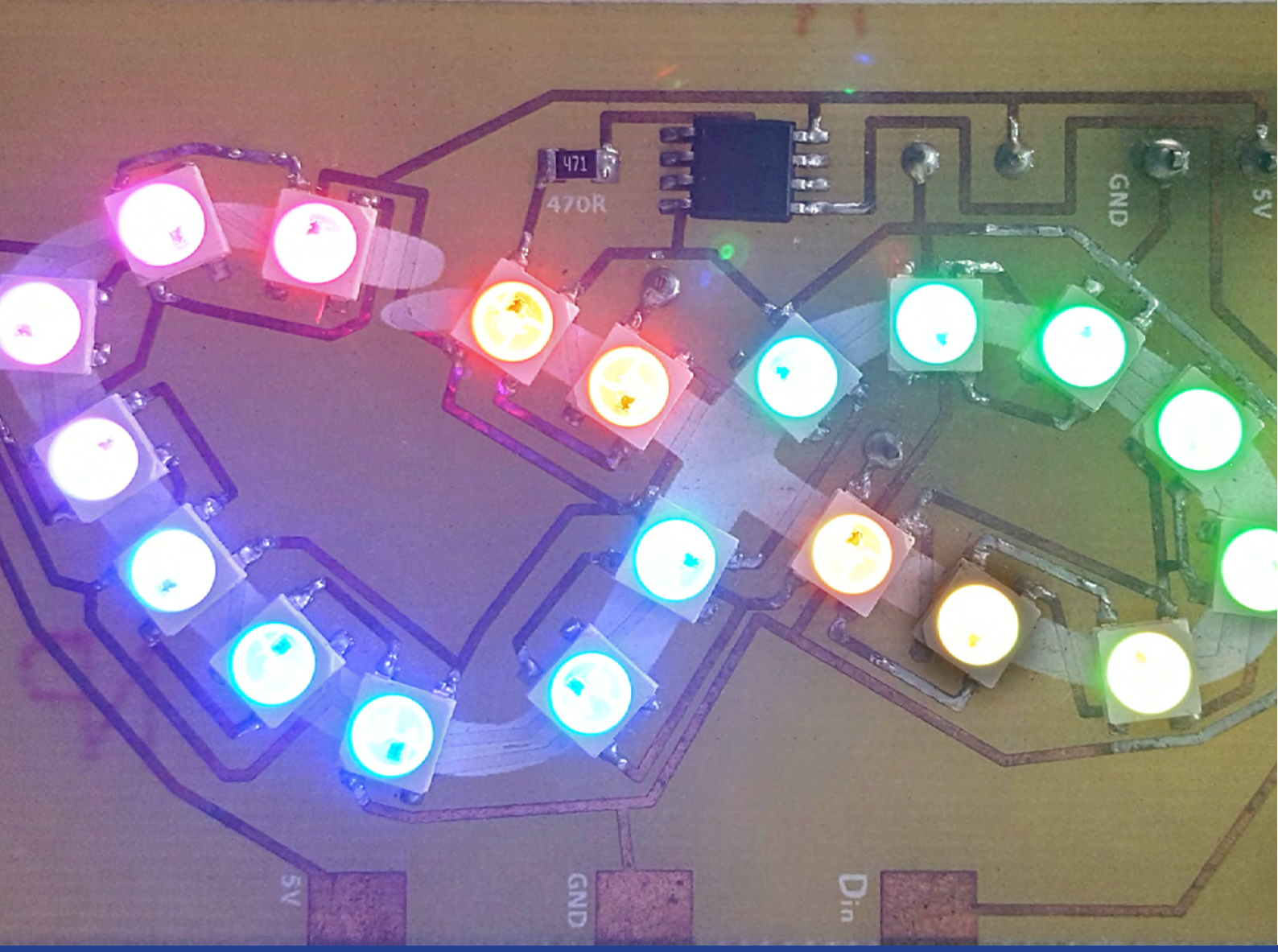
Touch & Print

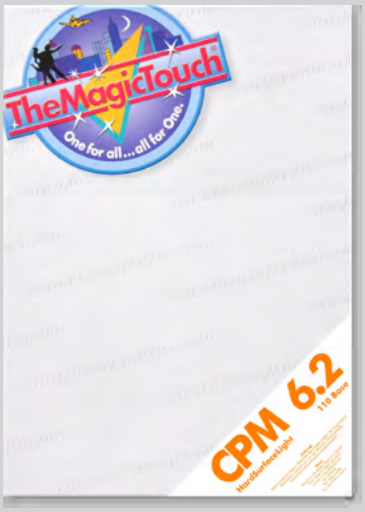
• Design • Create • Personalise

Maker Projects With Heat Transfer Technology



Infinity NeoPixel PCB

This project shows the extend that is possible with a PCB made using heat transfer technology.



Individually neopixels are soldered onto the board to form the shape of a infinity symbol. The arduino used to control the neopixels is a ATTINY85 (SMD version) showing that SMD components are possible.

After etching the PCB, it is possible to do a second round of heat transfer to label the key components on the board.

Infinity NeoPixel PCB

470ohms
SMD 1206

ATTINY85
SMD Version

Heat transfer a second time after etching to print on the labels

Individually Soldered NeoPixels

Infinity Mirror

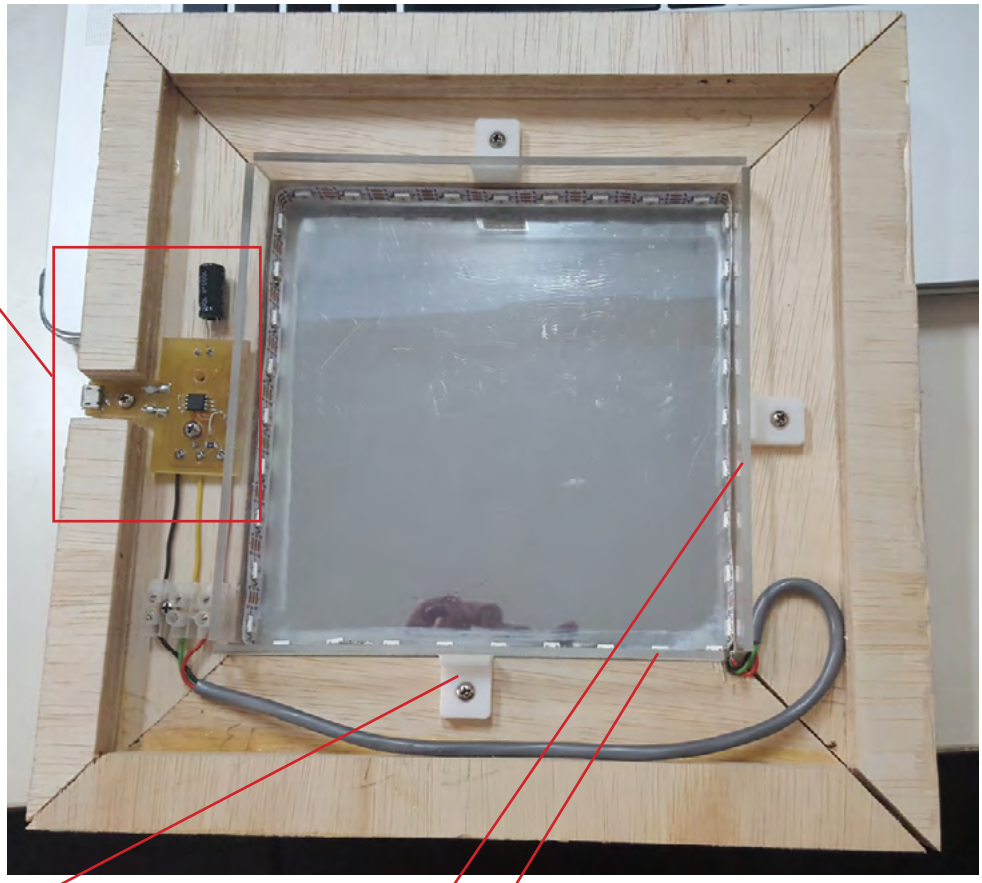
This project shows how we can combine many different kinds of maker skills together to create a product.

Skills include
- Heat Transfer Printing
- Electronics / Soldering
- Wood Working
- Laser Cutting
- 3D Printing

Infinity Mirror

Heat Transfer Printing onto wood with TheMagicTouch RST 9.1 Transfer Media

Custom made PCB made with heat transfer printing

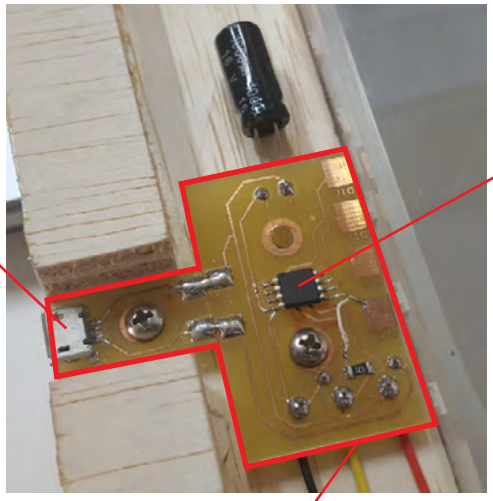


3D printed fasteners

Laser Cut Acrylic

Infinity Mirror

MicroUSB Connector



ATTINY85 Microcontroller to run the NeoPixels

Special shaped PCB to accommodate the wooden frame

Heat transfer printing onto wood

Watch video

https://www.themagictouch.com.sg/videos/play/63

Interactive Touch Board

This project combines conductive paint, conductive fabric, Arduino and Raspberry Pi all together to form an interactive display.

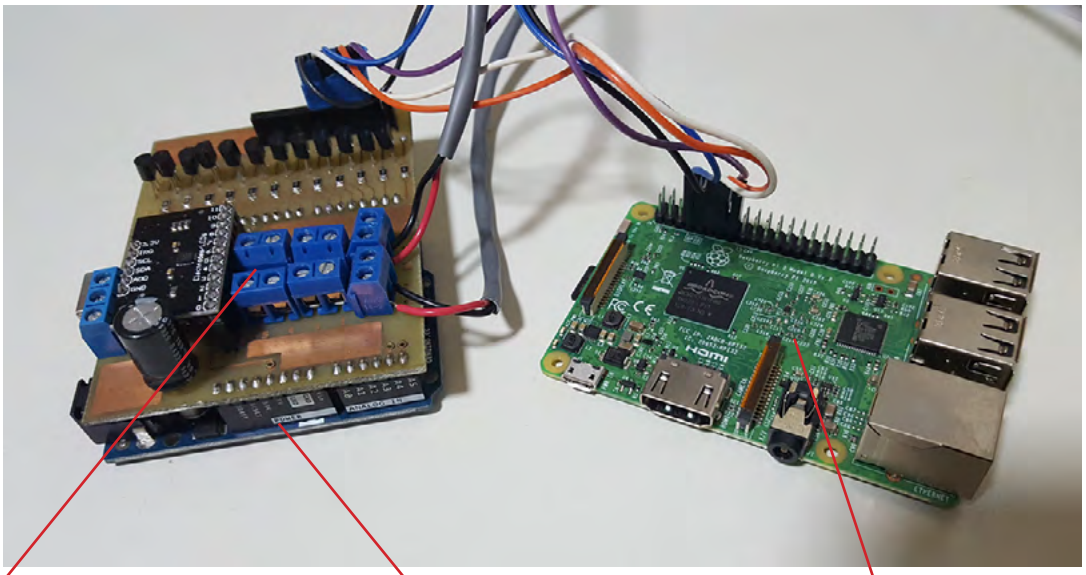
Users can play a video by tapping onto the wooden panel or on the fabric.

Most of the time we are used to a trigger in the form of a push button or a switch. By using alternative conductive materials together with heat transfer we are able to change the way that users interact with a interface.

Interactive Touch Board

Conductive Paint
The icon was first printed on the wood to act as a template

Heat transfer printing onto wood



Custom made Arduino Shield for capacitive touch sensing

Arduino Uno

Raspberry Pi connects to a screen

Interactive Touch Board

Image transfer onto wood and plastic in 15 mins with no machine

Using spray on adhesive together with TheMagicTouch RST9.1 transfer media, it is possible to do an image transfer onto various surfaces such as wood and acrylic without any heat press.

The process is quick and simple and can be done in about 15 mins.

Using RST 9.1 with Liquidtex Gel Medium

Using RST9.1 together with Liquidtex Gloss Gel.

The process will also work using acrylic paint or glass paint.

TAP TO PLAY VIDEO

TAP TO PLAY VIDEO

Heat transfer printing onto fabric

Conductive Fabric

Heat Transfer Flex

Watch video

https://www.youtube.com/watch?v=RQWBa6BvmsM

Wearable Electronics

This project shows how we can add design and colour to wearable electronics so that the end product is more than just thread and LEDs.

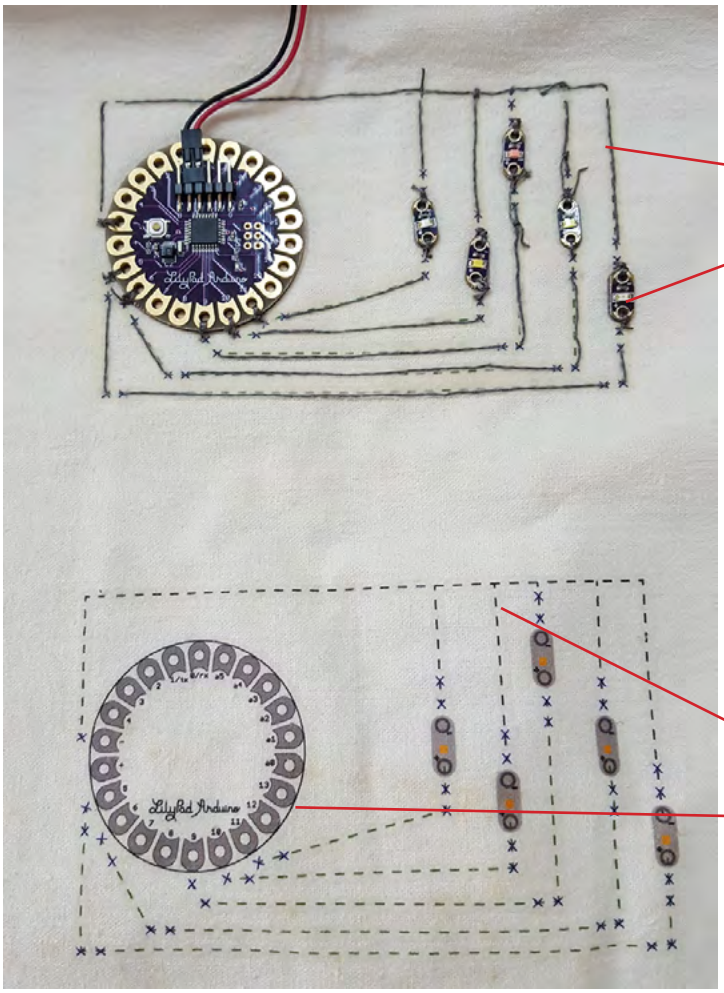
Besides being a design tool, heat transfer is used to print a template and serves as a guide to sew. The template also helps to position the LEDs in the correct position so that they will light up corresponding to the design printed.

Lastly, heat transfer flex film is used as a means to insulate the conductive thread so that the thread will not short circuit to each other when the fabric is folded.

Wearable Electronics

Full colour heat transfer printing onto fabric

Sewable electronics underneath



Conductive thread and LEDs are sewn according to the template printed

Heat transfer printing used to print a template for sewing.

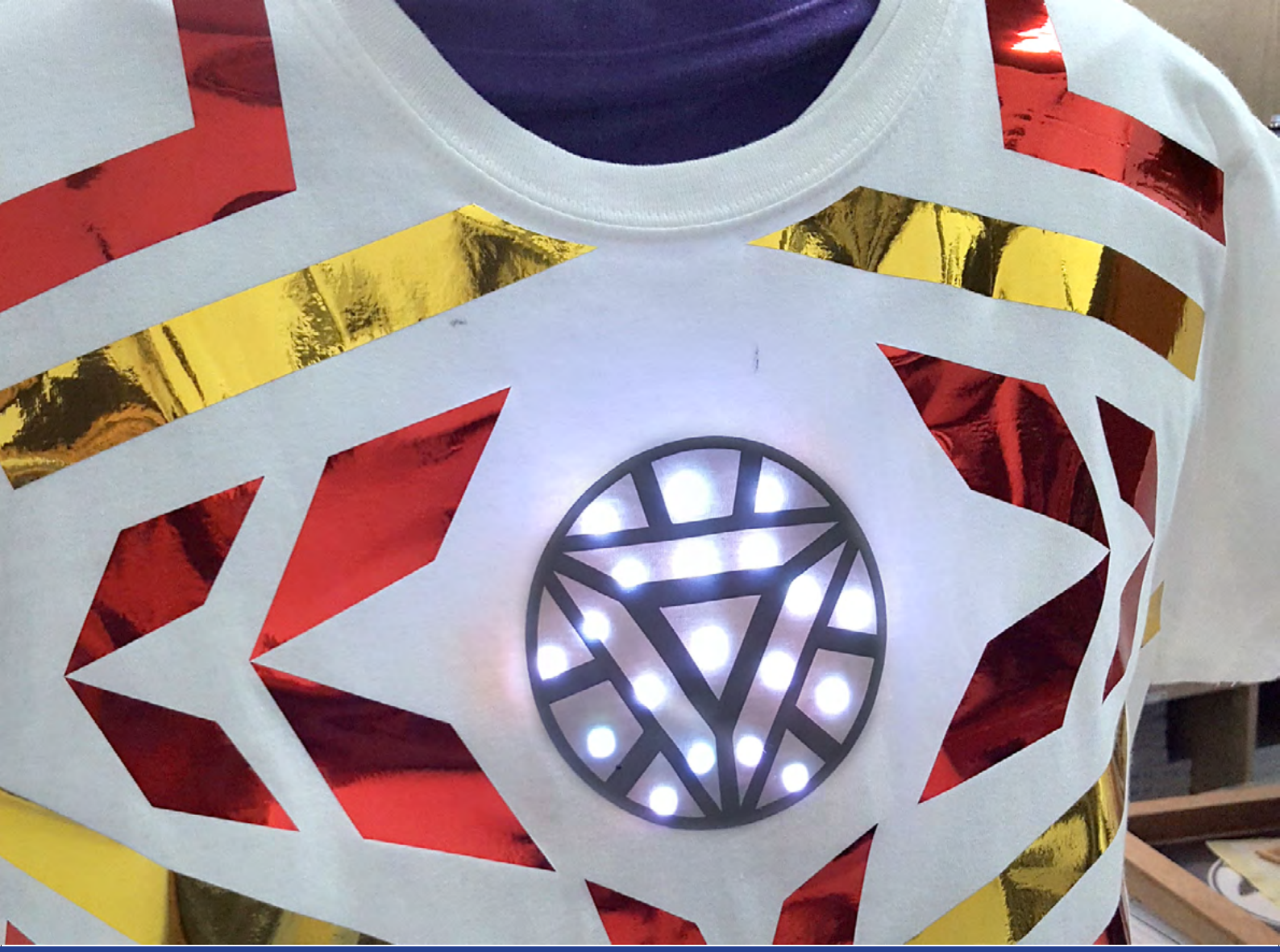
The position of the LEDs matches with full colour design printed.

Wearable Electronics

Heat transfer flex film is cut and pressed on top of the conductive thread acts as a insulation layer.

Watch video

https://www.youtube.com/watch?v=RQWBa6BvmsM



IOT ARC REACTOR

This project shows the different kinds of heat transfer materials to print a T-Shirt with metallic looking finish. In addition, the arc reactor is printed with reflective heat transfer film which will reflect light when a photo is taken with the flash on.

To enhance the effect, a custom made PCB board is made with Neopixels arranged following the shape of the arc reactor.

Adding IOT capability will allow users to change the colour of the Neopixels from their phones.

IOT ARC REACTOR

Custom made PCB with the NeoPixels arranged in the shape of the arc reactor

The PCB is powered by a nodeMCU board to enable it to have IOT capabilities.

IOT ARC REACTOR

Metallic heat transfer films

Reflective heat transfer film will reflect light when a photo is taken with a flash

Watch video

https://www.youtube.com/watch?v=RQWBa6BvmsM

PRINT & SEW

This project is an example of how printing and sewing comes together. Most people are used to the process of having a product first and then printing something onto it.

But to reverse the process and print first then create the product allows for a more creative process. In this example, we show how we can achieve edge to edge printing because we first print onto a cloth and then sew it up into the final product.

Heat transfer printing is used not only as a means to print the design but also as a means to print the folding and sewing lines to sew up the product.

PRINT & SEW

Design is printed on the top

Folding / Cutting / Sewing lines are printed at the back

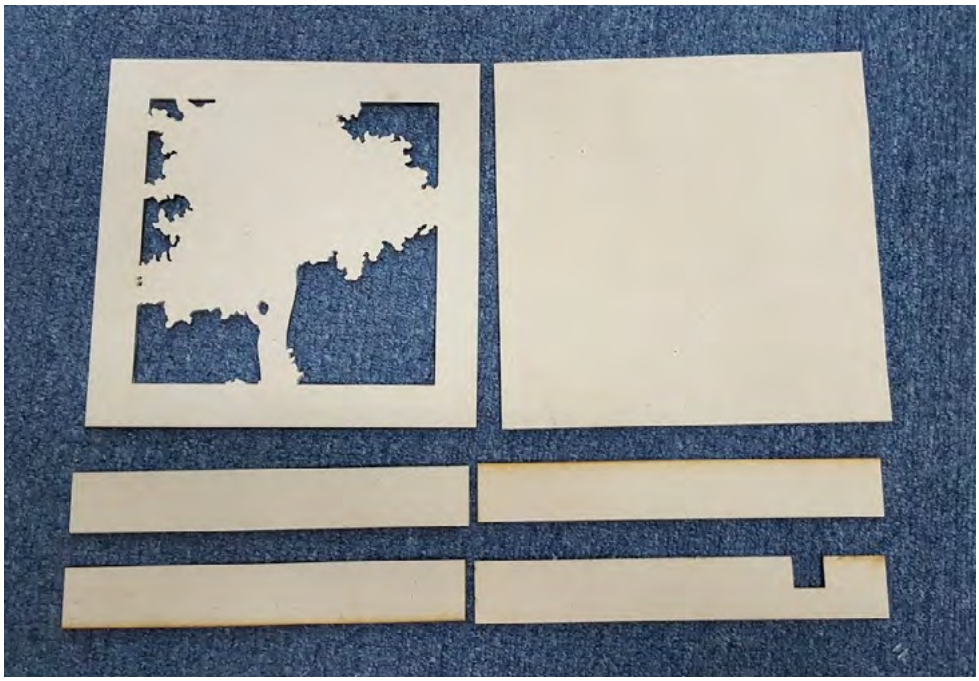
PRINT & SEW

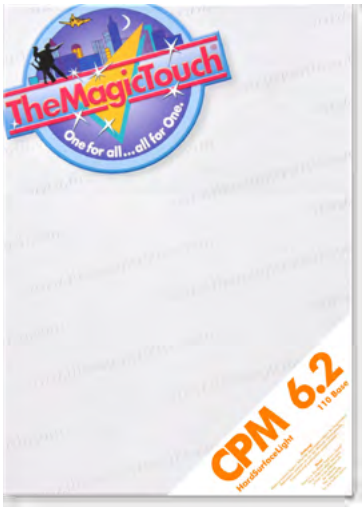
LED LIGHT BOX

This project is an example of how laser cutting a product can be further enhanced by adding a full colour print onto it.

Add some simple LED lights at the back and you have a amazing product.

LED LIGHT BOX



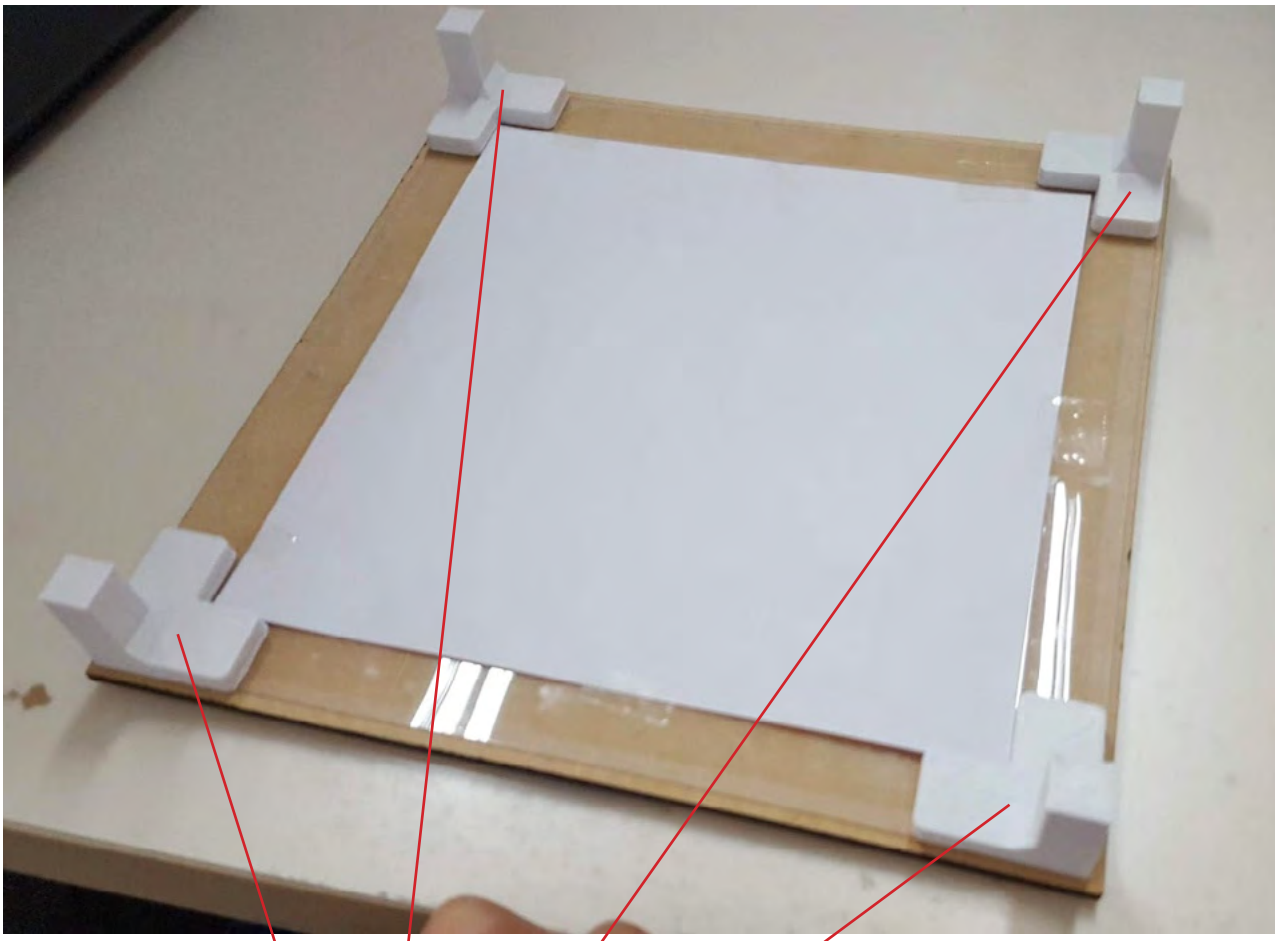


MDF is laser cut to the shape of the design. After that heat transfer printing is used to decorate it in full colour.

Custom made PCB so that we can power it via a USB cable

LED strips are attached to the back

LED LIGHT BOX



3D printing is used to create the spacer

Contact Us

Touch & Print

• Design • Create • Personalise

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