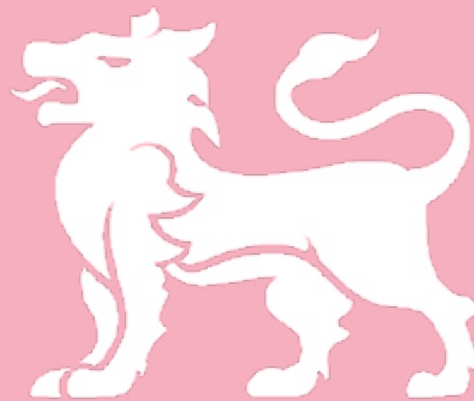


ALEGRA

BRINGING JOY TO YOUR HOME



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| Alegria - Bringing happiness into your home through the integration of colours |

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PROJECT CONTEXT

With 1 in 4 people currently suffering from mental disorders and only 1 in 8 seeking help, it is vital that as designers we help make a change.

Studies have found that people who described their homes as stressful due to clutter and lack of organisation were more stressed than those who kept their homes organised and utilised storage. Also, happiness indexes show Scandinavian countries scoring highly due to them placing a lot of value on the storage within their homes.

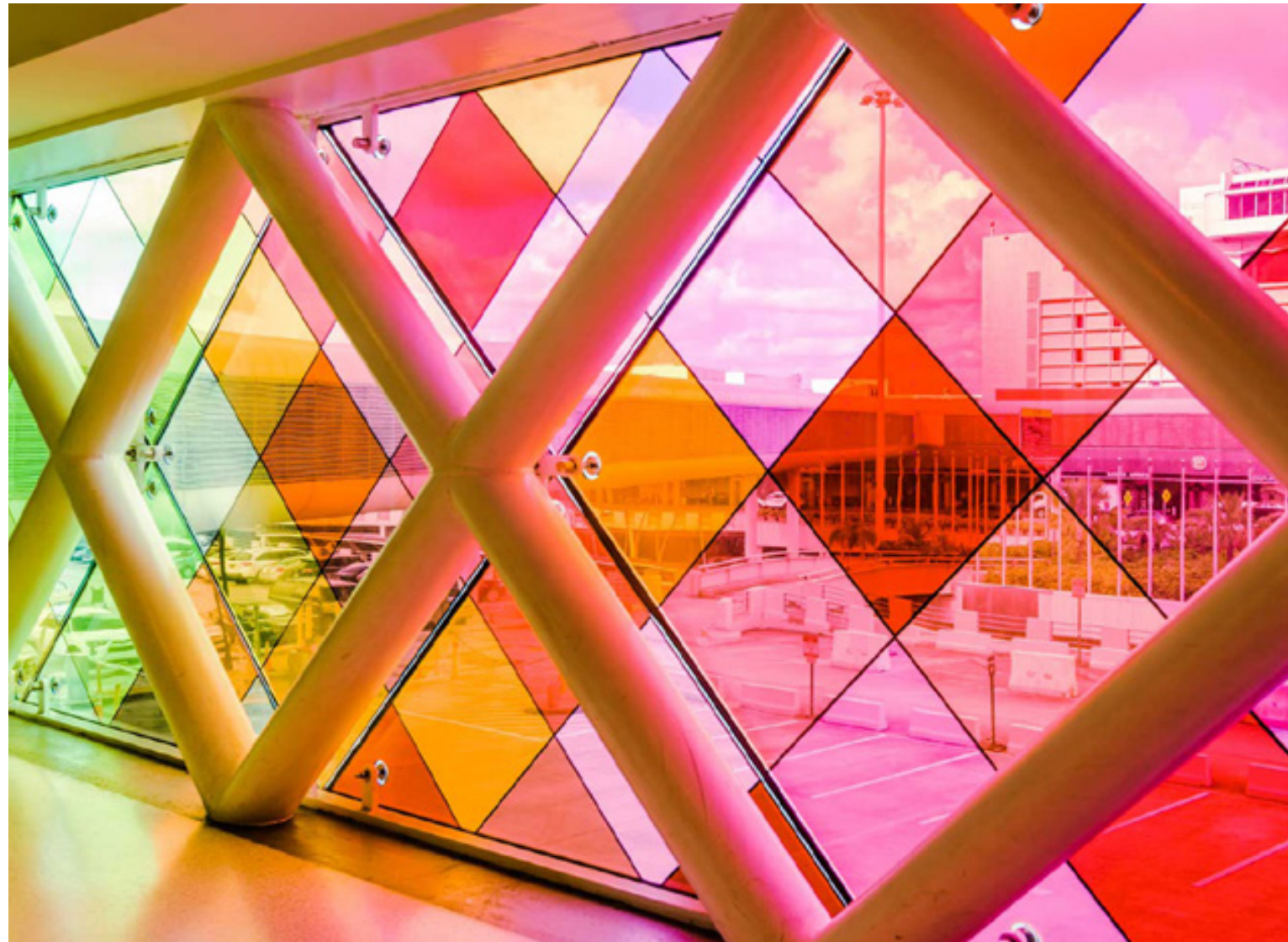
Along with organisation colour has also shown to help improve mood and mental health. Colours have the ability to instantly change mood and atmosphere for little to no cost. Research carried out by psychologists suggests that warm colours help to improve well-being by creating a calming environment. However colours impact everyone in different ways, with gender, culture and upbringing all playing a significant role in its psychological impact.

DESIGN BRIEF

Design a storage product aimed at adults and homeowners which helps to improve mood and mental health.

The concept should be interactive and incorporate colour in order to encourage the users to utilise the storage area and help keep the clutter within their homes to a minimum - helping improve their mood.

This product shall be batch produced to ensure a high quality product is achieved and it will be aimed towards the high end market.





CONCEPT OVERVIEW

Alegra is a plywood moulded wall shelf, which utilises colour to enhance people's mood and mental health. The shelf features interchangeable opaque and transparent acrylic sliding doors which merge together to create different shades of colour. The combination of transparent and opaque acrylic provides privacy, whilst also allowing part of the shelf to be exposed.

Alegra also offers the option of several different coloured doors to choose from, as well as the choice of three veneers - providing the consumer with the opportunity to vary the colour options to suit their mood and current environment.

TARGET MARKET

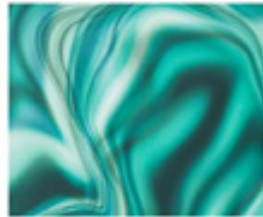
This product will be targeted at adults and homeowners and aimed towards the mid to high end market, whilst still retailing at an affordable price to make it as accessible as possible. It is targeted towards this specific market in order to help reduce the mess within homes, as well as helping to improve mental well-being through the incorporation of colour.



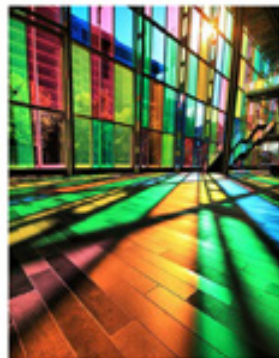
INSPIRATION



Reflection



Colour
Layering

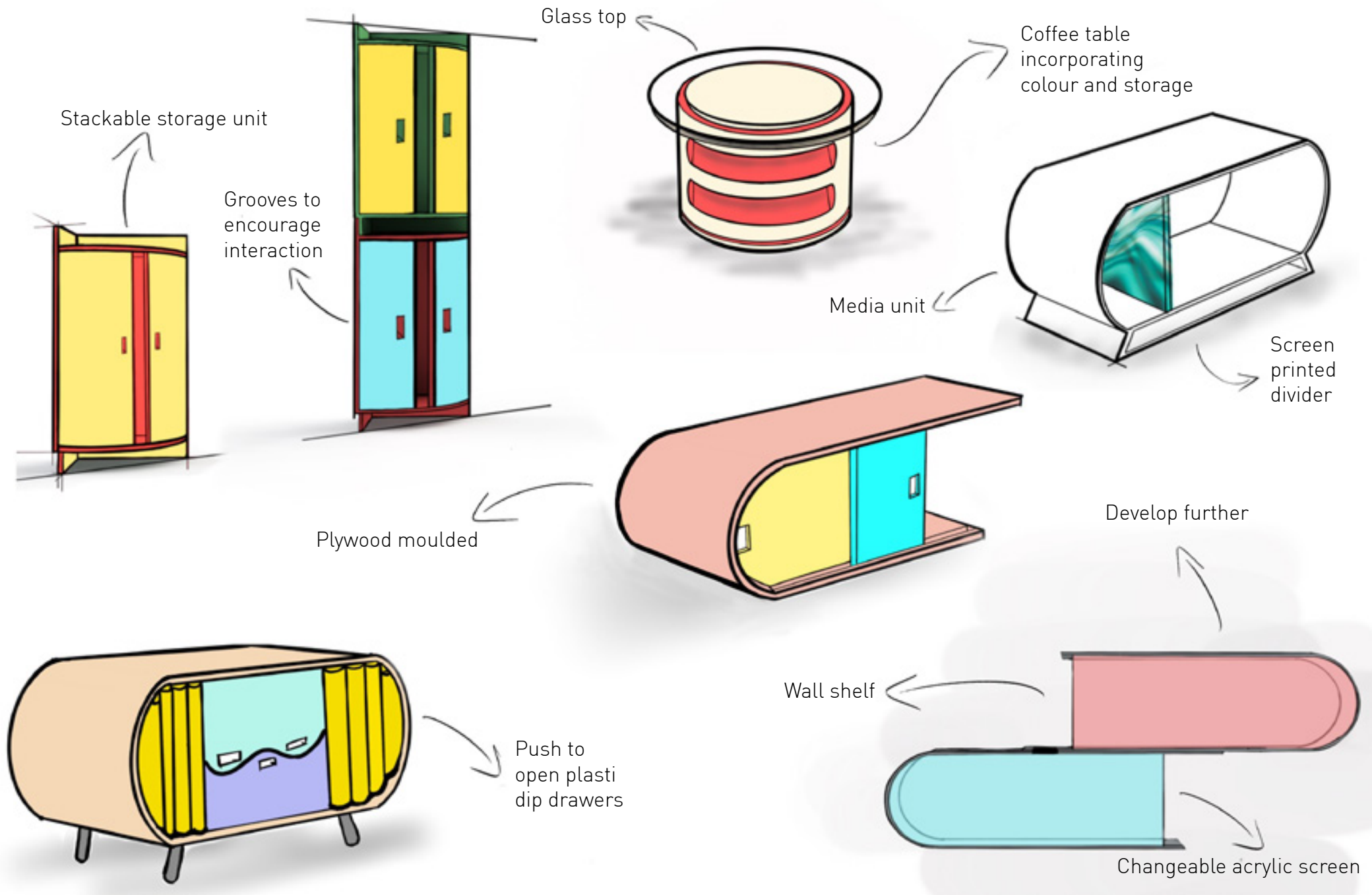


Patterns

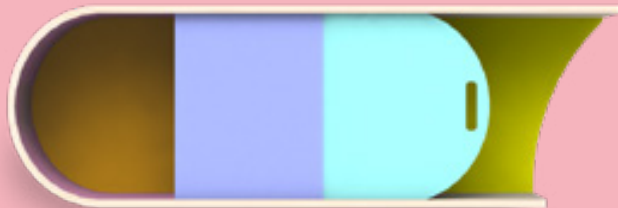
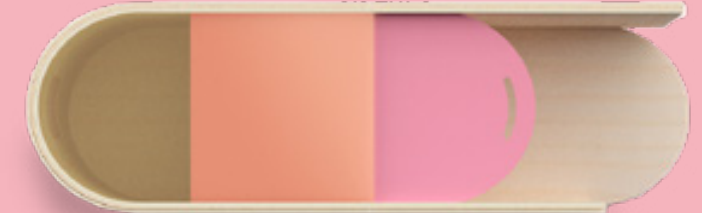
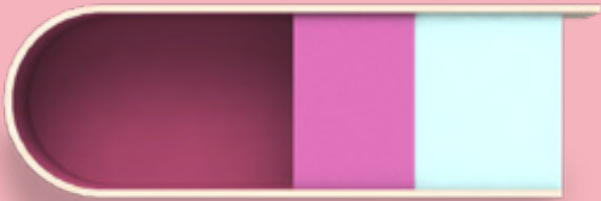
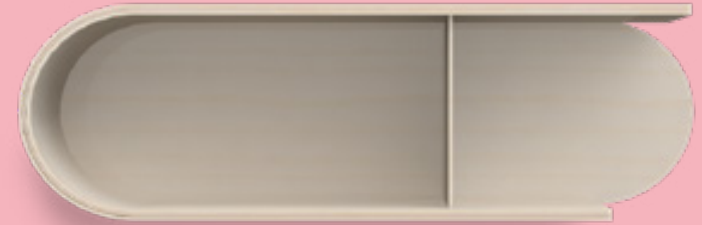
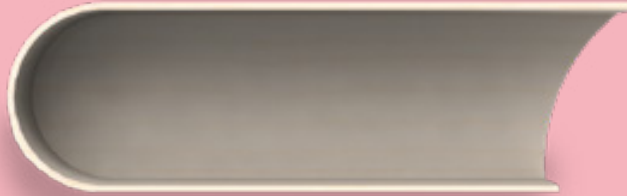
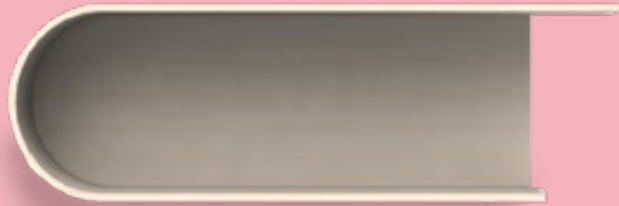


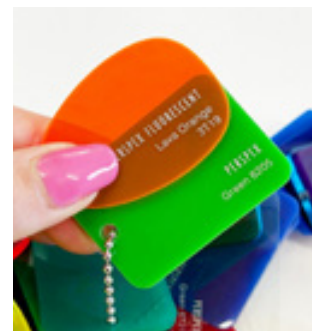
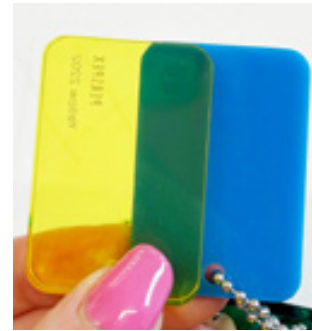
INITIAL IDEAS

My research report findings led to the development of colourful storage concepts.



DEVELOPMENT



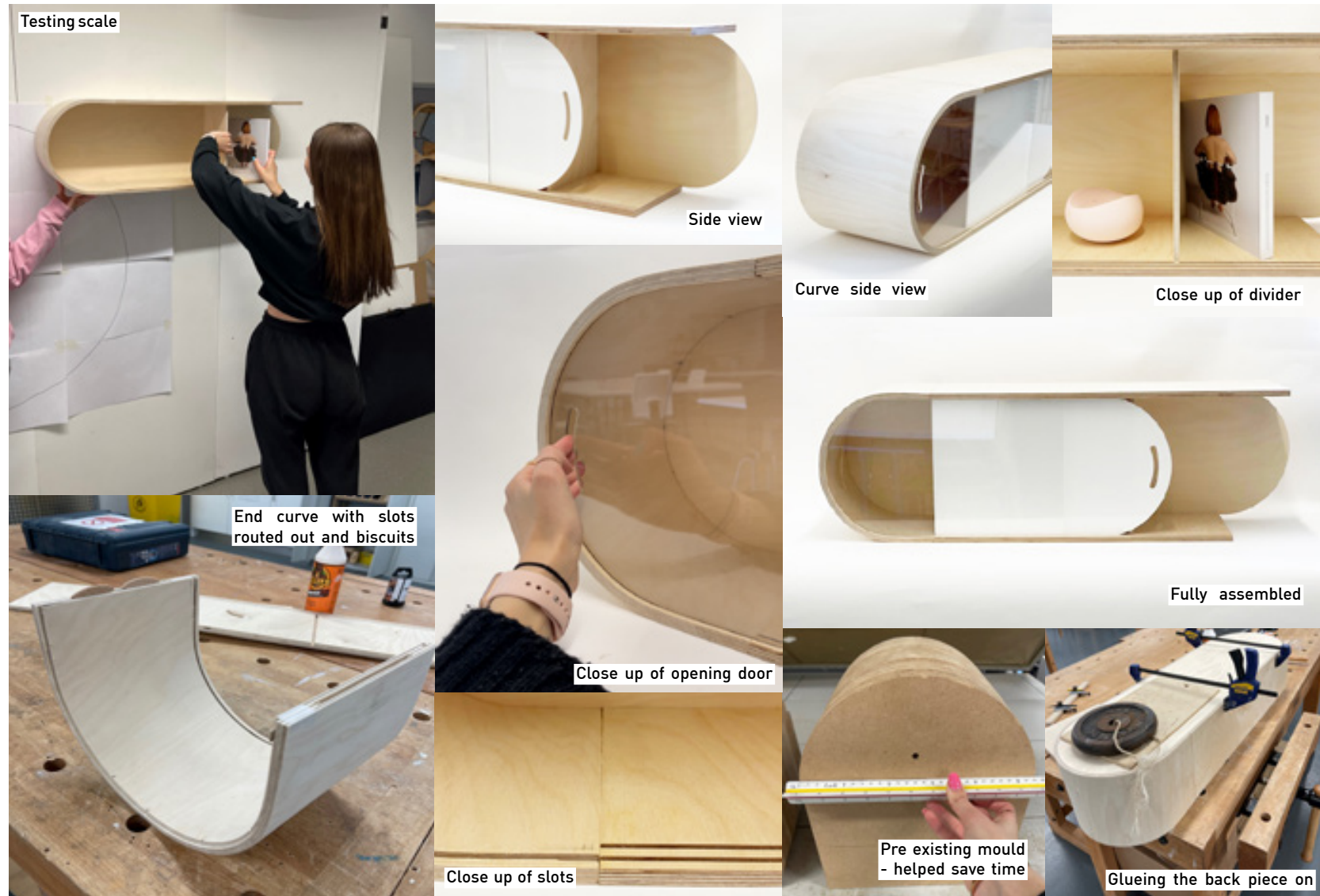


COLOUR COMBINATIONS

Acrylic samples helped form part of the design process by allowing me to see which combinations worked best. The transparency of the acrylic was equally as important as the colour, so after testing the overlapping of different combinations it was decided that the doors would be made up of 2 colours, with 1 transparent and 1 opaque.

1:1 TEST MODEL

Despite limited access to the workshops a 1:1 test model was still able to be produced. Making this model highlighted problems that would not have been noticeable on CAD renders - such as the fact the shelf was not deep or tall enough. As seen in the 'close up of opening door' picture this model allowed me to test and prove that the doors slide smoothly. Also, during the manufacturing of this model it became clear that making the outer shell in 3 parts is extremely time consuming. In industry there will be the option to mould it in one piece, using a two part mould.



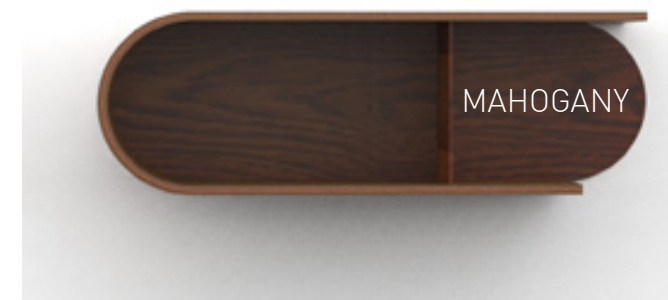
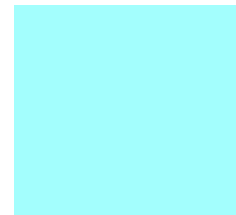
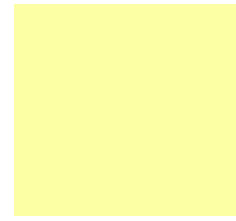


A L E G R A

THE FINAL OUTCOME

FINAL MATERIAL CHOICES

Alegra aims to be as customisable as possible to allow the user to create a sentimental product that makes them happy. The shelf is available in birch faced plywood as well as cherry and mahogany veneer and the consumer can also choose between the 6 colours seen to the right for their transparent and opaque acrylic doors.



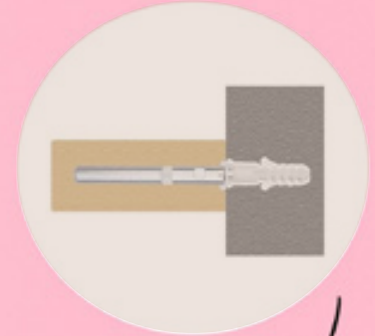
MANUFACTURE & WALL FIXINGS



5 sheets of 3mm birch plywood moulded over MDF mould and then attached to top and bottom piece with biscuit joints.



5mm birch plywood divider slots in - cut on 3 axis CNC.



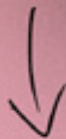
Attached to wall using 4 10mm diameter floating wall brackets which will support up to 70kg (2 at the top, 2 at the bottom).



3mm transparent and opaque acrylic doors, cut out on a laser cutter.



15mm birch plywood, cut on a 3 axis CNC.



5mm birch plywood back piece, cut on a 3 axis CNC and then glued into a recess at the back.



5mm deep slots produced on a 3 axis CNC router



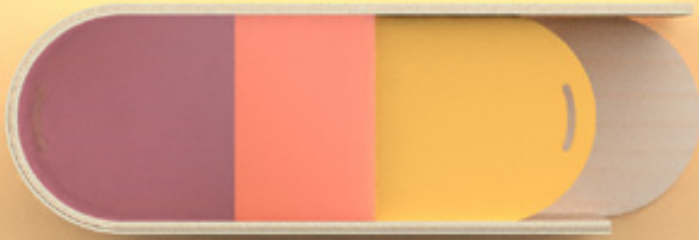
*outer shell can also be produced in one part using a two part mould and a plywood bending press.

COSTINGS

COST OF ONE OFF			
COMPONENT	MATERIAL	STANDARD PRICE	PRICE PER OBJECT
Curve	3mm Birch Face Plywood	£21.88 per sheet (1220x2440mm)	£4.50
Top Piece	15mm Birch Face Plywood	£44.26 per sheet (1220x2440mm)	£2.45
Bottom Piece	15mm Birch Face Plywood	£44.26 per sheet (1220x2440mm)	£2.43
Mould	MDF	£85	£85
Opaque Door	3mm Opaque Acrylic	£5.25 (600x400mm sheet)	£5.25
Transparent Door	3mm Transparent Acrylic	£5.95 (600x400mm sheet)	£5.95
Divider	5mm Birch Face Plywood	£24.26 per sheet	£0.50
Back Piece	5mm Birch Face Plywood	£24.26 per sheet	£2.00
Wall Fixing	Stainless Steel	£3.50	£14
FINISH			
All Plywood Parts	Clear Matt Lacquer	£9 per 400ml	£2.25
MACHINE COSTS			
Top & Bottom Piece, back board, and divider	3 Axis CNC	£45 per hour	£45
Doors	Laser Cutter	£30 per hour	£7.50
Curve	Bag Press	£30 per hour	£60
LABOUR COSTS			
Plywood Parts	Sanding	£10 per hour	£10
Final Product	Assembly	£10 per hour	£10
TOTAL COST			£259.08
RETAIL COST		+300%	£749.24

COST OF 100 OF				
COMPONENT	MATERIAL	STANDARD PRICE	PRICE PER 100	PRICE PER OBJECT
Curve	3mm Birch Face Plywood	£21.88 per sheet (1220x2440mm)	£360	£3.60
Top Piece	15mm Birch Face Plywood	£44.26 per sheet (1220x2440mm)	£196	£1.96
Bottom Piece	15mm Birch Face Plywood	£44.26 per sheet (1220x2440mm)	£194.40	£1.94
Mould	MDF	£85	£850	£8.50
Opaque Door	3mm Opaque Acrylic	£5.25 (600x400mm sheet)	£420	£4.20
Transparent Door	3mm Transparent Acrylic	£5.95 (600x400mm sheet)	£476	£4.76
Divider	5mm Birch Face Plywood	£24.26 per sheet	£40	£0.40
Back Piece	5mm Birch Face Plywood	£24.26 per sheet	£160	£1.60
Wall Fixings	Stainless Steel	£3.50 per bracket	£1399	£13.99
FINISH				
All Plywood Parts	Clear Matt Lacquer	£9 per 400ml	£180	£1.80
MACHINE COSTS				
Top & Bottom Piece, back board, and divider	3 Axis CNC	£45 per hour	£135	£1.35
Doors	Laser Cutter	£30 per hour	£120	£1.20
Curve	Bag Press	£30 per hour	£3600	£36
LABOUR COSTS				
Plywood Parts	Sanding	£10 per hour	£70	£0.70
Final Product	Assembly	£10 per hour	£30	£0.30
TOTAL COST			£8230.40	£82.30
RETAIL COST		+500%		£411.50

BRANDING & RETAIL



Branding plays an important role in helping finalise the product in preparation for it to be sold by retailers, so I have designed - helping to tie it all together.



Alegra's logo is made up of the six colours that the acrylic doors are available in, with each circle overlapping to represent the integration of colours created from the merging of the doors.

MADE.COM[®]

This product would be sold by the company Made.com as the design language of their products is similar to that of Alegra's.



Despite the first choice company being Made.com this wall shelf also matches the design identity of other companies, such as the high end store Heal's where it would be manufactured in much smaller batches, to an extremely high quality and sold at a higher price.

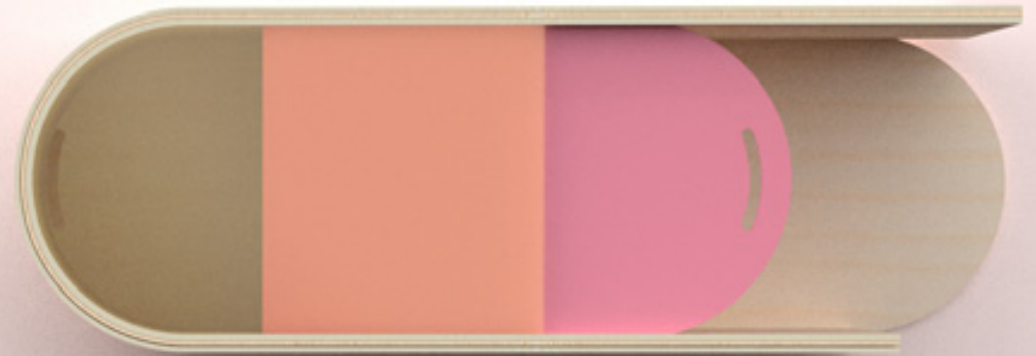
HEAL'S

Another company this shelf could be sold by is John Lewis - a mid to high range company where the products sold feature within a more affordable price range. If sold at John Lewis Alegra would be mass produced in order to reduce the retail cost.

PRODUCTS FUTURE

The Alegra shelf is just one example of how design can contribute to improving people's well-being. This product is designed to subtly make people happier through the use of colour and storage, and unlike a mood lamp the shelf disguises its main aim. The future for this project is far from dull, moving forward I hope to:

- Collaborate with a manufacturing company to produce a high quality final product.
- Produce a range of products that incorporate colour and all have the same aim - to improve mental well-being.
- Design and manufacture a packaging design.



**“Colour is a power which directly
influences the mind and soul”**

- Wassily Kandinsky -



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