

GCSE Product Design at SWGS

LASER CUTTING I decided to try and find an alternative, and therefore modify my product. A slightly transparent, tinted acrylic is fairly similar to stained glass due to its shaly transparent properties. This makes it a great alternative to glass and will be a modification to my end product. Also it is much more efficient to use as I can simply laser cut my desired pieces out using the laser cutter.

After testing the laser cutter with off cuts of acrylic, testing different powers and speeds, and comparing different levels of transparency and colours I came to some set decisions for my end product.

GLUING ACRYLIC After some brief research and testing, tensoor cement was decided to be the best suited glue to use to stick the acrylic pieces together. It applies easily, dries quickly and it is well suited to glue plastic together.

I initially tried applying the glue with a brush however the proved difficult and the application was of poor quality which was clearly noticeable once dry. A thin brush proved much better.

I will set the laser cutter to power = 100 and speed = 0.7. Based on my target audience, and design movement along with colours that compliment I have chosen a slightly transparent green and blue as well as mirror acrylic.

In my design specification I wanted my end product to reflect both traditional and modern themes. The acrylic and especially the mirrored Perplex acts as a great way to modernise the traditional wooden jewellery box - while still involving art deco's core themes of geometrics.

AFTER GLUING My prediction of needing a base to support the acrylic pieces were confirmed. Although the tensoor cement I used had dried and was strong, the design still needed support to stop it from bending.



A new Perplex piece had to therefore be designed to act as a support. I tested between a white opaque Perplex and a mirrored one. The mirrored Perplex gave a glossy, luxurious finish to the overall design as the slightly transparent pieces seemed to reflect off the mirror. As my specification involves a high end luxurious item, it was suited for the requirements. Above is the design of the new Perplex piece.

USING ROD



USING BRUSH



Above to the left is without the mirrored support and to the right it was the mirror.

Task Analysis

De Sol (1917-1921) In response to the deconstruction of WWI, it was a new way of thinking and order and harmony. This involving abstract yet simplified designs, long vertical and horizontal lines and flat surfaces. The resulting colours were black, white and the primary colours. This would be the perfect design to contrast using stained glass due to its simplicity and use of elongated simple shapes. However there isn't very much variation in the composition to allow myself to express a unique, interesting design.

Arco and Galle Similar to art deco, it uses nature inspired forms as well as earthy colours. It uses decorative and intricate designs which give the impression of high end luxury products. This is an aspect that I want to include in my product however it does not meet the complexity as well as using long straight lines as it is extremely hard to do.

Temple It expresses individuality and modernism using light, contrasting black colours. It has often been referred to as 'brutalist' which is not positive since luxury customers would therefore approach into buying a Temple styled jewellery box as it could greatly reduce potential target audience.

Art Deco (1920-1930) Inspired by cultures and traditional values, its aim is to work with modernity. It is significant in detail and elegance with curving and organic lines which enhance industrial structures using decorative arts. It focuses on bold traditional and organic which would give a high and luxury look to my product and could be easily applied to the modern look of the jewellery box. It is hard to incorporate the design movement to the box, since detailed and curved lines are not suitable to integrate with stained glass.

Art Nouveau (1890-1910) Inspired by nature and traditional values, its aim is to work with modernity. It is significant in detail and elegance with curving and organic lines which enhance industrial structures using decorative arts. It focuses on bold traditional and organic which would give a high and luxury look to my product and could be easily applied to the modern look of the jewellery box. It is hard to incorporate the design movement to the box, since detailed and curved lines are not suitable to integrate with stained glass.

Context: Designer Influences

The work of a specific artist, designer or architect movement could be the source of ideas of a new range of products aimed at a design conscious consumer market. When comparing the task you should ensure that the designs developed into prototypes are the closest to existing work that reflect the general style of the chosen source and might be viewed as 'in the style of'.

Gender As the product is a jewellery box, the immediate response is approximately half the population since most boys and men don't wear jewellery and therefore have no interest in a jewellery box. As I have chosen for my product to be based upon the design movement of Art Deco, I can attract both young and older niches (males and females) and both modern and traditional designs.

Design Task 2 A small order company wishes to offer a range of products based upon 20th century design movements. You are required to choose one product range which reflect the essential features of the movement. You will need to investigate a specific target market.

Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

A Half Order Company Once the briefings criteria includes the box for product will be related to customers. I must consider upon which my product can be delivered efficiently. For example weight - when exploring different materials I should consider the weight to strength ratio. A glass lid over wood that is light as well as strong. Also it must be delivered safely without damage and need to consider ways to produce the product especially high materials such as glass. Another materials in the box should be compact and safe as well as being portable. The box could perhaps be delivered in parts where the user would have to put together in order to look delivery space. Or I could consider ways in which I could help my target audience to become as compact as possible.

Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

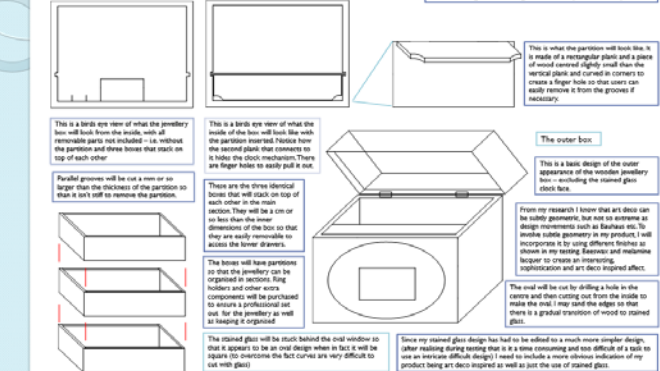
Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

Art Deco I would like to advance on the idea of Art Deco and use the material as a support. I have the idea for the jewellery box and simple glass window would be a simple way to integrate them into my product. For example a lid to the box could be stained glass where I would use power to create an impression of coloured glass. I would like to advance on this idea and include a lock on my jewellery box which would be a simple functional and decorative feature towards my product.

Further and Final Developments

CLIENT FEEDBACK: I asked my clients on their thoughts of my new developed design and they were very pleased. "The way the clock is concealed yet is a sturdy shape and I like the mirror boxes to keep jewellery safe." "I think you need some little details to make the box look more high end looking since the shape is now simpler".



Safety Precautions and Quality Control

Router
Allows for the wood to be routed and being cut accurately. It also catches the majority of saw dust.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Feather fringe
Allows for the wood to be routed and being cut accurately. It also catches the majority of saw dust.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Router
This tool creates the groove. This cut out hole is where it fits and fingers should stay clear of this area as it is the most dangerous part of the router station.

Clamps Several clamps are involved in this process to keep the wood precisely in place so that the router cuts the correct area. Slight inaccuracy will cause the wrong part of the wood to be routed and the two pieces of wood will therefore not have parallel grooves.

