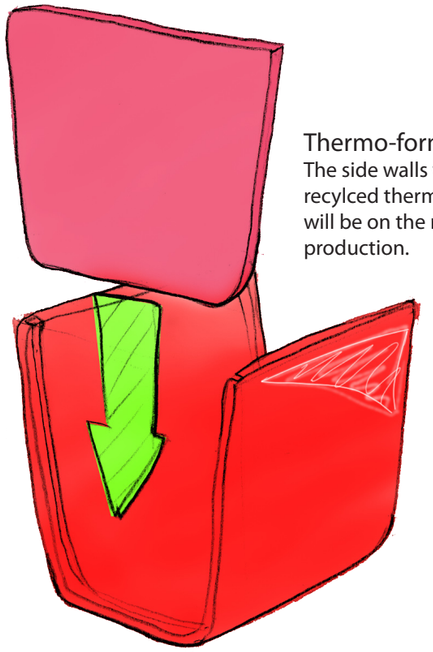


Recycled Cardboard
The internal components are made from recycled cardboard.

Materials

Cardboard

Recycled Plastic sheet



Thermo-formed Construction
The side walls will be made from recylced thermo-formed plastic, this will be on the most easiest methods of production.