

Chris
Mack -
Pattern,
repetition,
and
relating to
the body



pattern

/'pat(ə)n/

noun

1.1.

2.a **repeated** decorative design.

2.

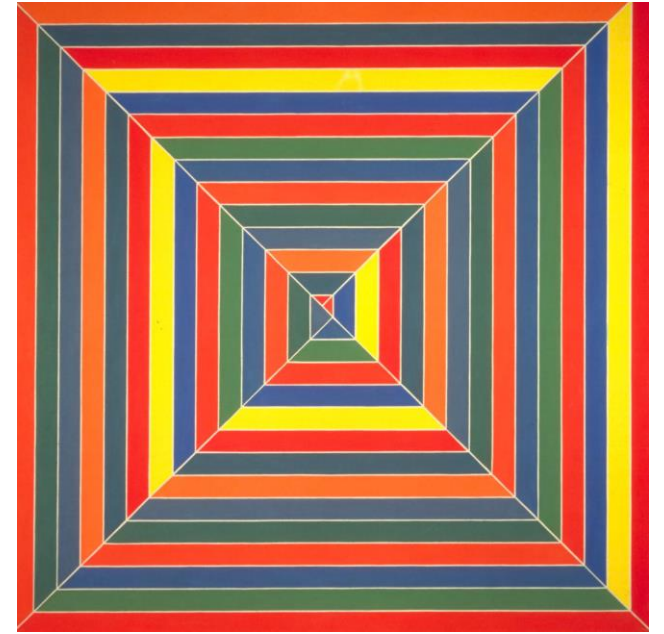
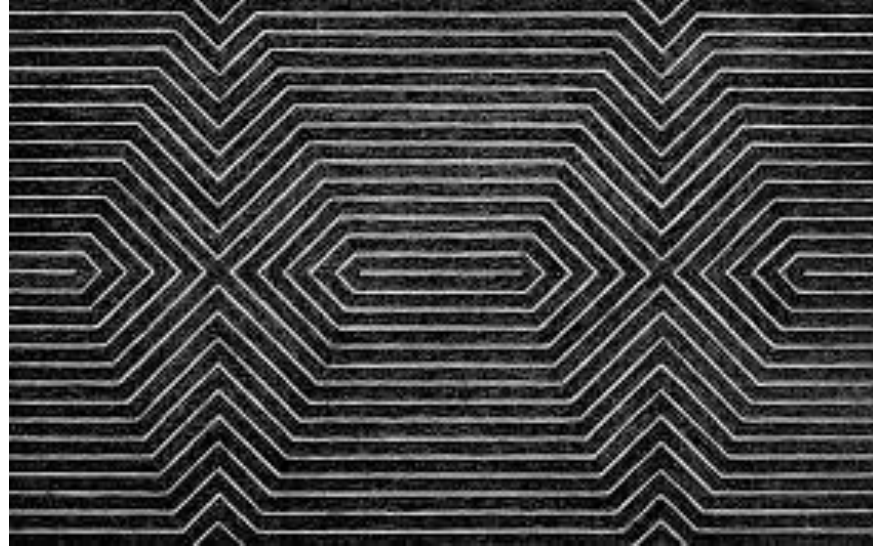
a **regular** and intelligible form or **sequence** discernible in the way in which something happens or is done.

The starting point for my project is to explore pattern, repetition, and regularity in design. I am intrigued by the idea of building on and multiplying shapes to create something larger. I began looking at simple patterns such as this with the intention to reflect this concept into 3D forms in metal and polymers. However, I do not intend to use these concepts in a consistent manor. I intend to use pattern and repetition and push them to create forms that may go against the common idea of regular but create unique and imperfect forms through using regular and repetitive techniques and shapes.



Frank Stella

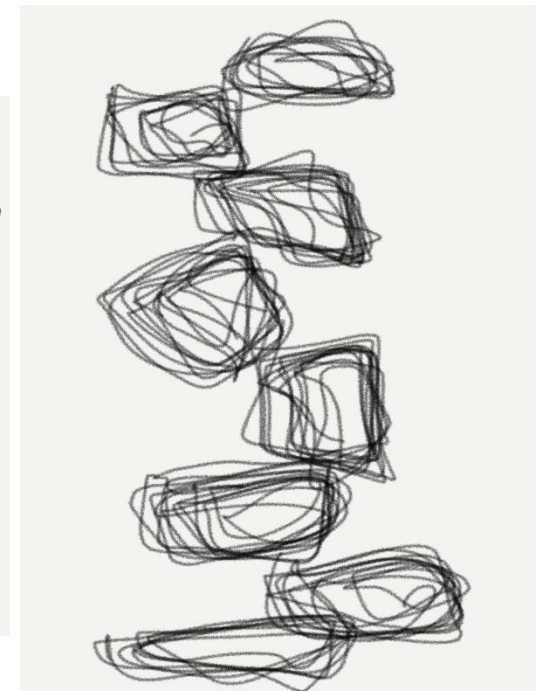
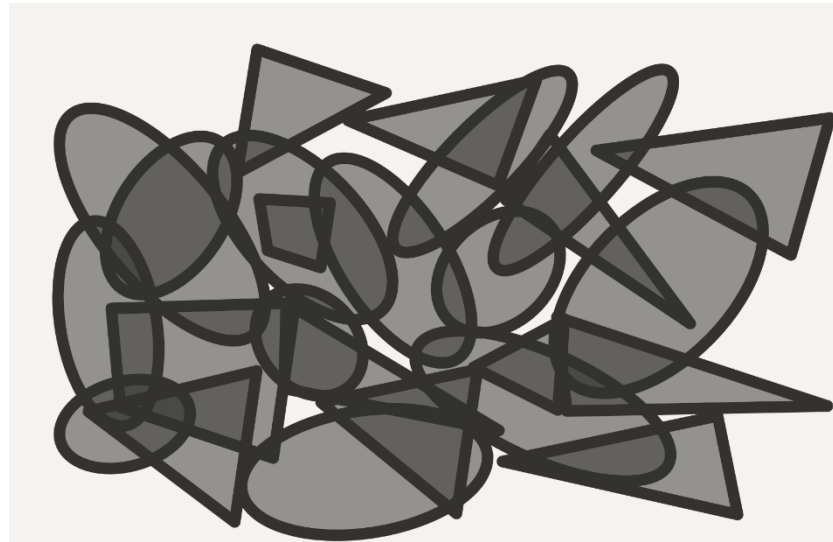
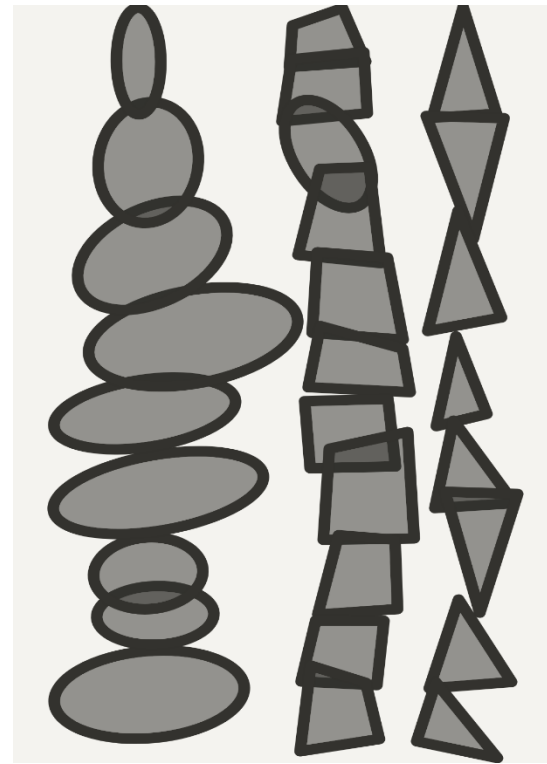
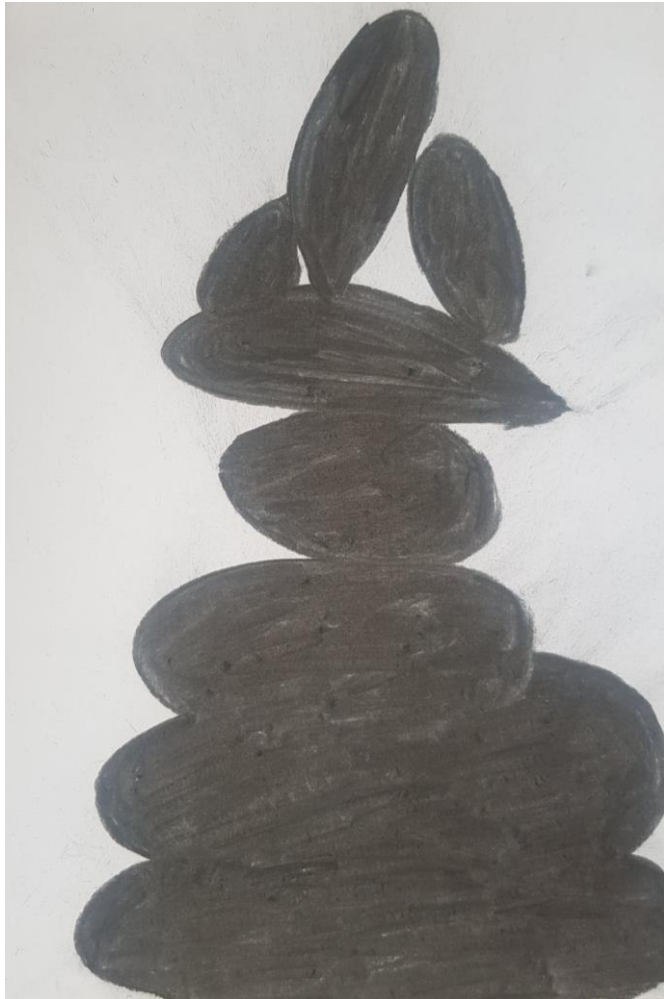
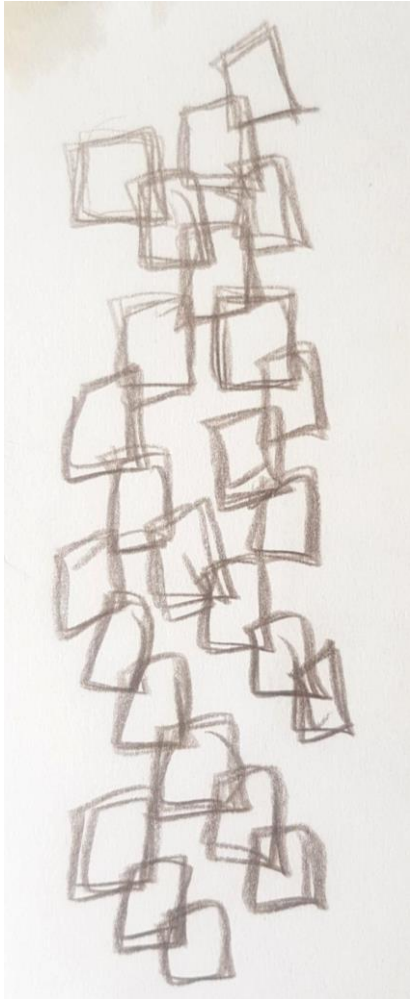
Frank Stella who is an American abstract painter produced some work that I found very relevant to my area of research regarding pattern and repetition. Stella uses repeated lines and shapes to create paintings that are repetitive but also somehow irregular. He does this through the intrusion of shapes or lines or colours which are just slightly off from would be a perfect or consistent pattern. These make for very intriguing and almost hypnotic designs.

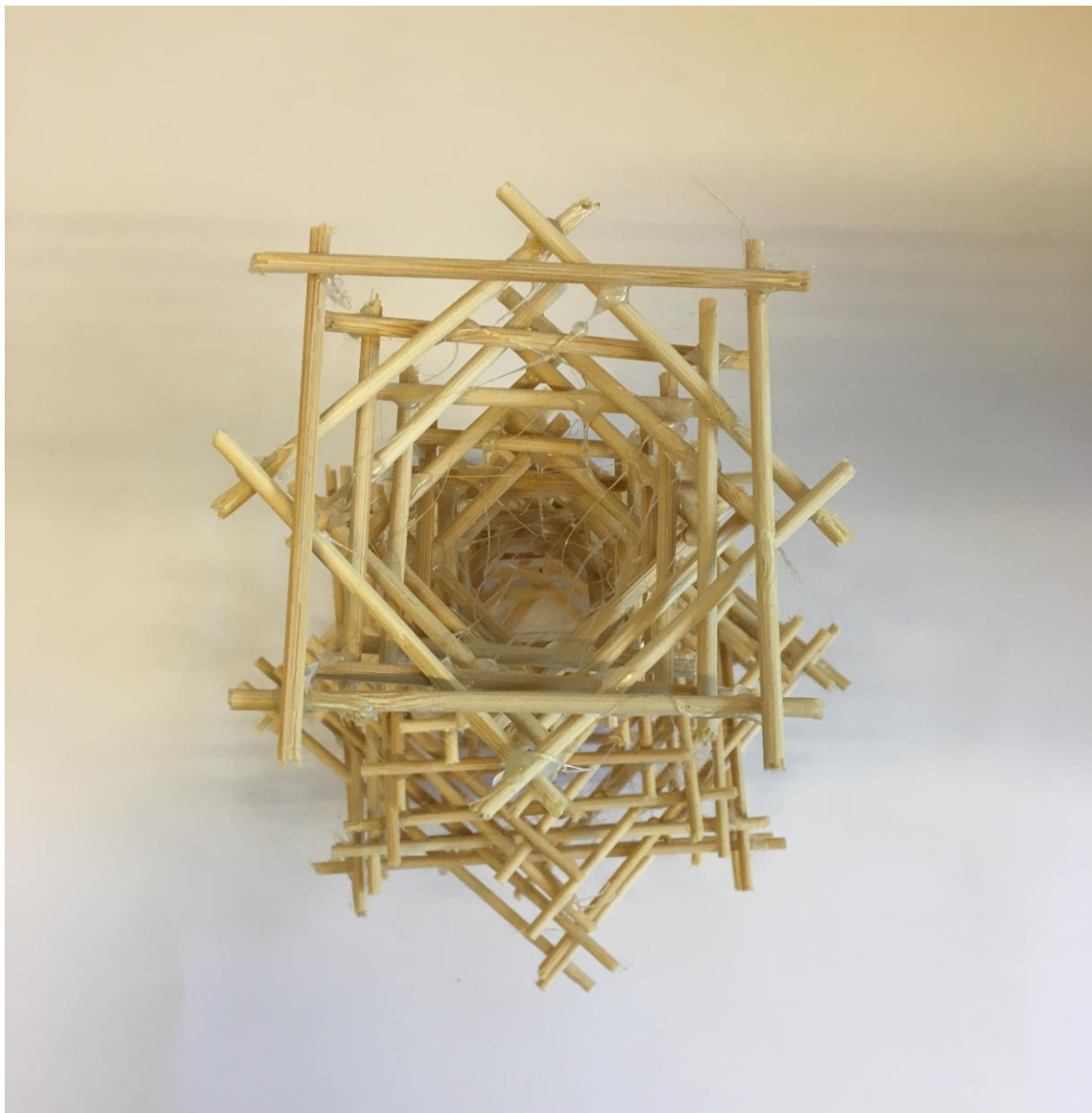


Later in Stella's career he also began to translate his ideas and paintings into the three-dimensional. Through the layering of flat shapes or combination of flat shapes to build more forms he creates large three dimensional sculptures. These sculptures are full of colour and lines and bring paintings to life, something which I intend to do in my work.



Initial ideas and responses to my photos

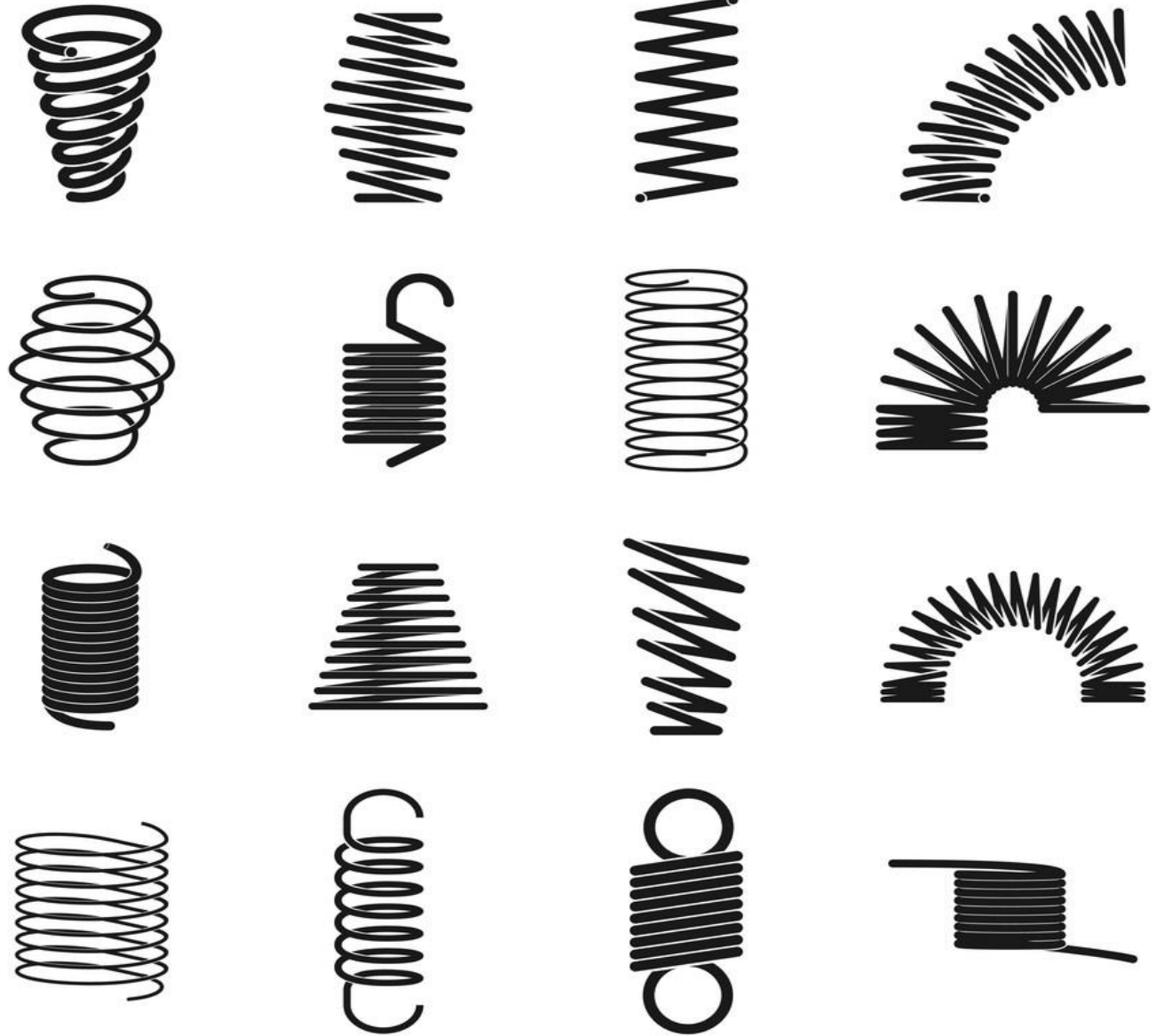




My first physical and material response to pattern and repetition was a simple layered wooden structure with each layer consisting of four sticks. I decided to use varying stick sizes for each layer to create a more interesting shape however still creating something with a sense of regularity although slightly imperfect. From this experiment I found that for me the most interesting and exciting characteristics were the imperfections. The imperfections make it more intriguing and less common as completely perfect forms do not have as much personality. This idea reinforces my interest into irregularity however I need to take it much further.

To start off with I chose to experiment and explore the idea of repetition and pattern in physical forms and processes. Coiling stood out to me as it is a very simple repetitive process and produces an interesting layered and continuous shape. I looked at how it can be produced in different shapes and sizes as well as be manipulated from a straight and regular piece and become a completely different shape and form.

Coiling gave me a starting point and thought process for many possibilities. It opened my ideas to playing with thickness, shape, width, height, spacing, colour, angles, and joining different shapes together. This was a good starting point for me with materials and it gave me ideas to begin using regular and repetitive processes and making them irregular.



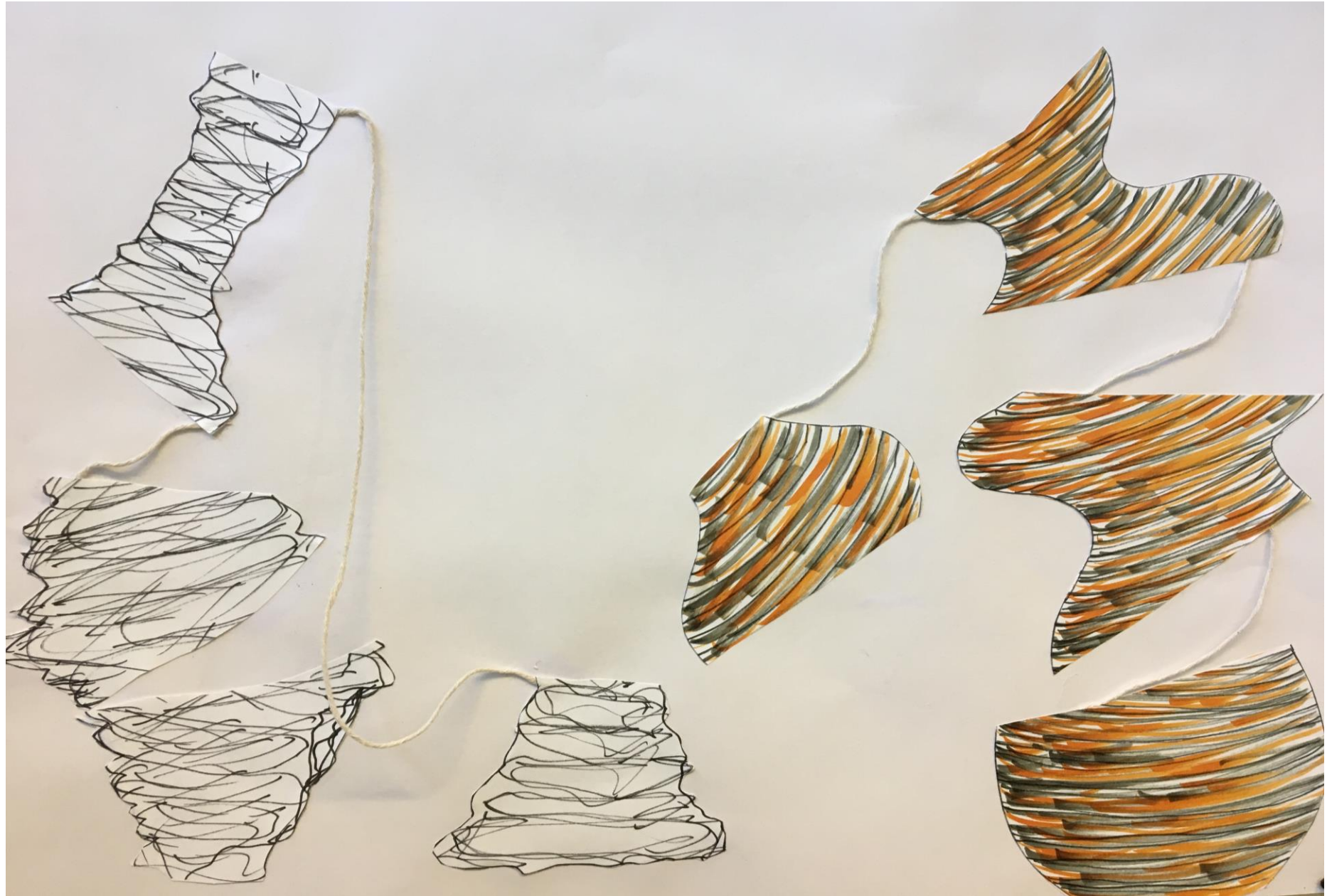
I started my own experiments by coiling metal and steel twisted wire around variously shaped objects and then pulling them apart in areas like In the photo on the right, and twisting the coil to create variously positioned layers like on the left. The object on the left shows the materials almost doing its own thing due to the weight and falling in to an unplanned position when left untouched. I like the idea of not having full control of the material. These experiments were informative for me moving forward with repeat processes and producing irregular outcomes.



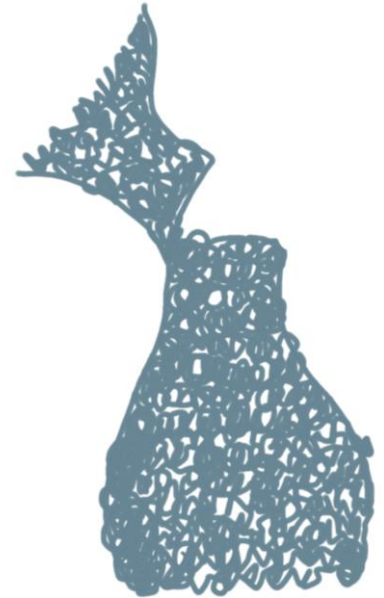
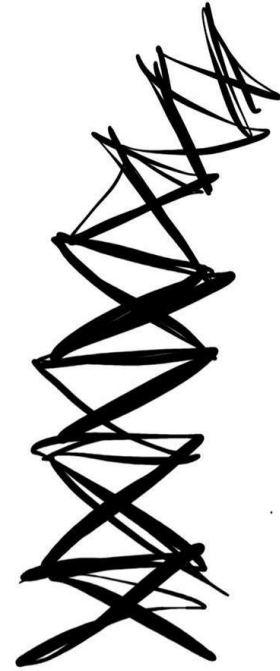
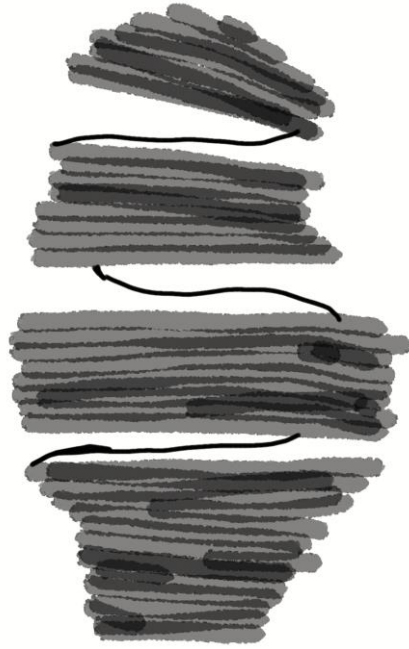
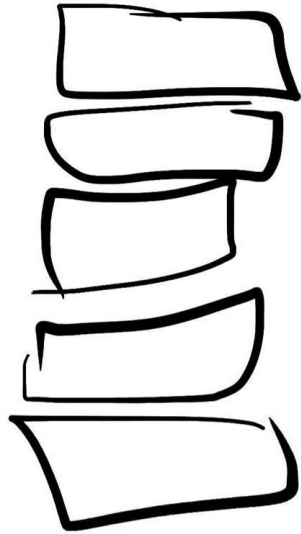
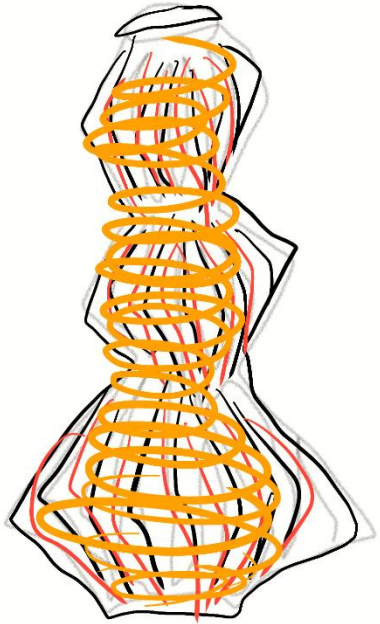


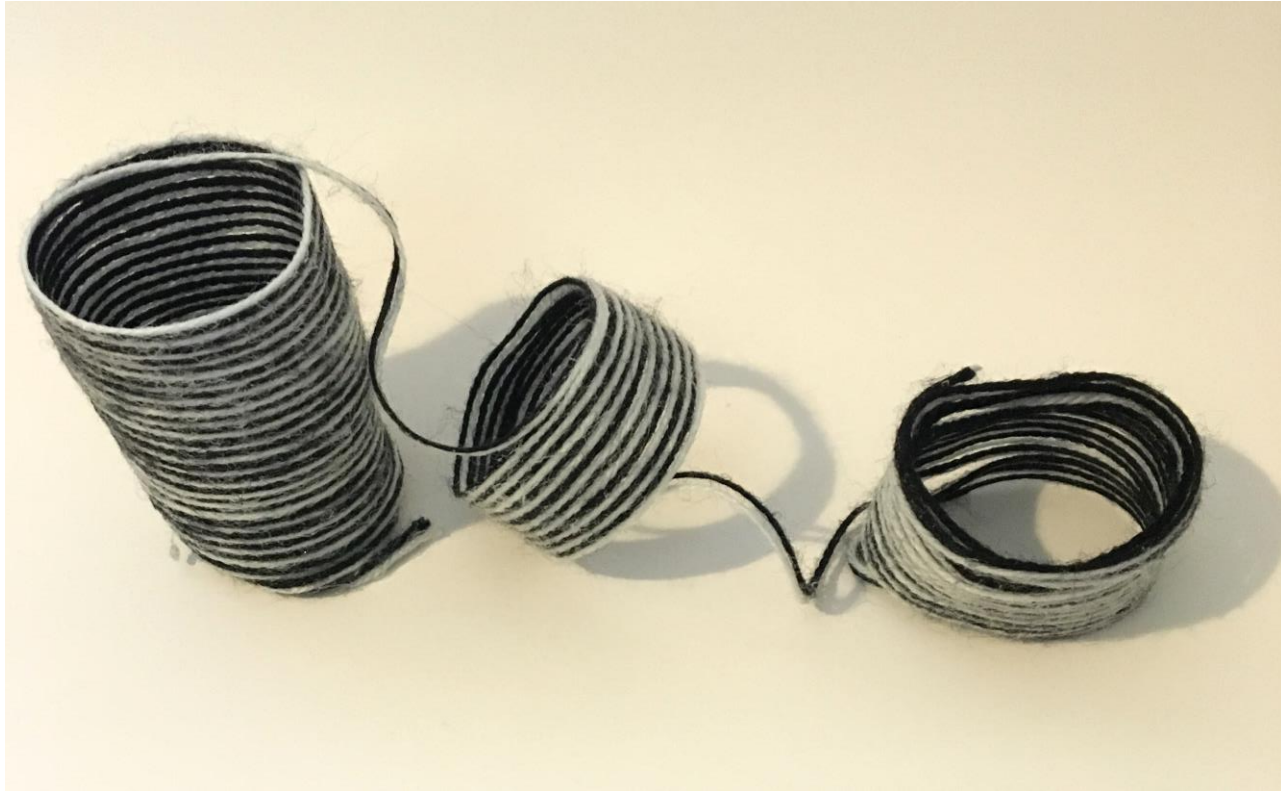
I then furthered my manipulation of a regular coil into something irregular by using the roller to flatten various coils. It is an easy way to get effective outcomes. The outcomes reflected the repetition however in a distorted manner and completely changed the form of the coil to the point where it isn't a coil anymore. These tests were successful for me in terms of my aim to use repetition and pattern to create irregular outcomes.

The coiling of the metal and elements of coming apart gave me the idea to experiment with string as it is very different to the metal while also being able to produce the same forms and shapes such as a coil. I began to use drawing as a plan before carrying out the physical work as it allows me to have a vision and guide for what I am making. I firstly chose to exploit the idea of a form or structure coming apart and becoming disjointed from its original form and becoming a form of various parts. However I am still interested in keeping the whole structure connected as one form.



Digital drawing ideas





These are some physical representations of my disjointed style piece ideas. I used string and wrapped it around a cup and then PVA glued it to make it go hard and be a solid form on its own. Furthering the idea of imperfections and mistakes and allowing them to happen I have been experimented with the vessels coming apart or breaking due to weak joins and exploring how they can work as new versions of once a full form. These forms also opened my thinking to the concept of weight and balance and needing certain parts to stand as they are.

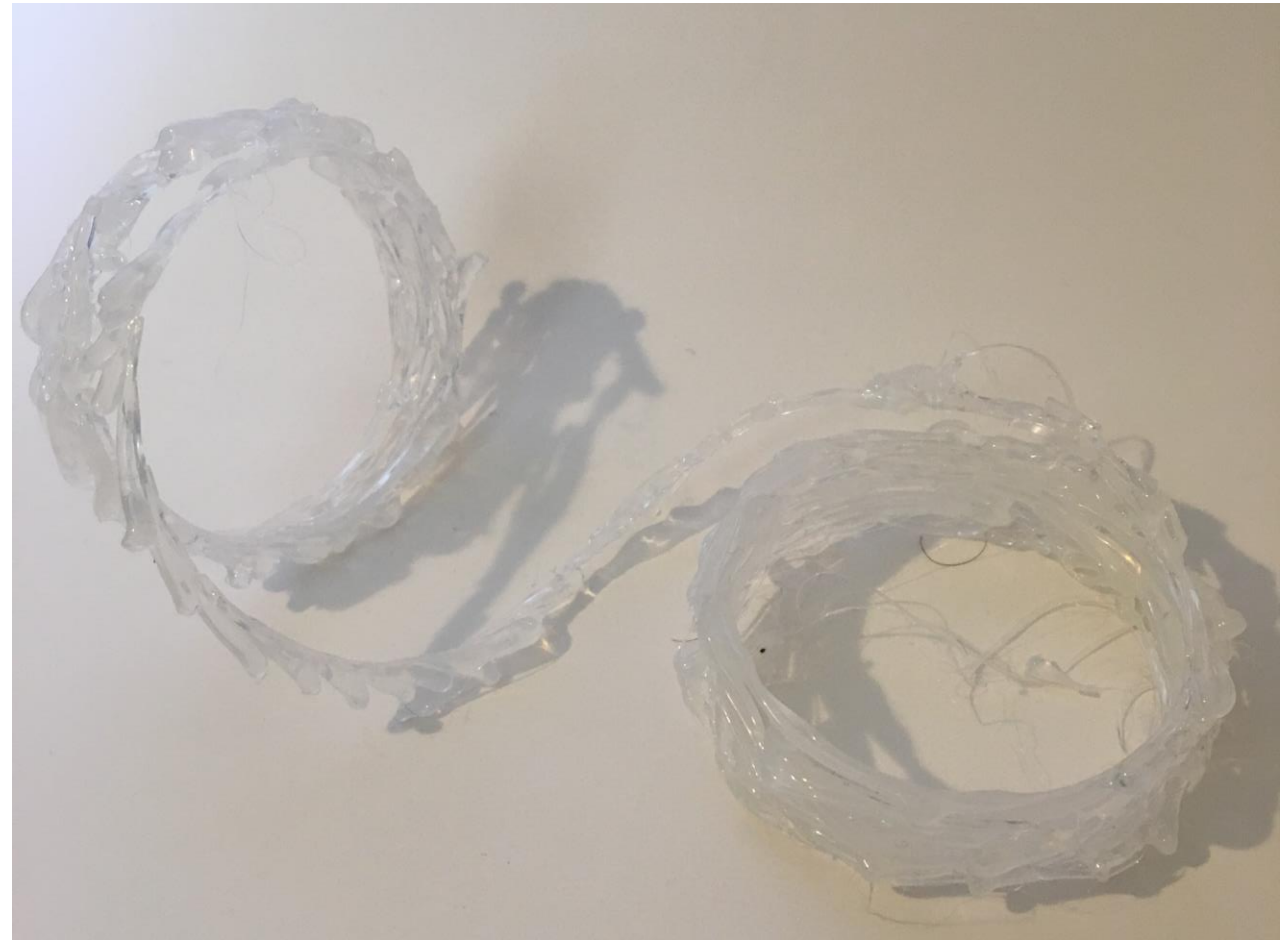


Furthering the idea of balance and two objects being necessary to other I made some quick models playing with weight and how the structure stands. I intend to explore this as a path in the development of my work and ideas alongside the themes of repetition and imperfection. I chose to experiment this idea in both metal and string to compare the outcomes.

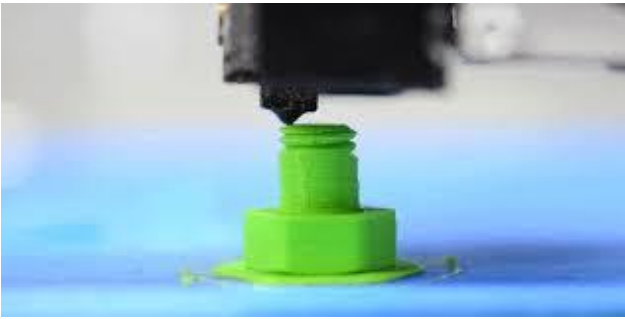
On the left the bottom half which is white string is very soft and weak, however I chose to put it as the base as I wanted the top element to effect it by weight which it has causing a slight lean in the structure. For the top section I attempted to make the string and pva vessel stronger by hot glue gunning the outside while also exploring a new texture.

I also attempted to merge metal wire with glue and it had an 'interesting' outcome one which I am unsure I am keen on. However I do like the idea of merging the glue to the shape of the metal.

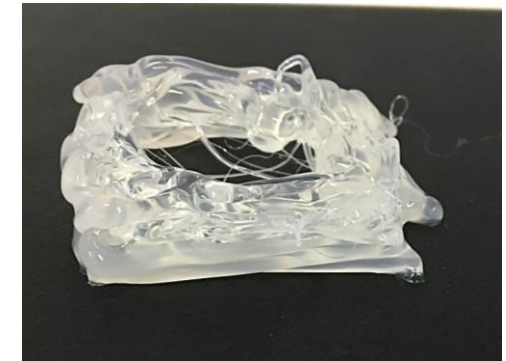
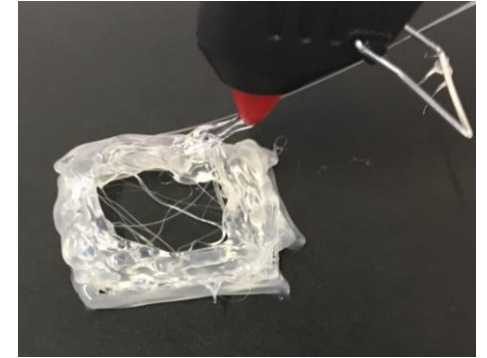
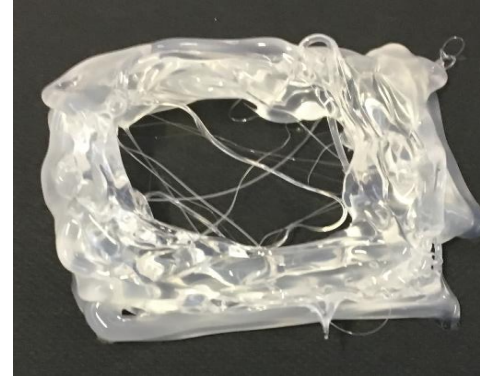
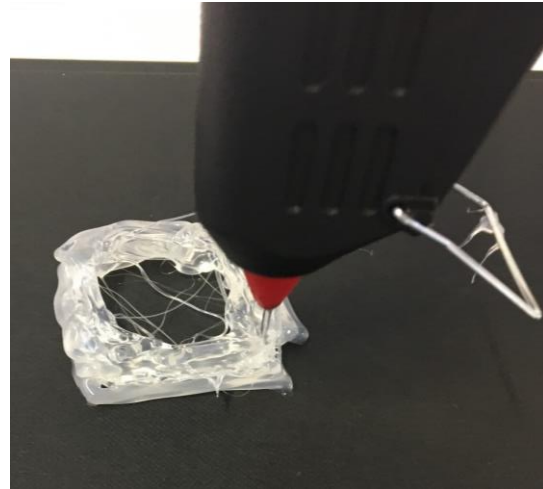




Following my last experiment with the glue I decided to move away from string which I was mainly using for testing, and instead further my work with hot glue as it is a material which can be formed in to any shape whilst at the same time is hard to control and the outcome is always slightly unpredictable. The idea of creating a shape with the imperfections that hot glue can create excited me, so I had to try. I attempted to reflect a simple form made with string and I was pleased with the outcome through the visible layers of the glue and the uneven edges and urged me to take it further.



<https://www.autodesk.com/redshift/3d-printing-timeline/>



Stemming from this idea experimentation and link to my focus of imperfection in repetition I began looking at mechanical processes and how I could mirror them myself without the detailed and heavy machinery. The idea was to use repeated motions but allow the material to take its course to a certain point. The first experiment I tried was simply using a glue gun in a repeated motion layering the glue up to make a shape as a 3D printer would. It produced a very distorted but interesting outcome.

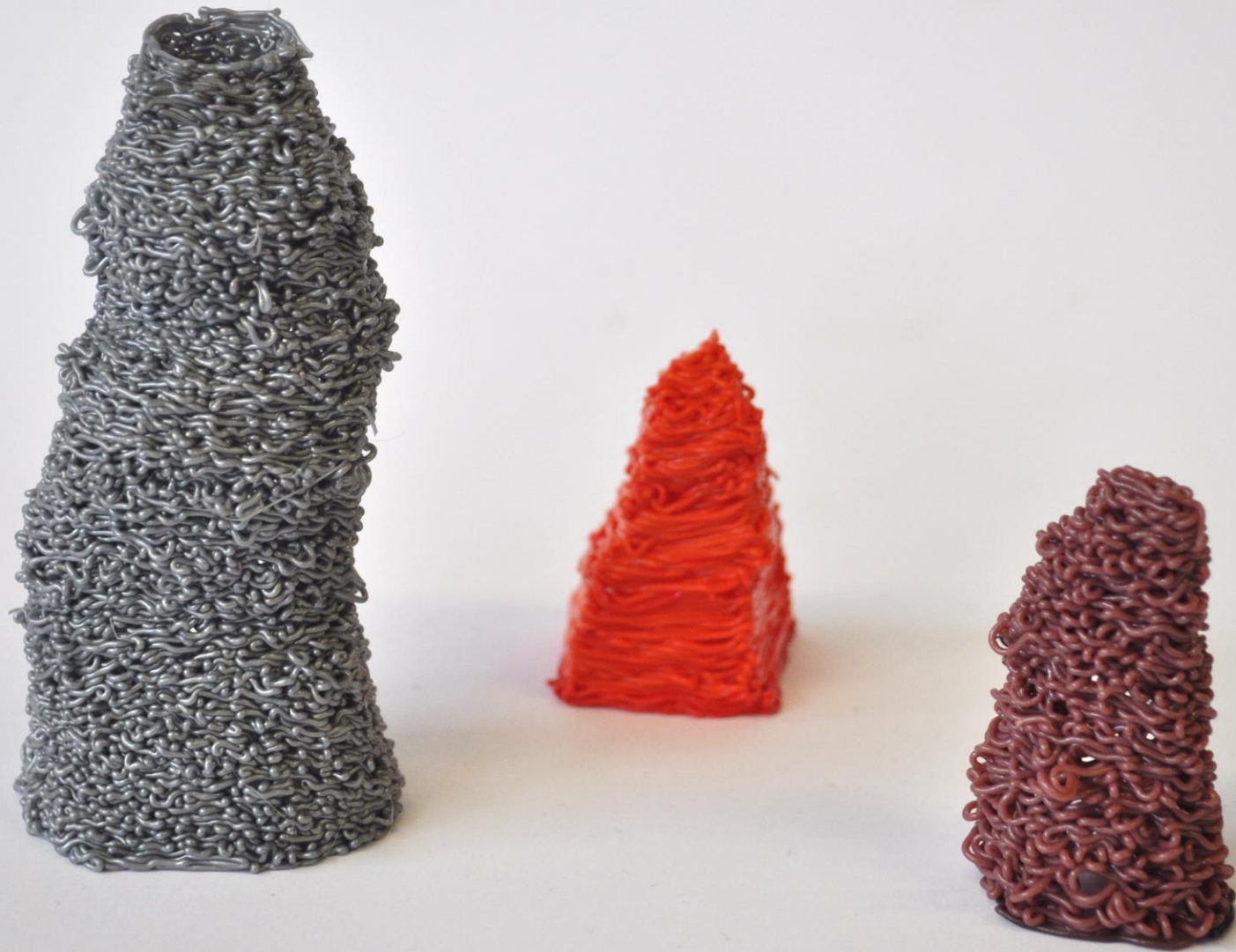


I chose to experiment with glue further as I found it an effective material for layering to build 3d forms. I found that layering glue around a solid forms allows a more fragmented and airy shape as it is not simply a block of solid glue. I also found the glue gun itself caused the texture seen on the right due to how much glue can come out and the glue being heated. Working with a glue gun is close in concept to a mechanical process and has many different possibilities and outcomes to play with.



Using the hot glue and imitating the process of a 3d printer allowed me to come across the perfect mix between the two, a hand held 3D printing pen tool. This pen acts in the same way as a hot glue gun except using 3D printing plastic filament. This discovery was a big breakthrough for me in developing my work and ideas and allowed endless more possibilities for me to explore. I began doing some simple tests with the pen to get a feel for it and find out how it works and what it can create. The textures that were coming out were very repetitive but also irregular and random as the material almost does its own thing as it is hot and not fully solidified plastic, which was perfect for me. 3D printing is a great process and now I have discovered I can do it with my hands!

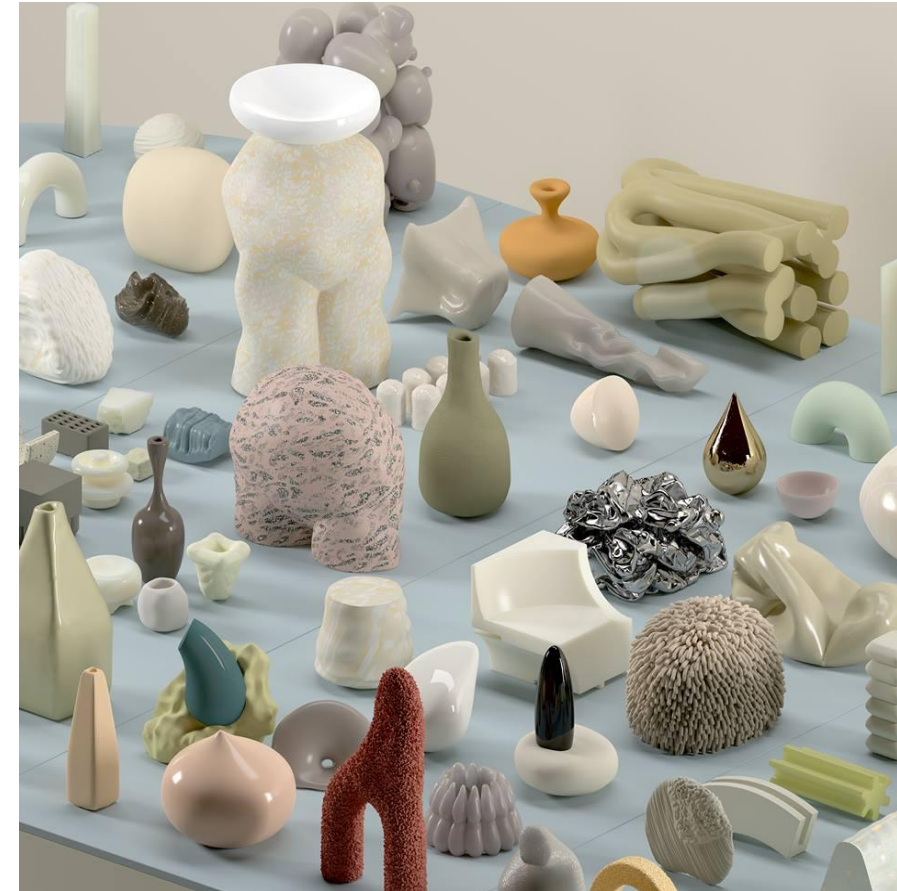
Furthering my exploration of the 3D printing pen I created some larger layered forms by simply using a repeated motion over and over to see what the outcomes would be. My inability to actually recreate the exact motion in the same place over and over has allowed for the forms to come out as they have. I used three different techniques to produce different layers and textures and it showed me the extent and abilities the pen has to create a range of forms.



Wang and Soderstrom

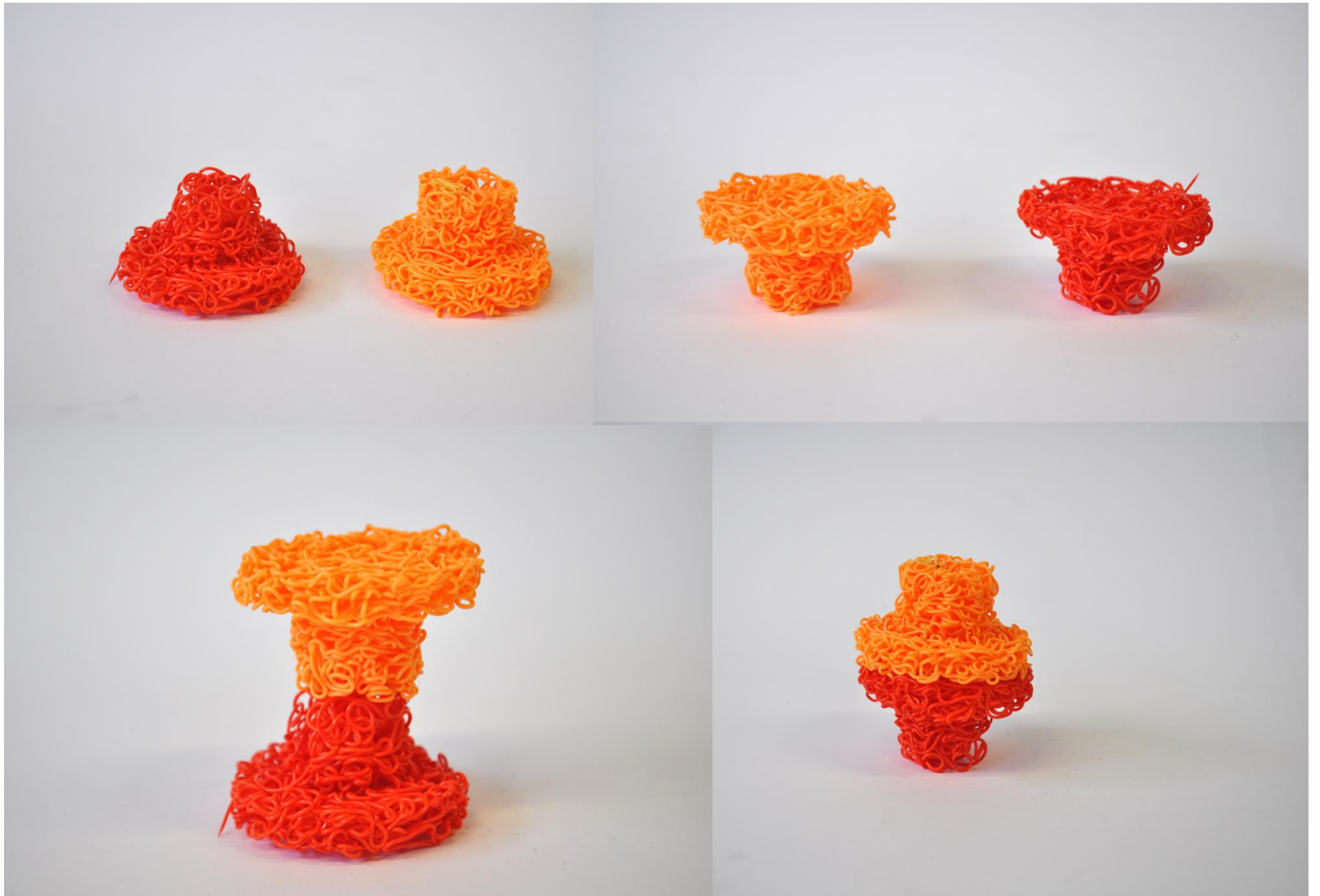
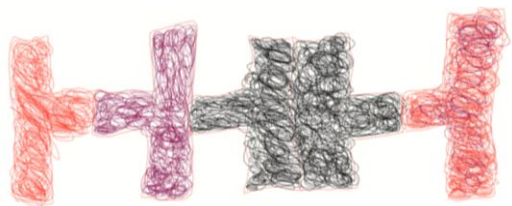


Through crafts magazine I came across the designers Wang and Soderstrom and was immediately drawn to their work of weird and wonderful forms using 3D printing.



Their wide range of colours and shapes is inspiring for me in expanding my creativity regarding shapes and forms. The variety of textures they have is also something that has triggered some thoughts for me.

My next step was to attempt to create 3D printed full shapes. I used a plastic shape cutter as the guideline and used the 3D pen to fill the shape. As the filament comes out very stringy and cools very quickly it is hard to create solid and flat surface forms and instead creates an airy layered structure . I attempted the same experiment twice to compare the outcomes and it is clear they are different. I like this idea as it does not allow you to create something exactly the same.





After using the pen to fill a shape I again furthered my exploration of the pen by using it to line the outside of a bowl. A similar idea but a very different outcome. It creates a shell structure of the bowl as if it has shed its skin. What intrigued me about this experiment is that it has created two different textures on the outside and inside of the shell due to one being in direct contact with the bowl and pressing against it producing a flatter surface in comparison to the bobbly outer texture. I also began testing more colours in relation to each other as it is an important feature that I need to develop.

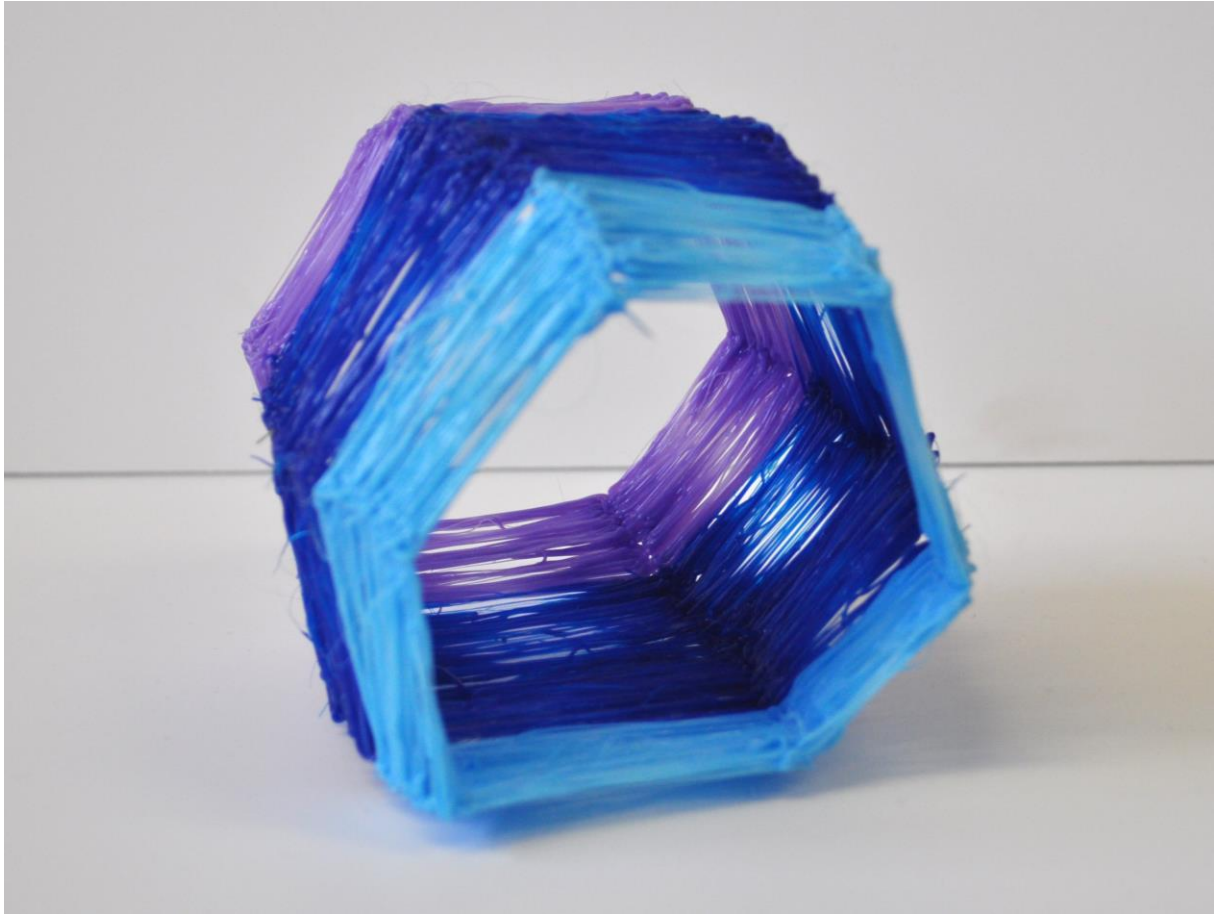


The form became a vase like shape although at this point I am unsure of the purpose of the object. What also surprised me was how light the object was as it does not visually look as if it would be.



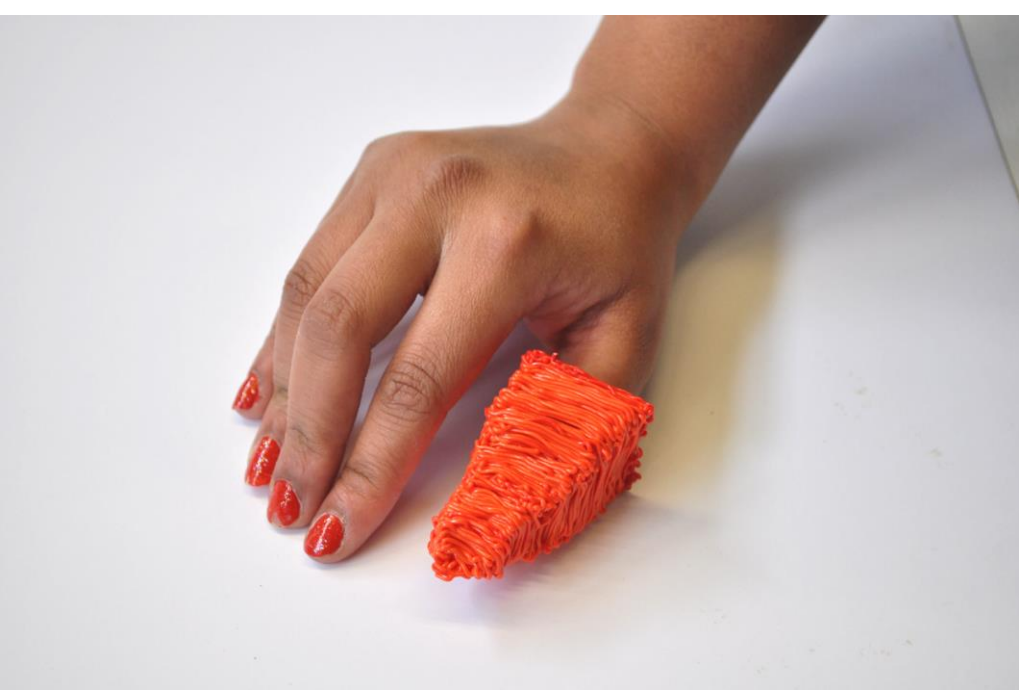
Now I was familiar with the use and possibilities of the 3D pen I decided to explore its use on a larger scale and with a variety of layered colours. My process was similar to the three small layered objects where I simply acted as a machine in a repeated layering motion. On this larger scale it showed how the plastic was melting and as it was not fully set when the next layer was applied began to fall inward and the outcome became narrower and narrower as the layers went on.

The layering of the colours is something that I think works well and i am keen to continue creating varying coloured forms. The texture is also something that I have not seen before and is an exciting and exploitable aspect.



In the same way as the previous slide I again wanted to scale up the processes with the 3D pen and find out more about what it can produce. This time I used a five sided shape to begin and simply in straight strips layered up this shape. Again the plastic began to fall in different ways however this time I attempted to guide it more creating a thinner bottom and top with a larger middle. This technique produced an interesting result due to the stringy nature of the fibre like plastic and allows gaps where light can pass through. The texture is very different to the last slide and I intend to continue with both processes side by side.

Relation to the body



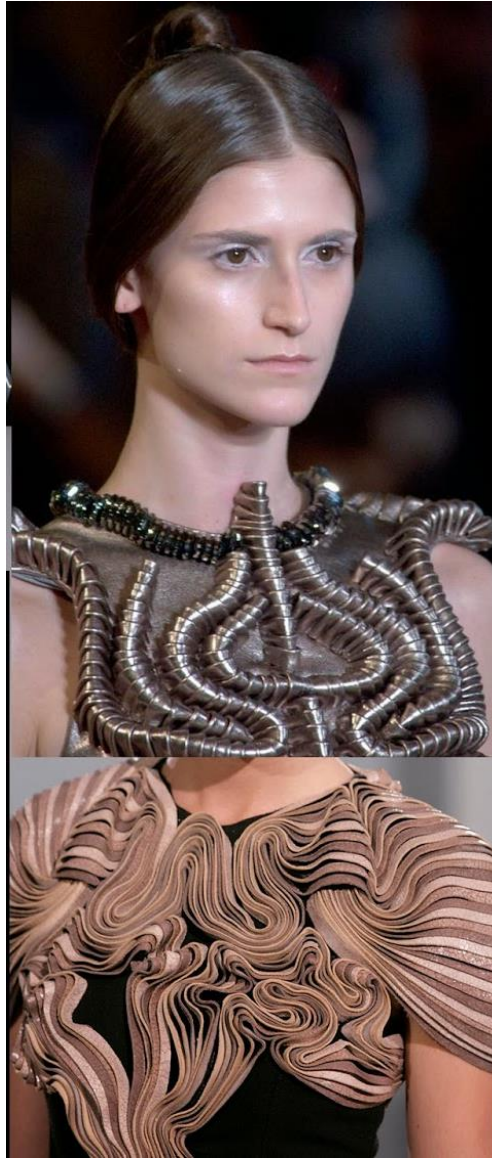
I have a great interest in the body and how things can relate or be worn on the body. For this part of my project I intend to experiment with how forms that may not necessarily be associated with the body as a form can completely change the way it seen and its purpose when put on or in contact with the body. My intention was always to bring the body in to my project however I wanted to create forms and experiments without thinking about the body to see how they can relate or be transformed. Pictured are forms that I have previously made as experiments separate to the body placed on the body and it is clear how different they appear.



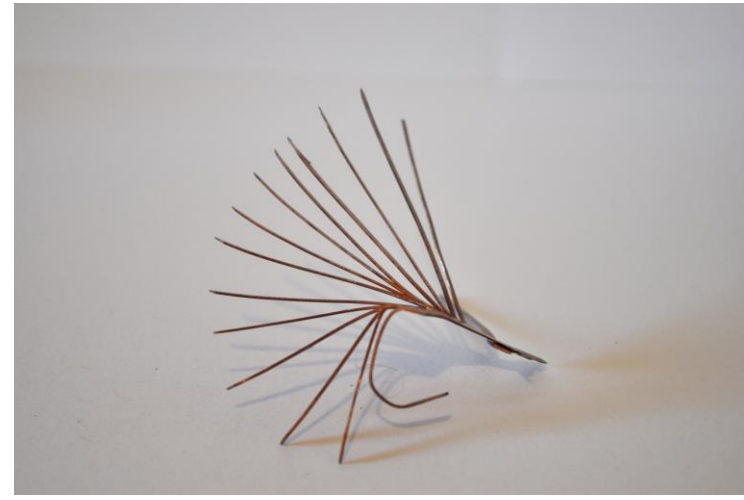
The objects and the body compliment each other through contrasts in colour and shape, while also some similarities in shape and form. The objects suddenly have a new meaning through a visual and physical relationship with the body and I am pleased with how my forms appear with the body.

Iris Van Herpen

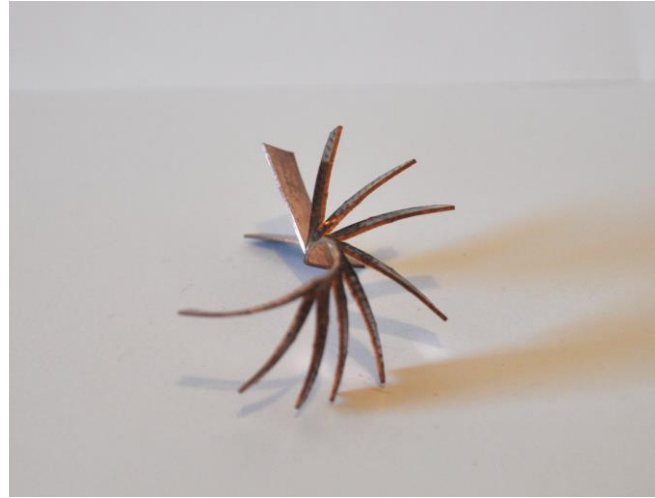
To gain some wider inspiration of wearing things on the body as well as pattern and repetitive designs I began looking at fashion designers as they create work to adorn and compliment the body the most. I came across Iris Van Herpen whose work screamed out to me and I was in awe of her work. She creates 3D printed sculptural fashion pieces, her pieces consist of a lot of repetition while also a sense of randomness and diversity of layers and shapes. Van Herpen uses a range of materials including plastic, metal, and a range of fabrics and her style has certainly pushed me to expand and go bigger and bolder with my designs.



Experimenting with metal to
make jewellery



After experimenting mainly in plastic so far I wanted to also experiment more with metal so that I can bring the materials together to make some wearable forms. I decided to get back in the workshop and create some jewellery type pieces through repetitive processes and techniques to get a feel for the material again and gain some inspiration and ideas.

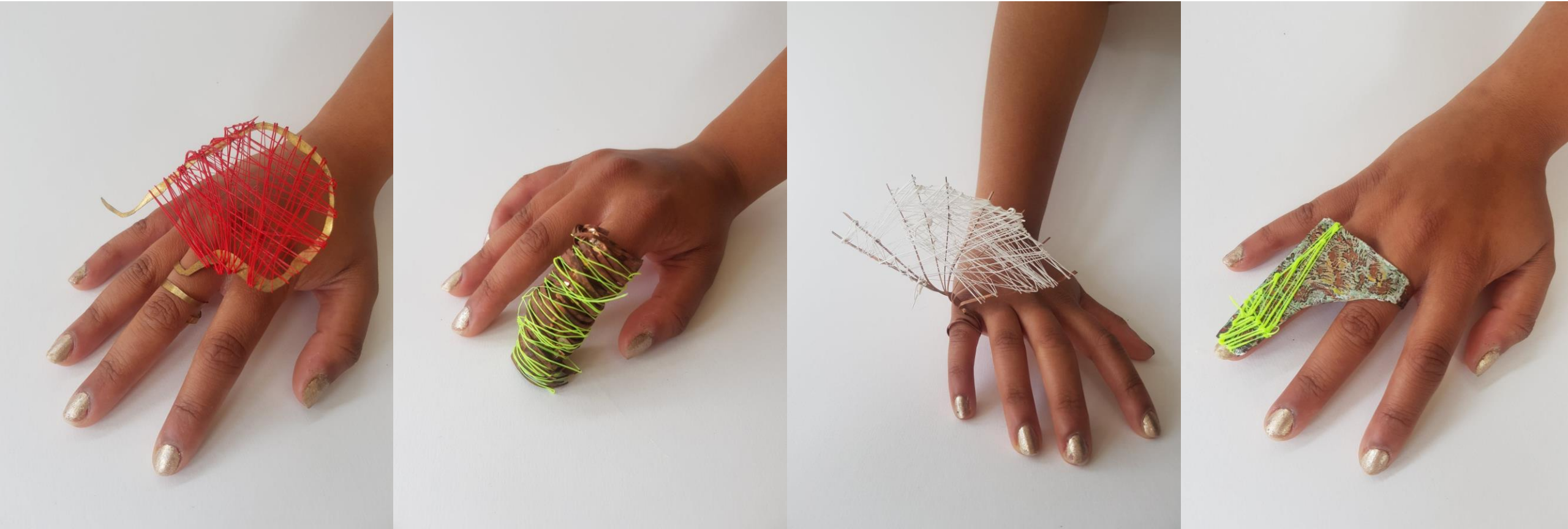


In the metal workshop I also began to play with patterns, textures, and colours to see what could relate and be useful taking forward and possibly merging with the plastic. I used techniques such as cutting, enamelling, soldering, and piercing to create a range of forms that appear repetitive however irregular and imperfect.

Wearing the metal

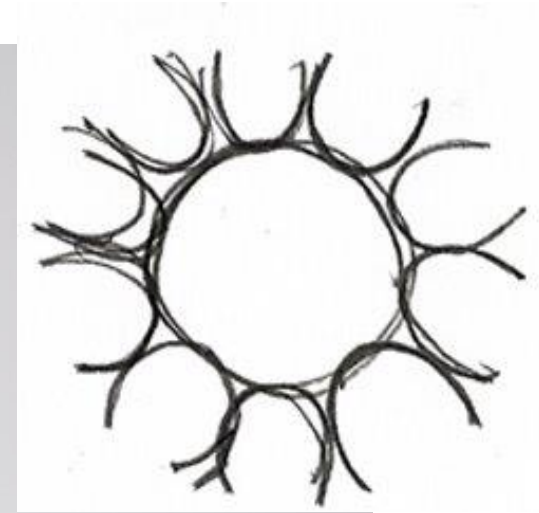


Bringing metal and plastic together



After making a selection of metal pieces I decided to simply decorate them using the 3D pen to grasp how well they work together, what shapes, patterns, and techniques work for merging the materials. I found that wrapping the plastic around the metal creating the stringy effect was most appealing, whereas using plastic on already coloured metal is too conflicting.

To introduce the metals to each other in a full and planned piece I decided to use steel rings surrounding a larger band and fit plastic 3D printed shapes within them. I used two techniques of the 3D printing which I have used previously to create a range of finishes on the tops of the plastic shapes. The materials contrast well through the cold and dark characteristics of the steel paired with the deep and colourful plastic shapes.

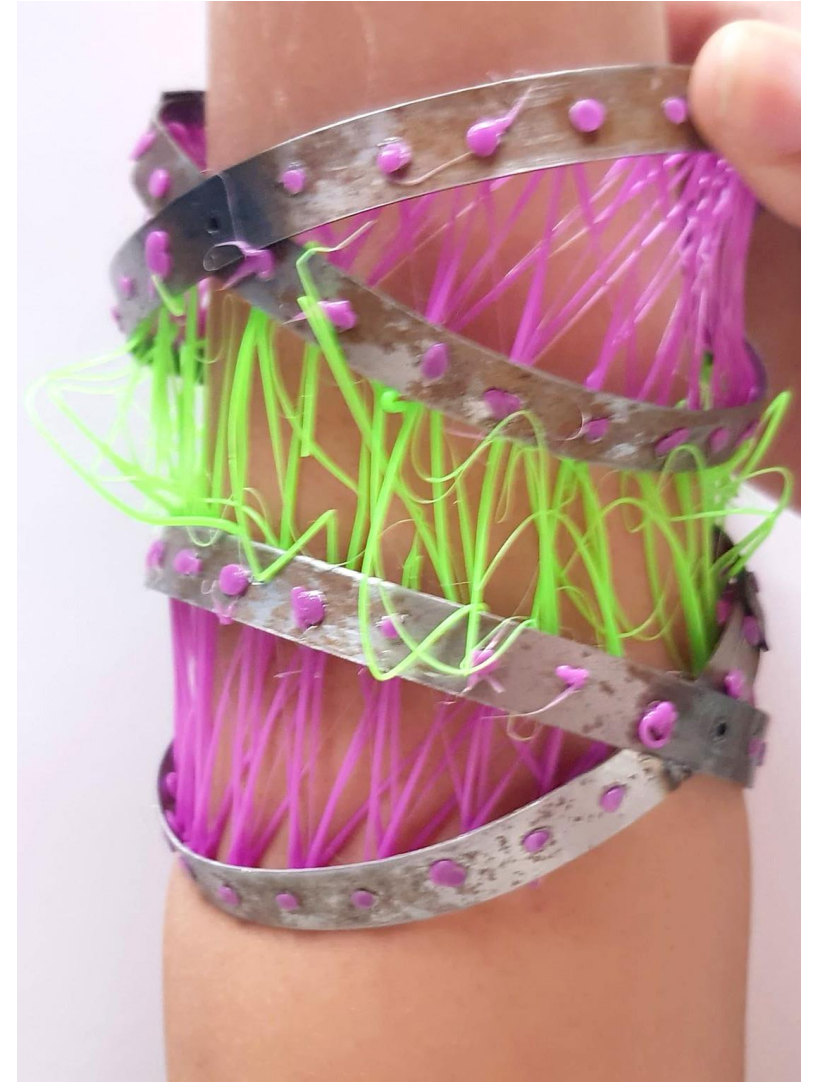




The piece works as a bracelet fitted on the arm and creates an intriguing image. It is not an orthodox design for a bracelet but somehow seems common place on the arm when pictured like this. I like this idea as it is very different to the image on the previous slide where it appears to be a rather mysterious object without a clear use or purpose, but when placed on the body it seems very obvious. The metal and the plastic used together in one form and complimented by the body is something I want to take further.



I wanted to find more ways to merge plastic with metal and experiment with various processes and techniques to attach them and make them a connected form. I began using the 3D pen to fill holes that I had drilled in the metal to act as rivets and it worked as an effective way to bring the materials together. The piece pictured shows that when two bands are combined the plastic rivets can also be connected through plastic strips to create an interesting pattern. This triggered many ideas for me and is very important for me moving forward.

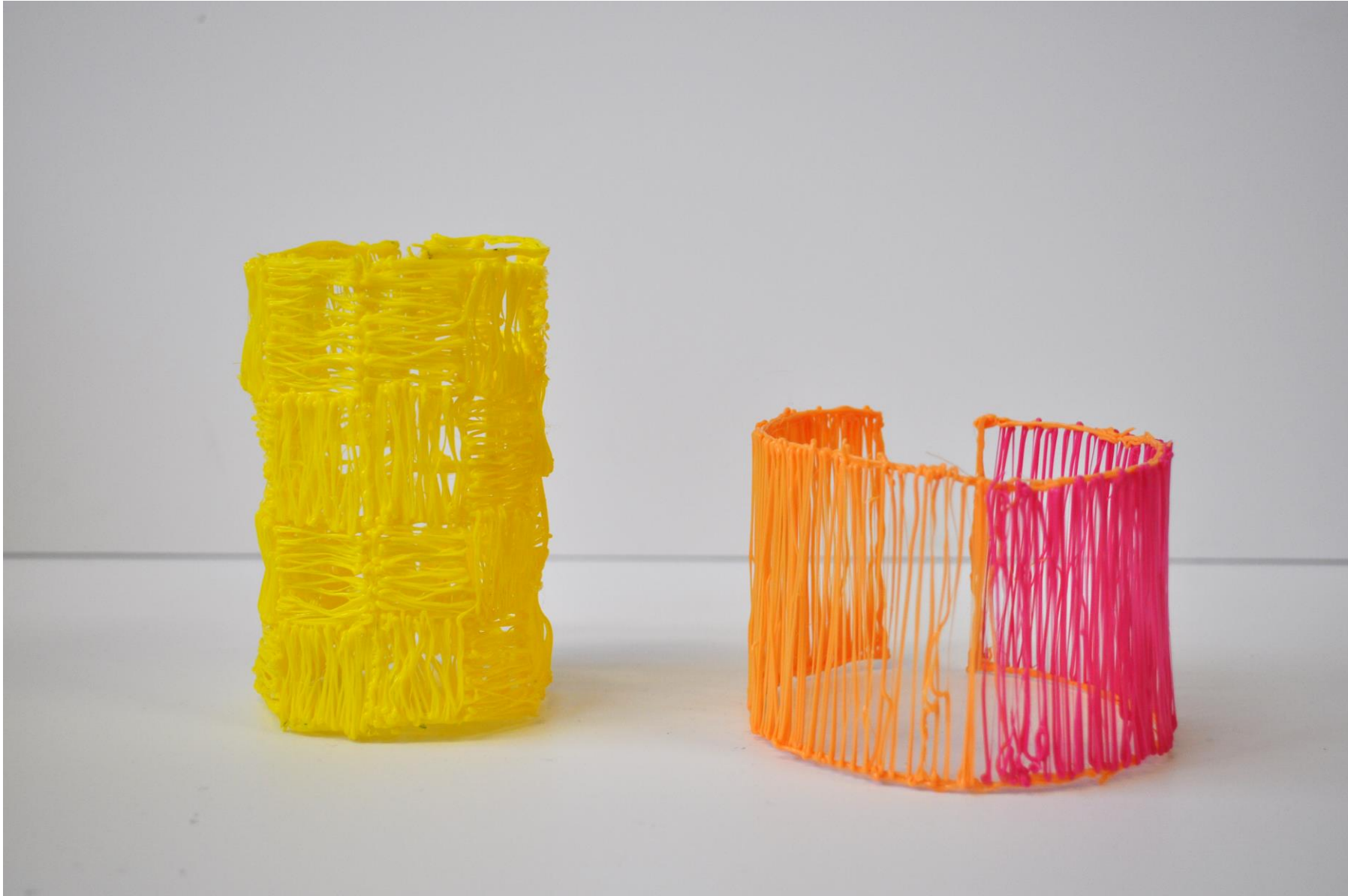


To further this style and technique I decided to make two and then use the same technique to link them together to see what the outcome would produce. The plastic (green) connecting the bands moved slightly although I believe the strips were too thick and close together to create full mobility.

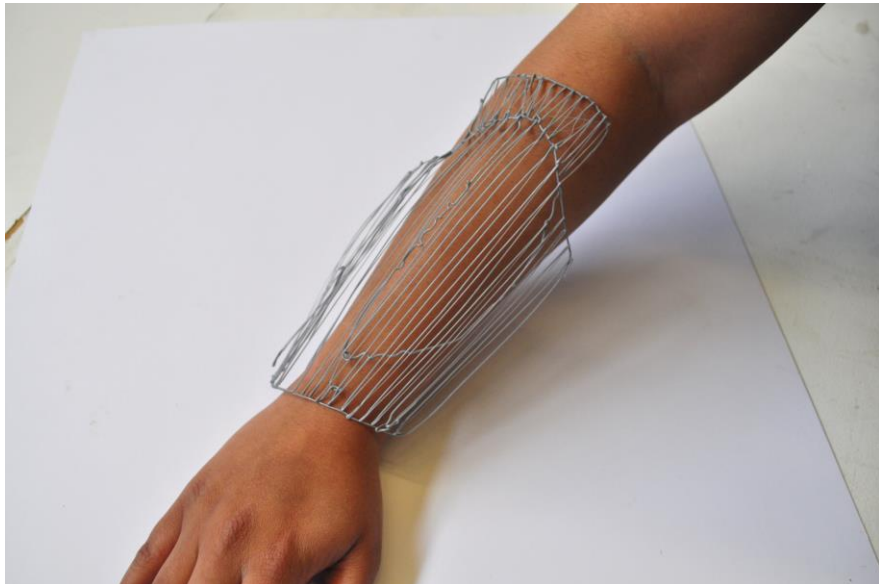
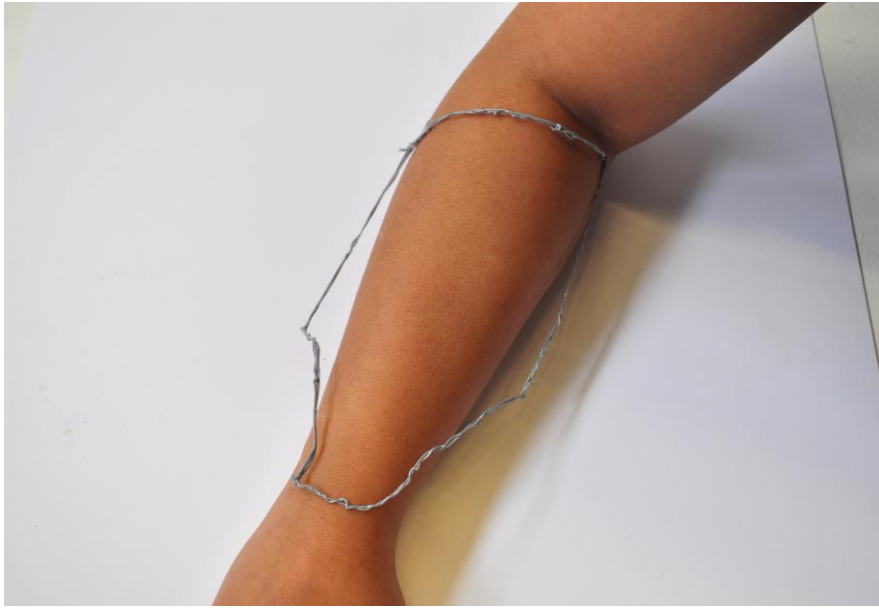
Further exploration of 3D pen and
shaping to the body

After the discovery of the connecting plastic strips I began to start exploring this more with the 3D pen. I found that it can produce much more flexible and flimsy forms which could be useful in connection to the body. I also found that with hot water the plastic softens so can be manipulated over and over and changed into desired shapes which is something I will further experiment with.

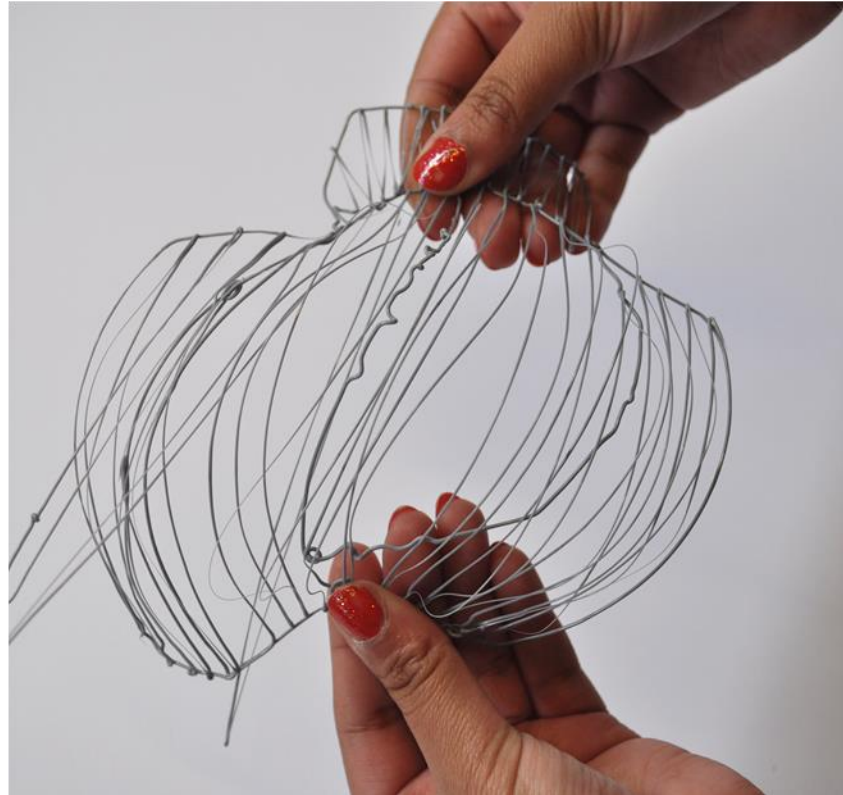




In a furthering of this stringy process I attempted to make some shapes that could relate to the shape of the body (right = neck) (left = arm). This technique allows me to create some crazy patterns and shapes. The diversity and flexibility of the plastic is something that really excites me and I intend to take forward and partner with the characteristics of metal.



To further the relation and fitting to the body I had the idea to draw with the 3D pen directly on to the body to shelter and mimic the exact shape. I used various ways of applying the plastic to create various patterns and textures.



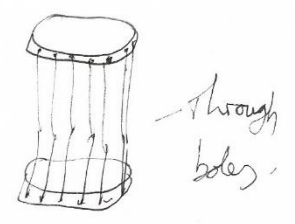
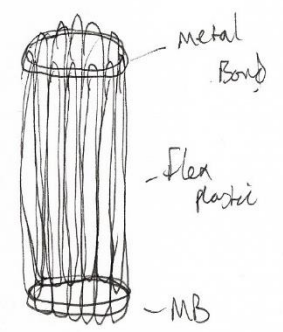
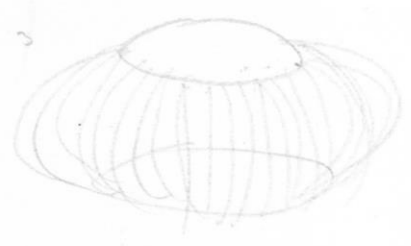
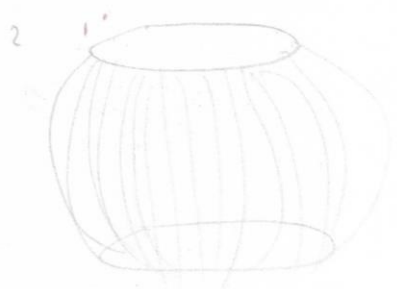
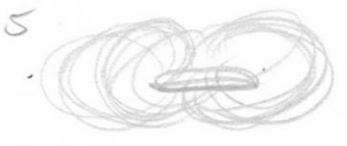
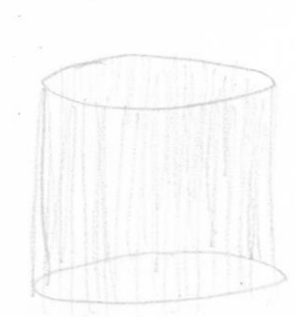
The piece that excited me the most was this flimsy forearm cover. The thin strips used to make up its structure are not thick enough to be rigid or solid and therefore allow for full flexibility. This flexibility characteristic is something that I am fascinated with as it can be used in many ways relating to the body. It is almost sympathetic or replicating the movement of the body like a muscle. This structure has opened my eyes to whole new world of ideas and possibilities which I intend to take as far as it can go.

Flex tests

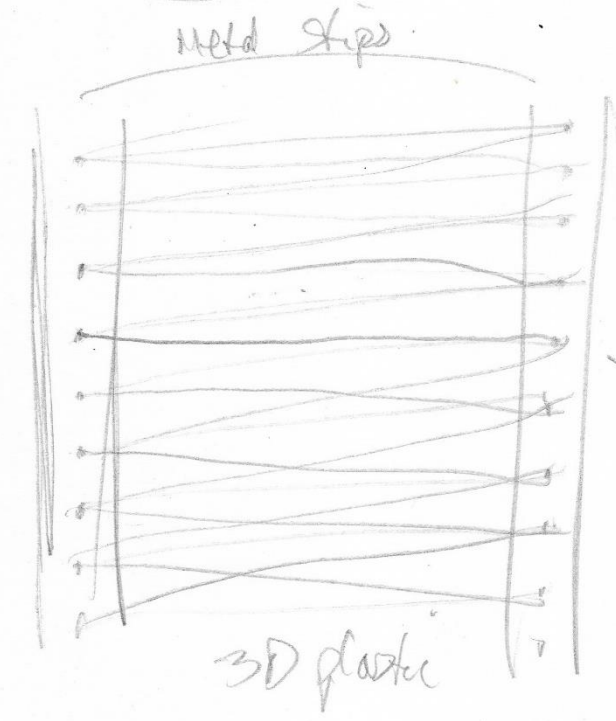
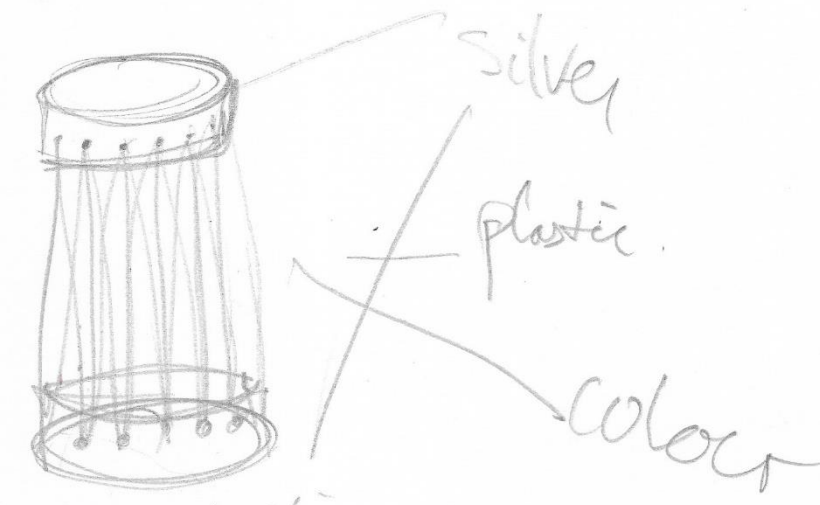
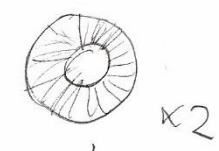
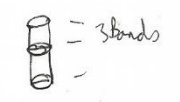


To further explore the flexible possibilities of the plastic I produced some bracelet type shapes with various line patterns to find out what type of pattern and layout works best to be squished transformed in some way. I found that straight lines down are effective and create a random looking placement of strips, as well as the criss-cross design as it squashes the easiest. On the other hand I found that lines only going one way are not effective for flexibility.

Designs and ideas for merging with metal



Wrap plastic around Bands

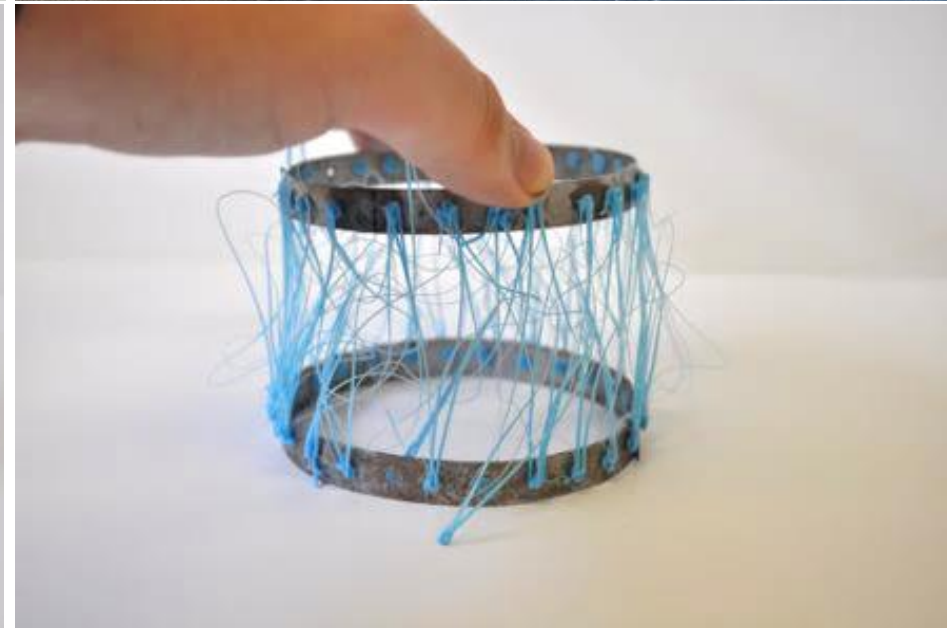
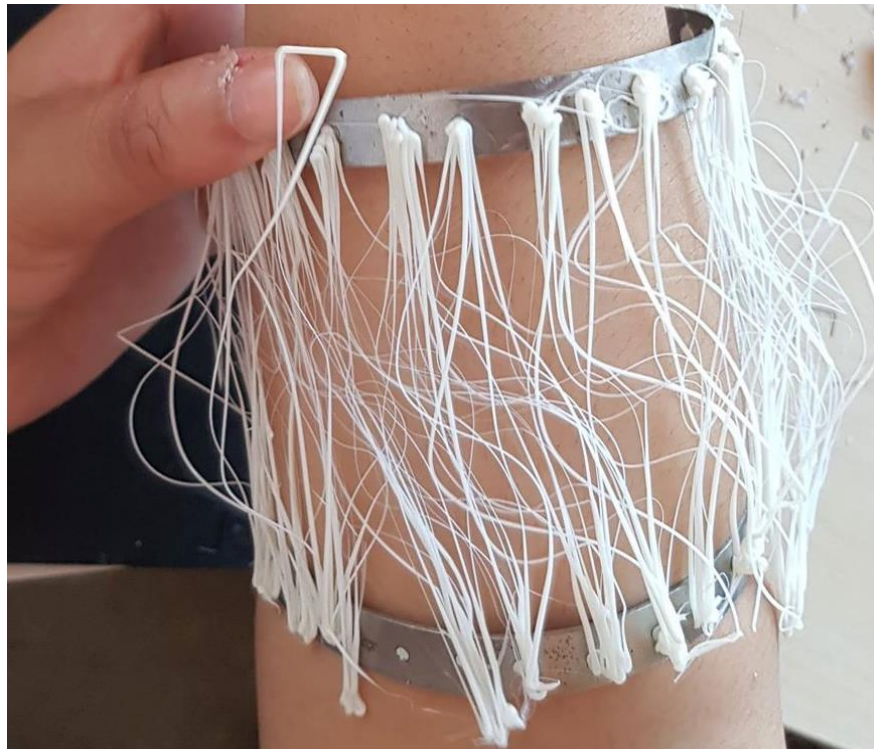


Metal and plastic bands

These are my first attempts at introducing metal into the flexible bracelets. I have simply used aluminium bands at either end of the plastic to create a greater structure and contrast the materials.

Process:

- Cut two aluminium strips
- Drill holes all the way along the centre of the strips 1cm apart.
- Fill the holes with the plastic filament from the 3D pen creating plastic rivets
- Link the bands using a spot welder and gently hammer into a circular shape.
- Then set the bands apart to required distance and use 3D pen to attach strips between the bands.

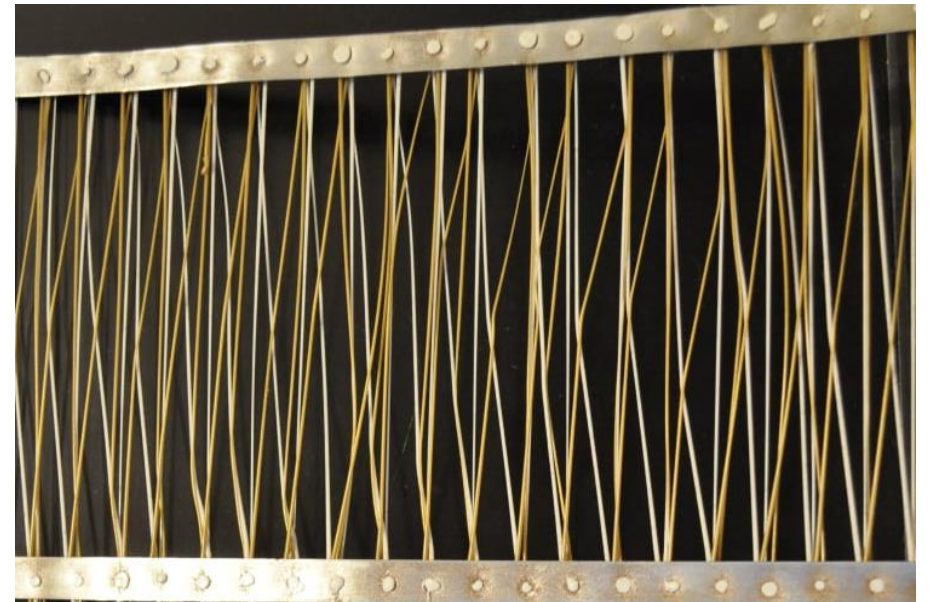
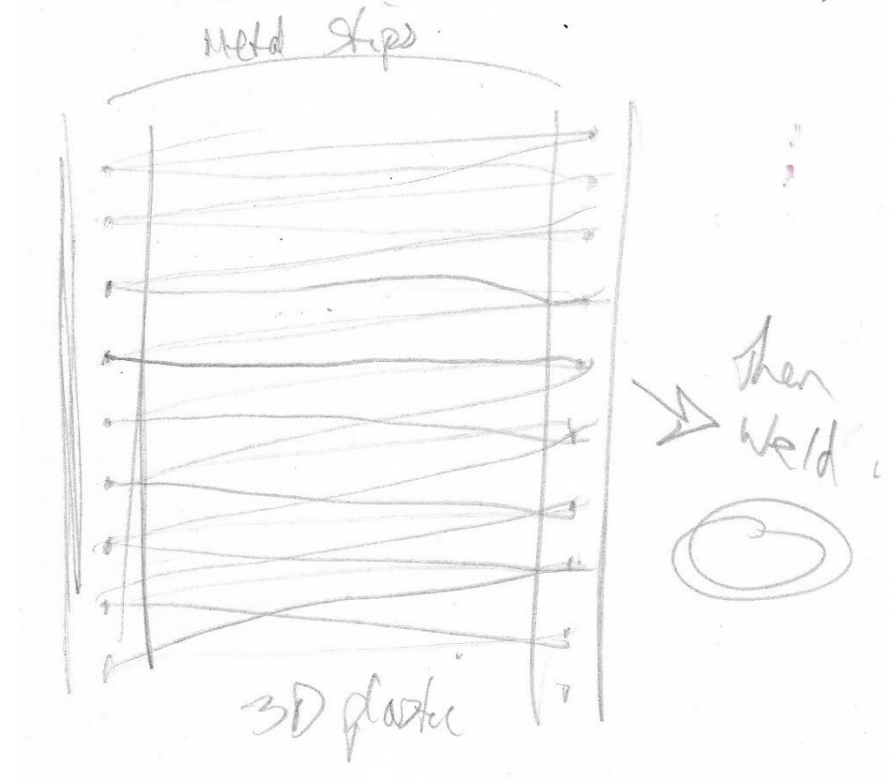


Attempt 2



My first attempt at the bracelets were successful in achieving what I wanted however I want to produce a much neater and refined version of this. The main problem was the plastic strips linking on the outside of the metal. In an attempt to rectify this I layered a slightly larger band around the outer plastic and linked it through plastic rivets. This was unsuccessful however due to looking messy and also top heavy causing the plastic to be lob-sided.

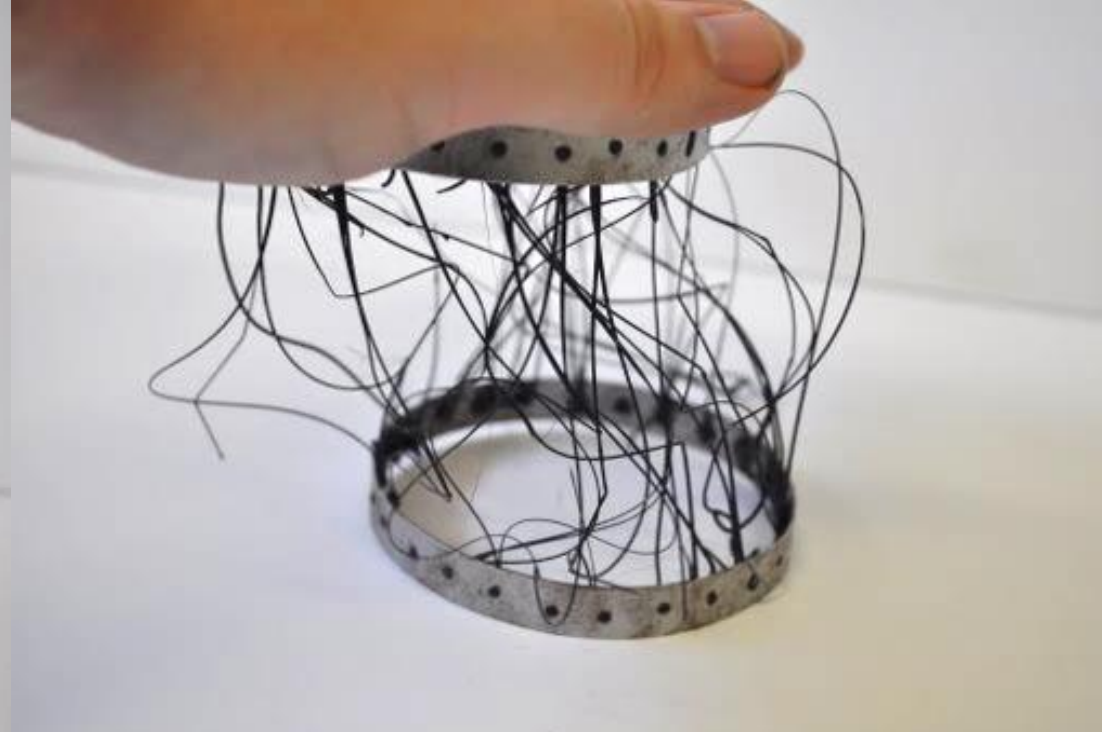
Design development



To try and solve my problem I used inspiration from my photos and previous sketches. I decided I could attach the plastic strips to the insides instead of the bands on the outside. Therefore when I make them into circular bands the start and bulky part of the join will not be visible

Developments

These are the outcomes of the second process of attaching the plastic whilst the steel is still flat and then rounding them and attaching them after. I am more pleased with these outcomes as they look neater and work better. My execution however can be improved greatly before these can be finished objects. I need to improve the stability and consistency of them and prevent as many breaks. I also need to consider colour further as the dots shown on the outside of the metal can be exploited to look better with the metal.



Research trip mid project to
influence and inspire technique,
colour, and pattern



For my research trip I visited papabubble in Amsterdam, a company reviving the ancient artisanal process of candy making. I wanted to go to a workshop where I could watch a handmaking process but something that is not exactly the same every time it is done. There are lots of variations including size, colour, and shape in candy production. I was interested in sweet making due to the rigorous and complex process and the variety of possibilities including pattern, colour and layers. papabubble specializes in hard candy and I was able to watch the process of making a batch from start to finish which was around 2 hours long, it was an extremely exciting experience.



The key is the heat as if it becomes too cold it will harden too much and be impossible to work so it has to keep moving and turning or in some cases heated for a short time in the oven. This sort of quality is similar to that of plastic which I am working with in my project relating to the heating and cooling and ability to manipulate and mould and this gave me some ideas relating how to work a material.

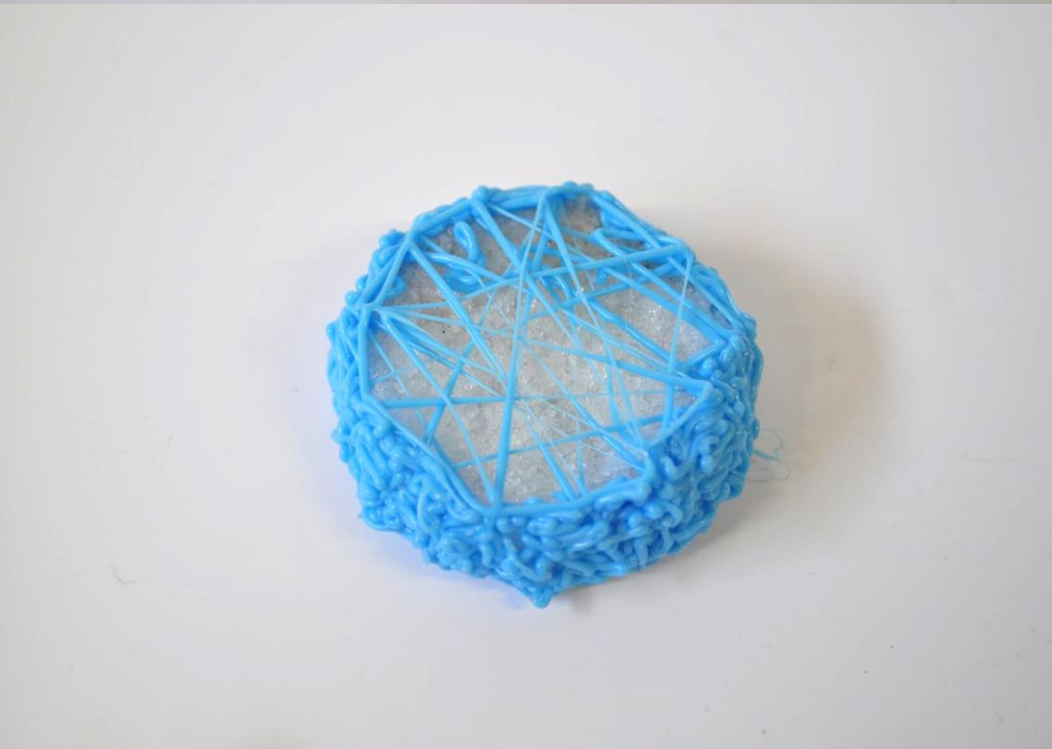
The texture and look of the mixture at this stage looks very similar to plastic through the shine and colour. At each stage I was attempting to envisage using plastic in the same way and thinking how I can incorporate certain techniques and ways of working the candy in my own work.



The final working of the candy is pulling from one end and stretching the shape into a longer and thinner one. Once thin enough at the end pieces are then cut off and are the finished candy pieces. The cutting process is very repetitive in motion however the size and cleanliness of each cut varies as it is done quickly without measuring. This process resonates with my ideas of repetition and imperfection and almost gives each sweet more character and individuality.



Another intention for my visit was to explore colour and what is expressed through the colours used in design whether intentional or random. I decided to visit some sweet shops as Amsterdam has an abundance of colourful and exciting ones. The rows of colours ordered in to sections and tones were vast and there was a great selection of shapes and shades of each sweet. I was interested to see how the colours would make me feel or view the sweet and I found that all the colours were rather uplifting I feel this may have been because of my knowledge and memory of the the sweet taste. The colours however again did make me associate them with a certain flavour. I was intrigued by the layout of the colours and which colours suited each other and worked well next to each other and integrated within other colours, and there was a huge range. I was thinking about what I feel or think when I look at my own work relating to colour and also texture and shape as all the sweets were different. The layout of the sweets behind plastic and the blinding colour also took away the sweet element and allowed me to view the range as simply coloured shapes. The visit gave me pointers and opened my eyes to the effect of colour and texture as well as an interest in experimenting with different shades and tones of a colour.



Following my research trip I was inspired to create some sugar based outcomes of my own. Sugar was of interest to me due to its diversity to exist in various states, as granules, solid, and liquid. I was particularly interested in the solid form as it can be broken and crumble and also turned in to the other two states. This sense of change and imperfection felt very relevant for my ideas. Using 1 cup of sugar and 4 tbsps of water and an hour in the oven I produced these solid sugar shapes. Inspired by the colours on my trip I covered them in various ways to produce a sweet like outcome. I feel the colours compliment the sparkle of the sugar well.

Further sugar and plastic tests



Sugar tests



I further experimented with sugar to find out how I could use it and how it can be affected by various factors. I applied water to the first, flame to the third, and water and flame to the second. The outcomes were somewhat underwhelming.

Sugar and water



Pre Hot water



In hot water for 2 minutes



In hot water for 3 minutes



In hot water for 5 minutes

I decided to explore how sugar and plastic react as one after hot water is added. This was to explore the possibility of having a plastic covered sugar piece and its wearability and durability. Eg. sweat if in contact with body. I was also interested to see the final outcome after the sugar had fully dissolved created an empty space where the sugar once was.



Testing
colours,
shapes,
and
patterns
with
sugar
and
plastic

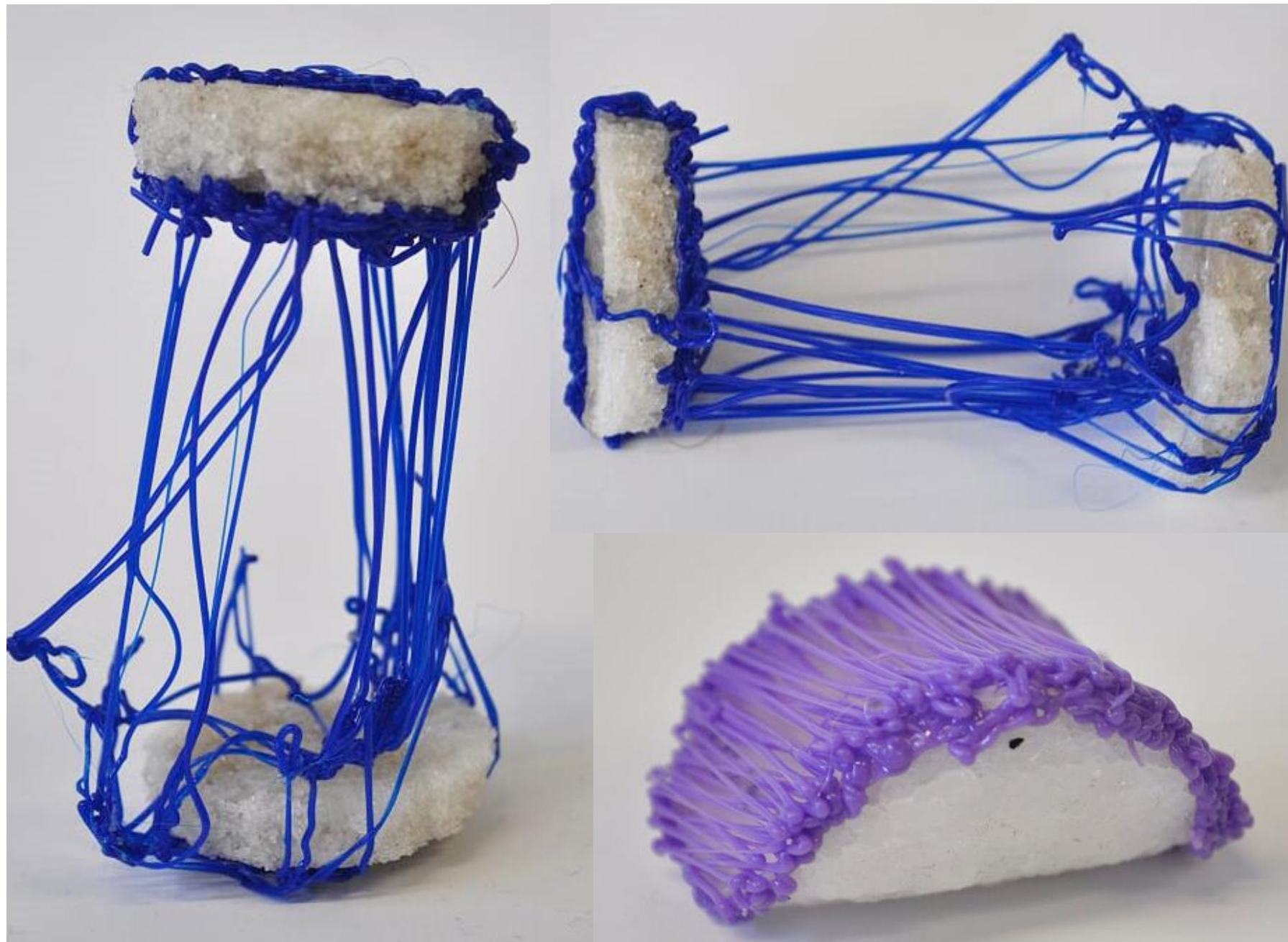


The previous sugar and plastic shapes showed similarities to those I created previously for my metal and plastic band with attachments. I decided it would be an interesting idea to simply recreate this using my sugar shapes. One problem I had was the sizes of the shapes as they did not fit within the steel casings. Therefore I had to attach them to the steel using clear plastic filament however it is very obvious and the piece looks very incomplete and messy. I also feel as though the sugar shapes and metal do not compliment each other as well as the plastic on its own.

Alternative
attempt to
merge
metal,
sugar, and
plastic



In an attempt to try and incorporate sugar in to my main designs I carried out some test using the same techniques that I had previously to create the metal and plastic striped bracelets. Using the sugar at each end acting as the band I attempted to wrap round the plastic creating connecting strips. However as the plastic does not stick to the sugar and no holes can be drilled without the sugar falling apart it became difficult and messy to create the outcome as the plastic had to be wrapped round and hold the sugar in place. I then also used pva to glue some sugar on to some card to create a sugar glazed surface which I could bend and then use the 3D pen to connect and decorate.



Research trip conclusion

My research trip to a sweet factory and sweet shops was very useful and influential on my ideas regarding colour and pattern, as well as techniques to treat and manipulate materials. I am keen on replicating aspects of the sweets and the sweet making in my work however, although the trip was very worth while and I am glad I explored sugar as a pathway and response to my trip I don't think using sugar as a key aspect of my designs is feasible as it is very delicate and creates problems that restrict my ideas. I will incorporate my successful sugar experiments when I can although I am keen to push the metal and plastic further as my main direction.

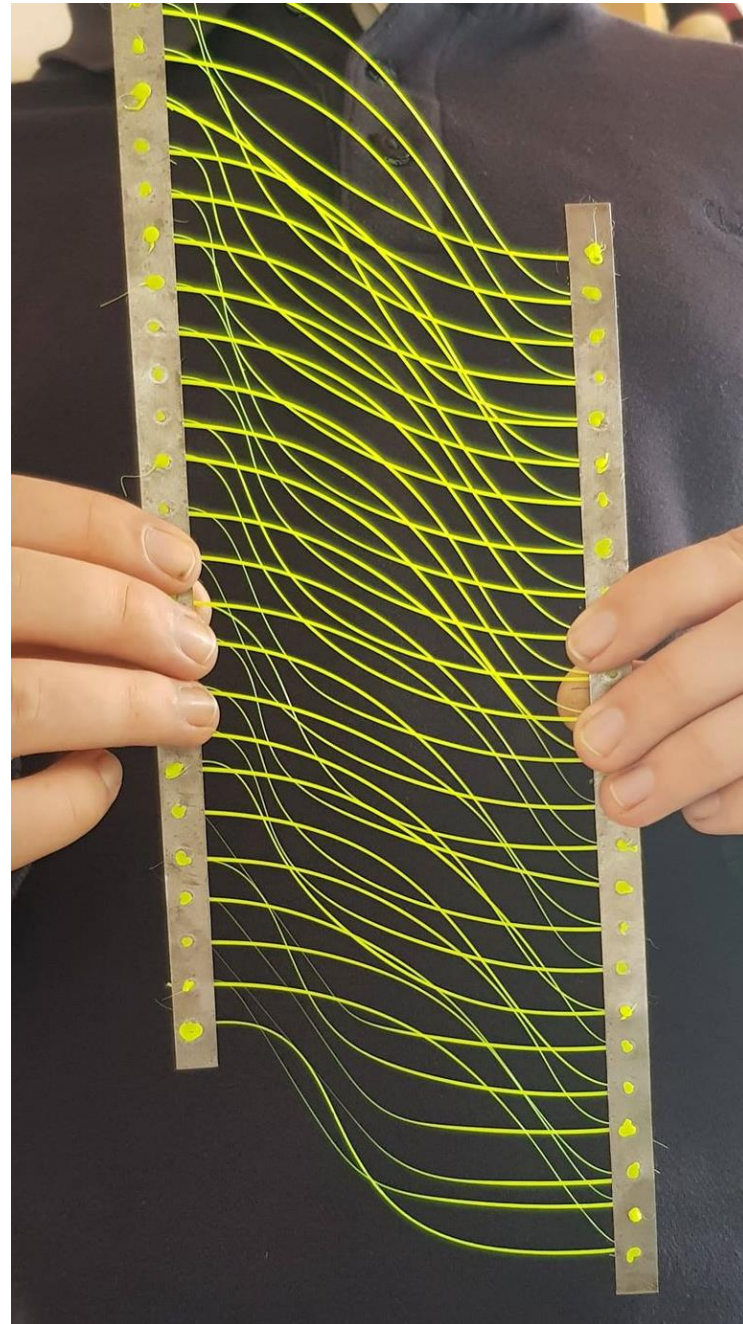


Turning my attention back to the
flexible bracelets



Failed experiment

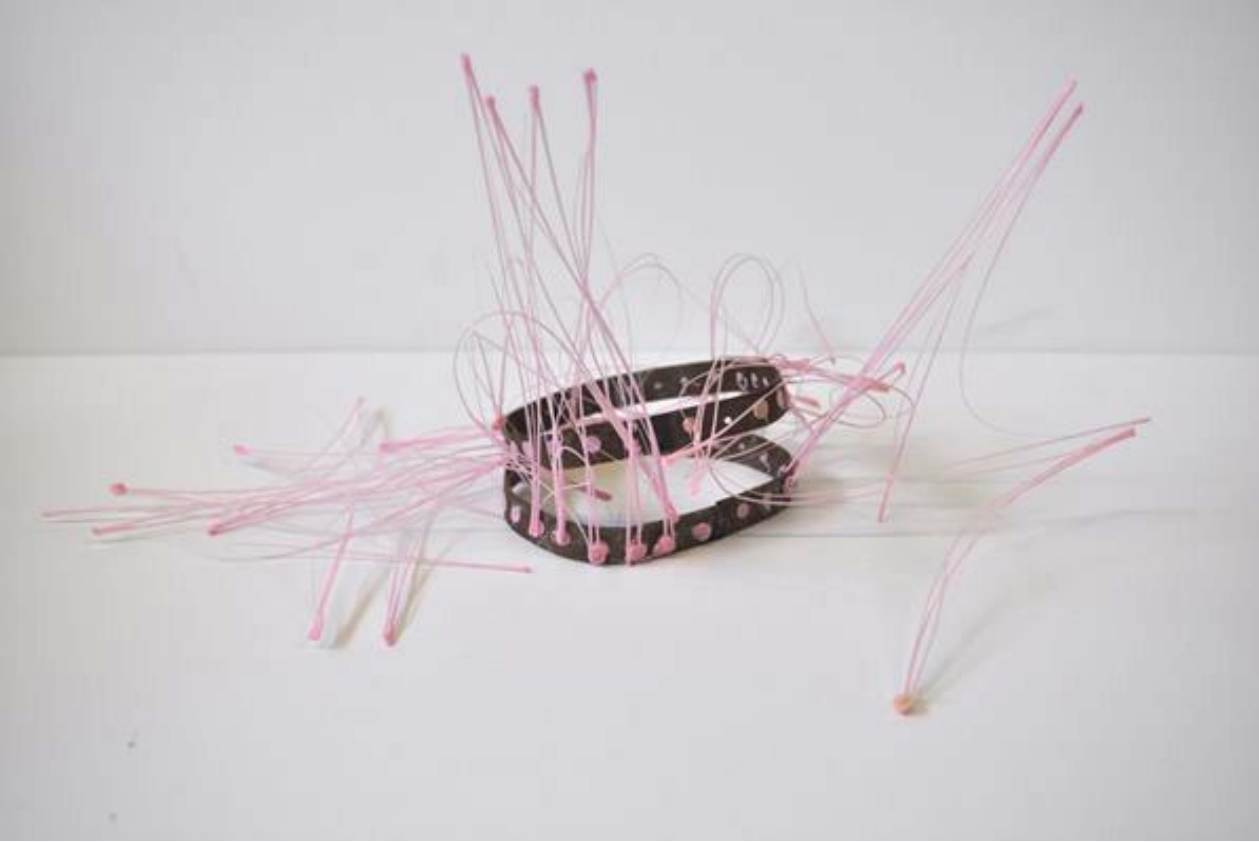
I decided to try another alternative technique of assembling the structure so that no holes needed to be drilled. Instead simply wrap parts of the plastic around the metal to create the strips. However as shown it was unsuccessful and was not stable.



Moving forward

After my failed experiment I concluded that the best way moving forward was to continue with my previous technique of attaching the strips while the metal is flat. This time however I was keen to pay attention to small details and make the piece as clean and as neat as possible.

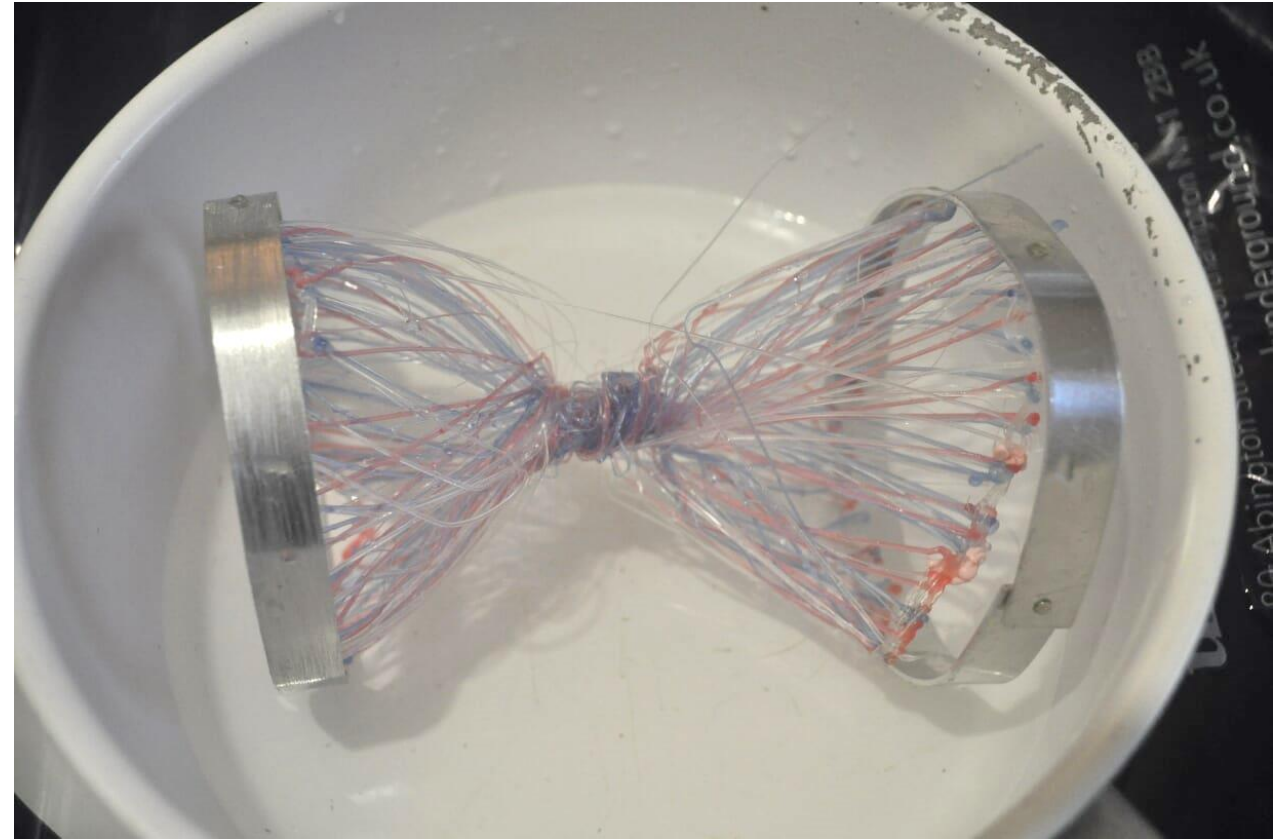
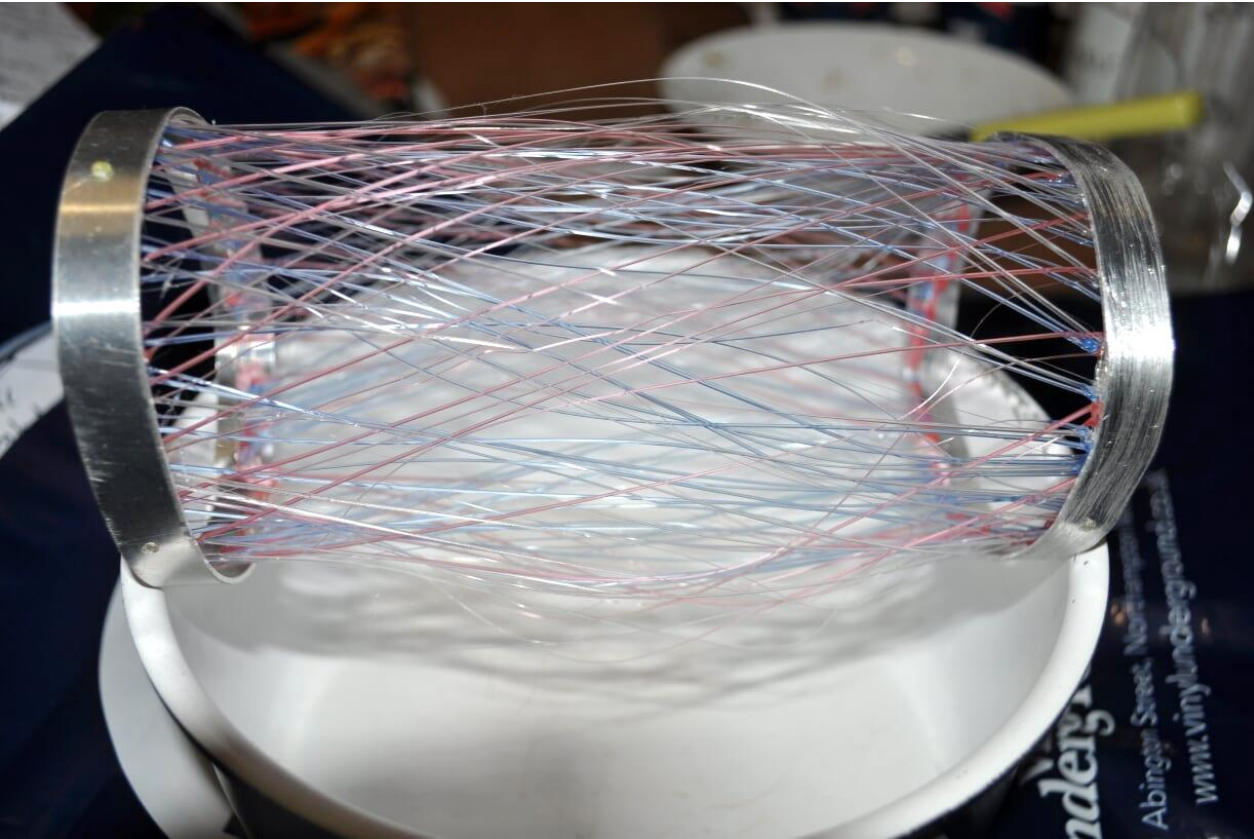
Testing the limits



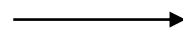
After assembling the newest of my bands I wanted to see how flexible and durable they really were. As my focus is largely on imperfection I was keen to embrace breaks and faults as long as the piece could still function. I pushed these two pieces fully so that the metal bands were in contact and these are the results. The pink bracelet has almost had all of its plastic strips detached and is clear that it cannot be pushed that far, similarly with the yellow piece although appears slightly less damaged. This has allowed me an insight in to how far I can push the plastic before it breaks completely.

In hot water

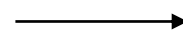
— Experiment to test how the plastic can be affected and manipulated



Pre application of hot water

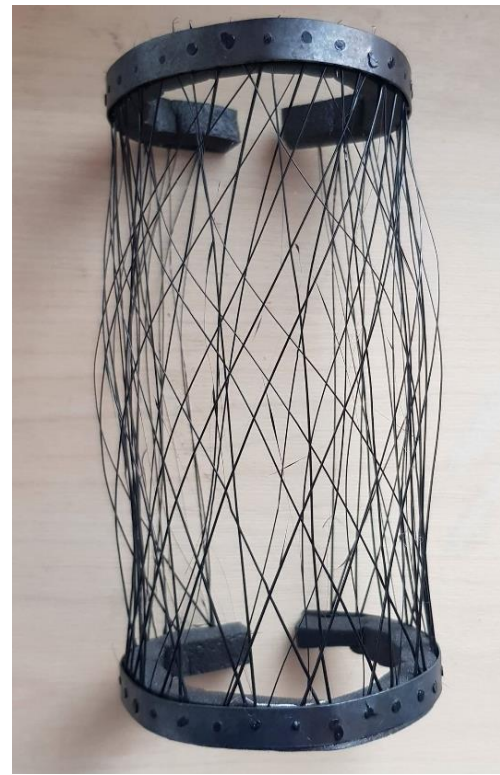


Add hot water



Twist the softened plastic

Comfort



In a push to develop and refine all aspects of my design I decided to focus on the comfort and fit of the bracelet on the arm. The plastic inner was not the most comforting feeling and therefore I looked for something softer. Something I came across was this foam tape which was soft and squishy and easily applicable to the band while covering the inside plastic. Although it is a basic material and technique it worked successfully in being comfortable and enhanced the fit on the arm, while also acting to prevent the plastic ends from detaching when squashed. This was a good starting point to find the correct inside covering.

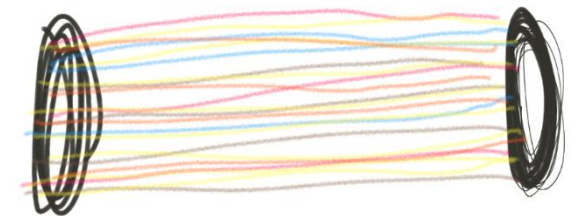
Colour tests



Another aspect I needed to develop was the colour of the plastic, whether being a single colour or a mix. To be able to visualise the colours together I carried out a range of samples of colours with each other testing all the possible combinations. This will be important for me to look at whenever I am deciding on colours to use.

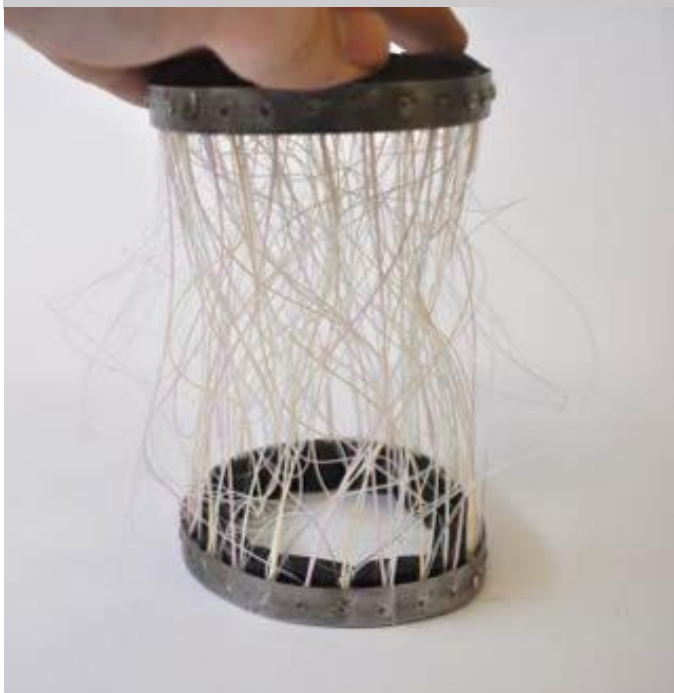


These are three developed pieces using all my so far successful techniques. I considered colour greatly in these and wanted to produce three very different outcomes to compare. The brightness and vibrancy of the purple enhances the shine and colour of the metal. The white and pink creates a more subtle look one which I am drawn to as I feel it looks the most smart. For the black one I also blackened the steel and it creates a solid and bold outcome. I am pleased with all of the outcomes and will continue to vary the styles and colours of my pieces. One downfall is the cushioning as it sticks out and makes the pieces look unneat.





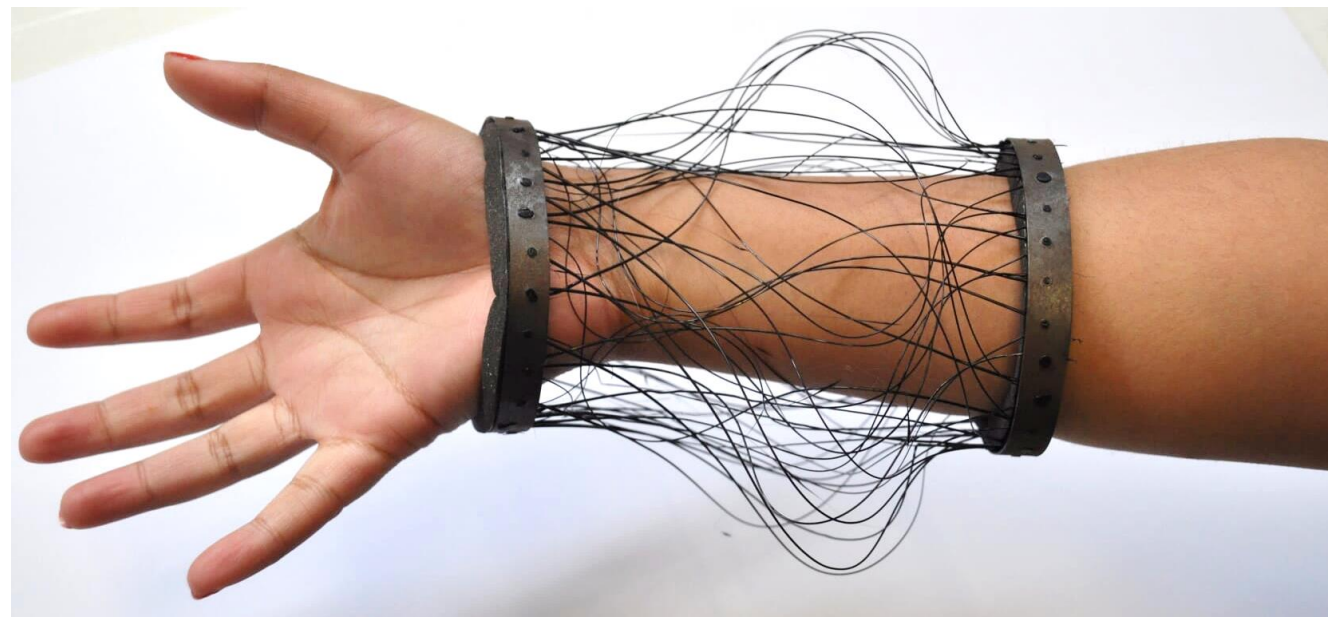
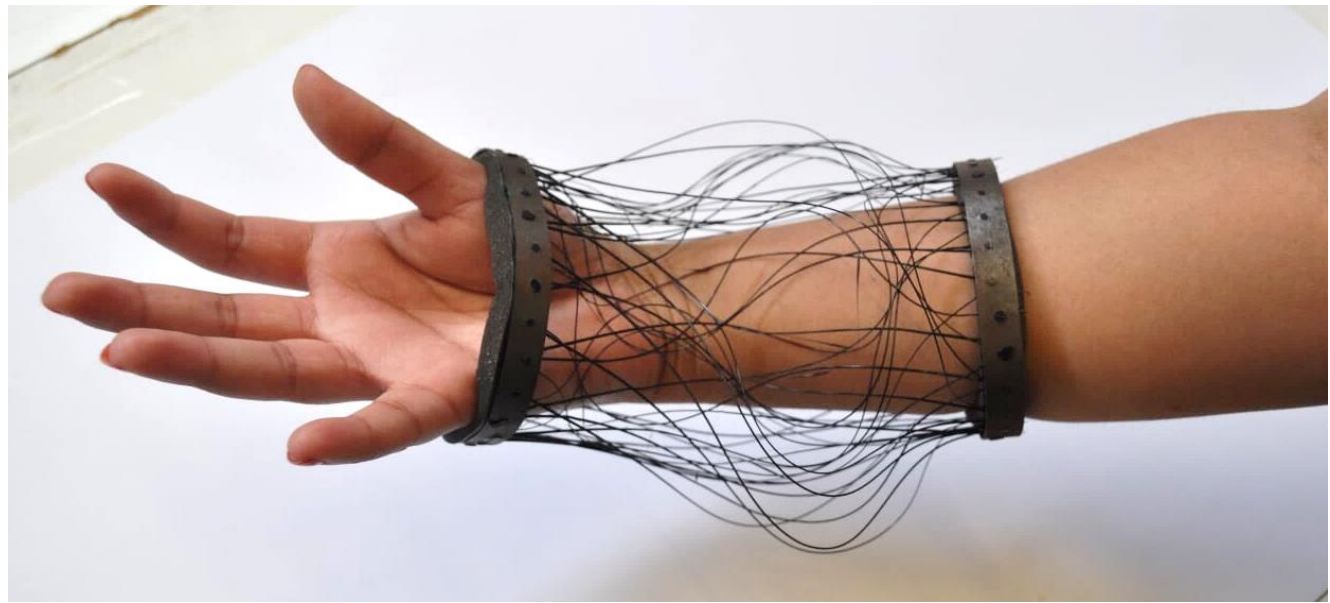
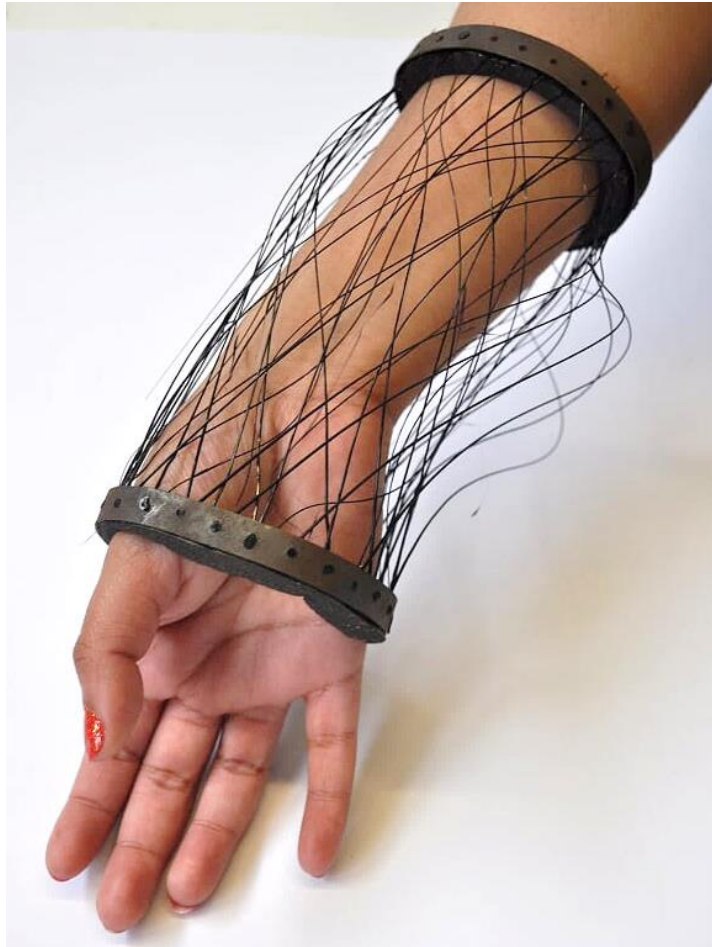
Pieces
in
action



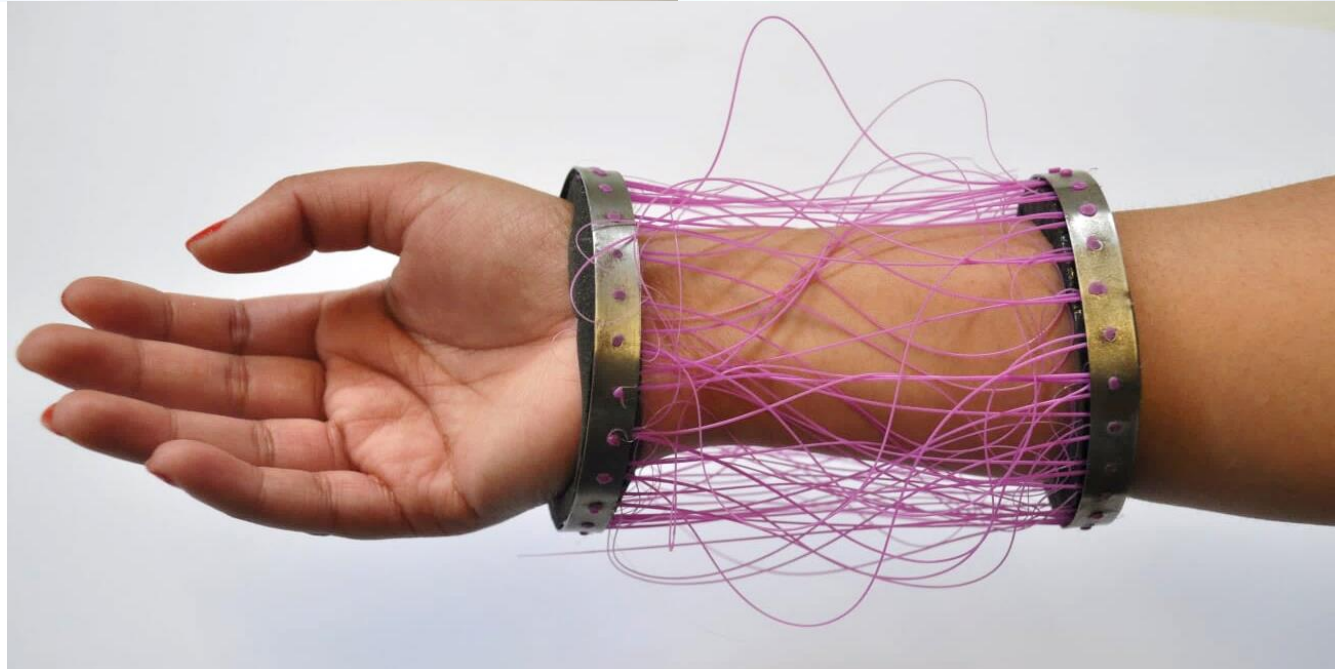
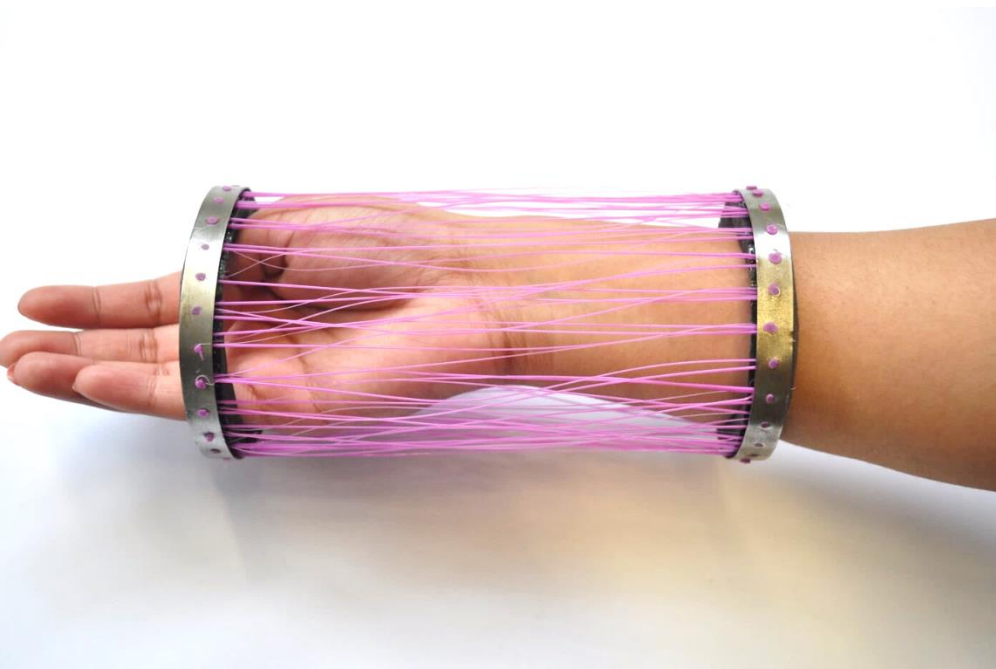
On the body



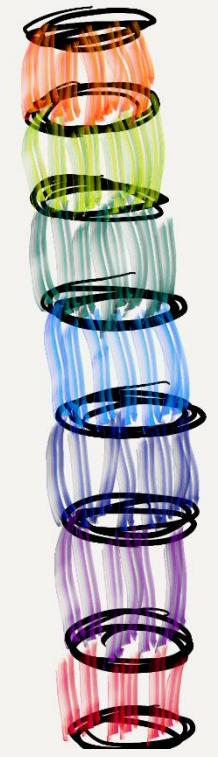
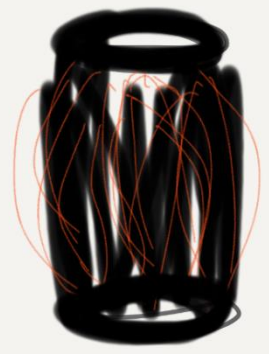
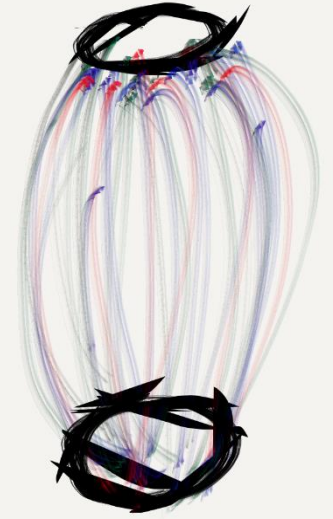
Through my flexible bracelet forms I am experimenting and learning how the materials can affect and be affected by the body in various ways. My aim is to make a form which can be worn on different areas of the arm and in each position be in a different shape or form, and that when the arm moves then so does the bracelet and it adapts and changes to the motion and position, transitioning with the body. The flexibility of the plastic allows for the whole form to change and move when the arm on hand does. It is sympathetic and adapted to the arms movement and creates random and various patterns through the fibre like plastic strips depending on the position.



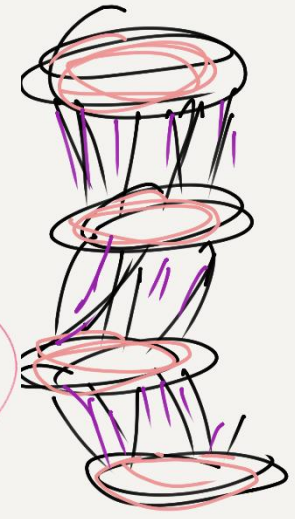
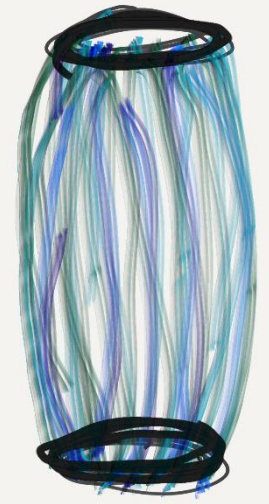
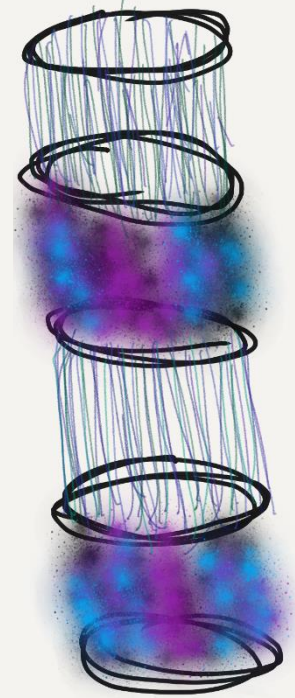
The most exciting part for me is that the plastic strips will be in a different arrangement for every slight movement or change of position. Also as the plastic is moved and stretched more and more it then does not return to the exact same resting form.



A key area of focus for me is also how the bracelet can sit still in different positions on the arm depending how far up it is. With the soft cushioning on these current bands it allows for stability of position once past the hand. The small breaks of the plastic is also something which I can embrace as imperfections and characteristics of the piece.

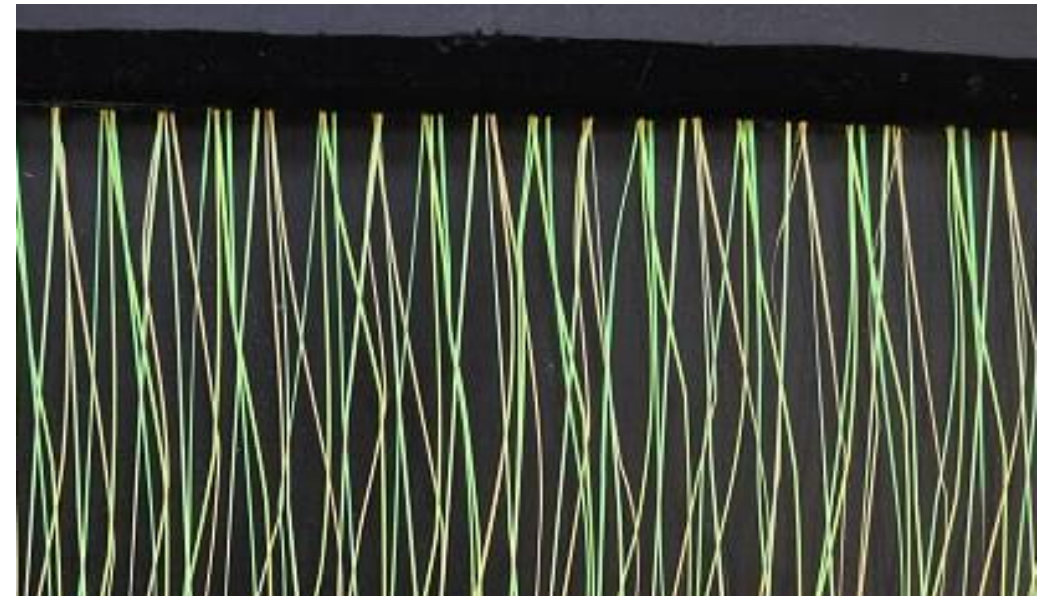
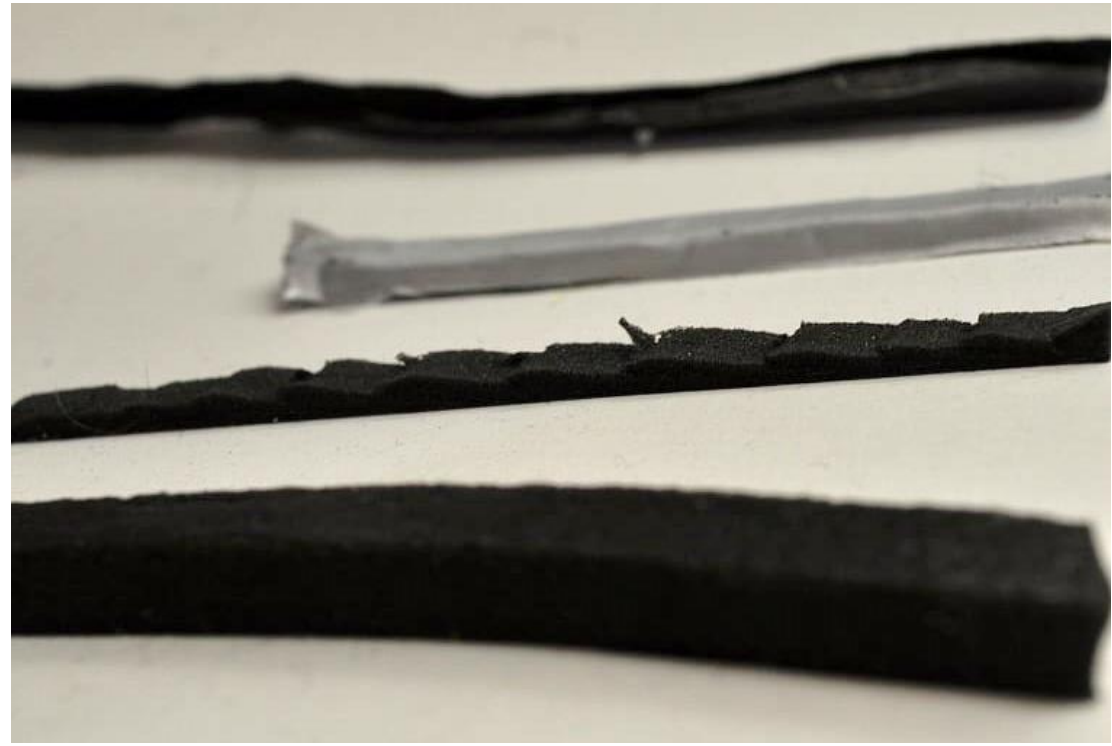


Design ideas



Testing fabrics

An attempt to find a solution for the inner of the bands

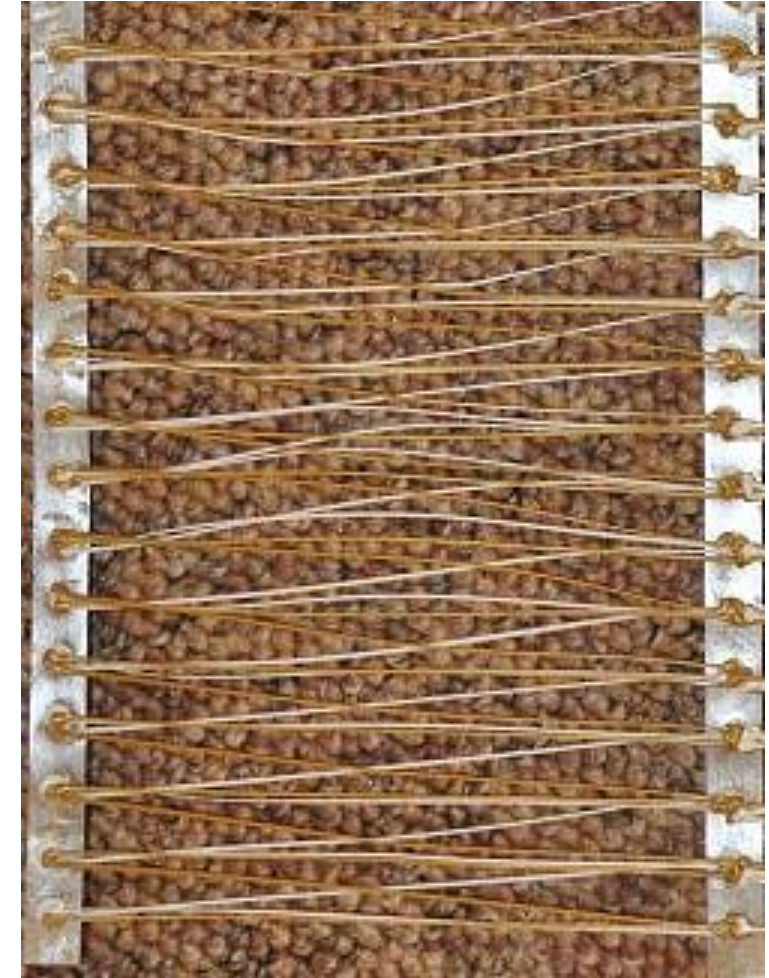


Process and techniques for Aluminium

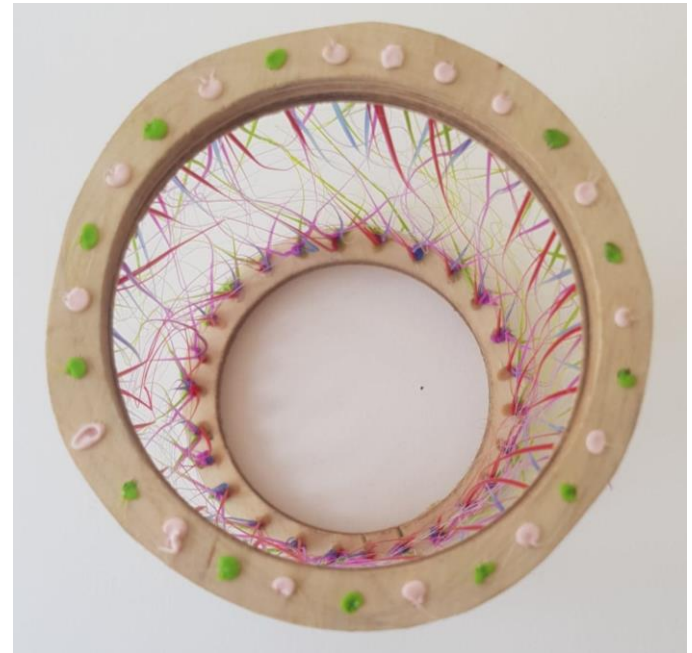
2. I am also experimenting with different numbers of holes in the aluminium for aesthetic purposes. However this means that the inside has to be fully connected between each hole and may cause problems in bending and may also come loose.



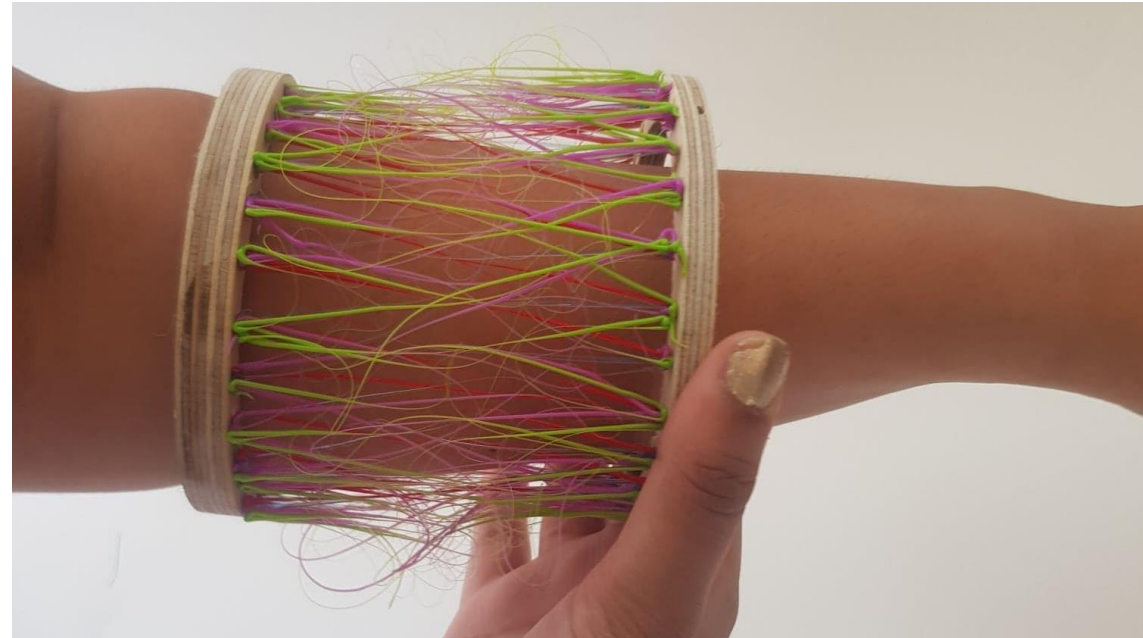
(in comparison to my previous technique)



1. I have decided to try other materials other than steel due to the finish and linking of the bands. I am exploring aluminium as it is clean and shiny as well as being soft and malleable.



I also did a test in wood to compare to the metal and to resolve the inner comfort problem. I am pleased with the outcome however I do not think I will take it further due to the finish and colour of the wood as I prefer the metal.



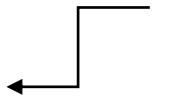
Colour and pattern + joining tests



Engraved, spray painted, then sanded back



Aluminium



Rivets



This shows a test I carried out to exploit the texture and finish of the solid layered plastic in addition to the metal bands (aluminium). The contrast of the materials here is heightened and creates a unique aesthetic which I will be keen to incorporate in further pieces alongside the flexible strips of plastic.

Process and technique improvement



After assessing my methods and analysing the pieces I came to the realisation that I had been making the process more difficult and complicated than was needed. I began using a cylindrical former to create the plastic shape independent of the metal which I had been doing previous to the introduction of the metal bands. Then after this simply connecting this shape to the inside of a pre made circular aluminium band with plastic rivets.

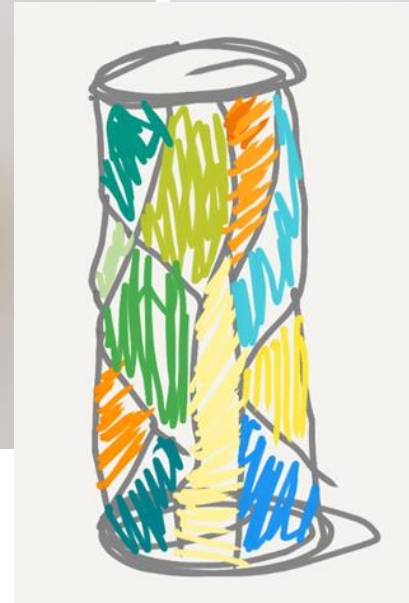


After rediscovering the use of a former I decided to experiment further with a more detailed and intricate pattern. Using the same technique of connecting between two plastic sides I created various lines sections to produce a repeated but irregular pattern form. This effect has given me new ideas in developing my patterns even further and making them more diverse.

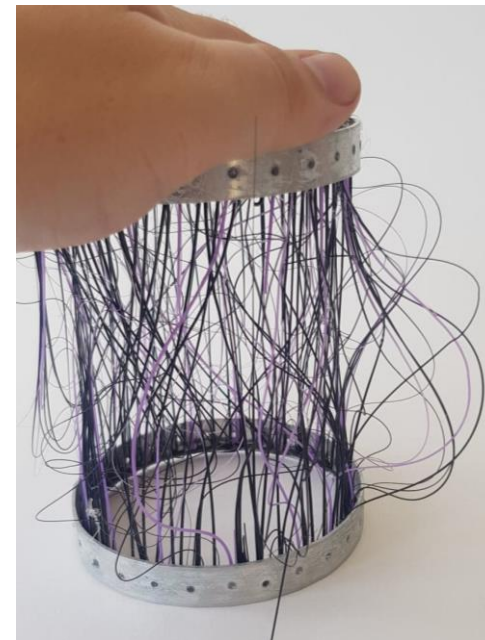
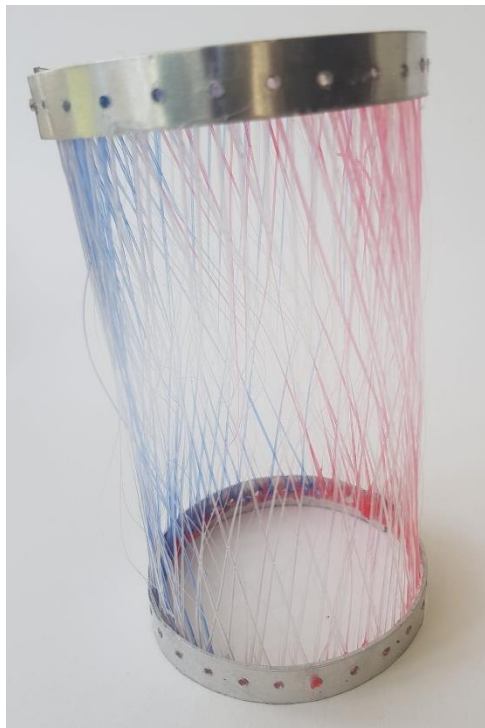
The final outcome with metal



I am excited by this piece through the colours contrasting well with the aluminium and the see through element of the pattern producing layers as you look through.

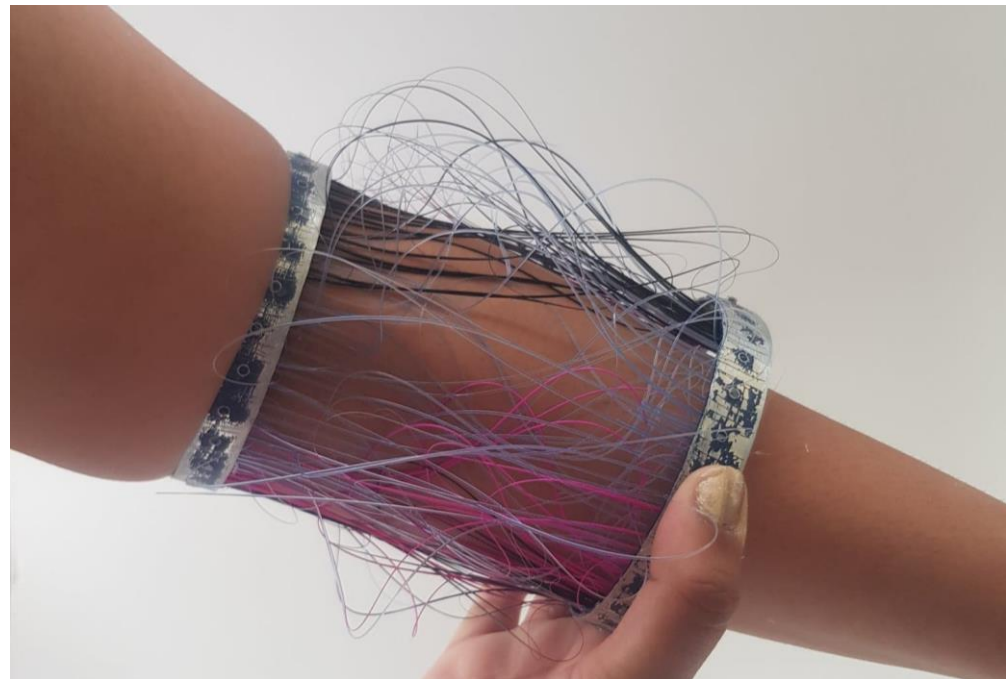
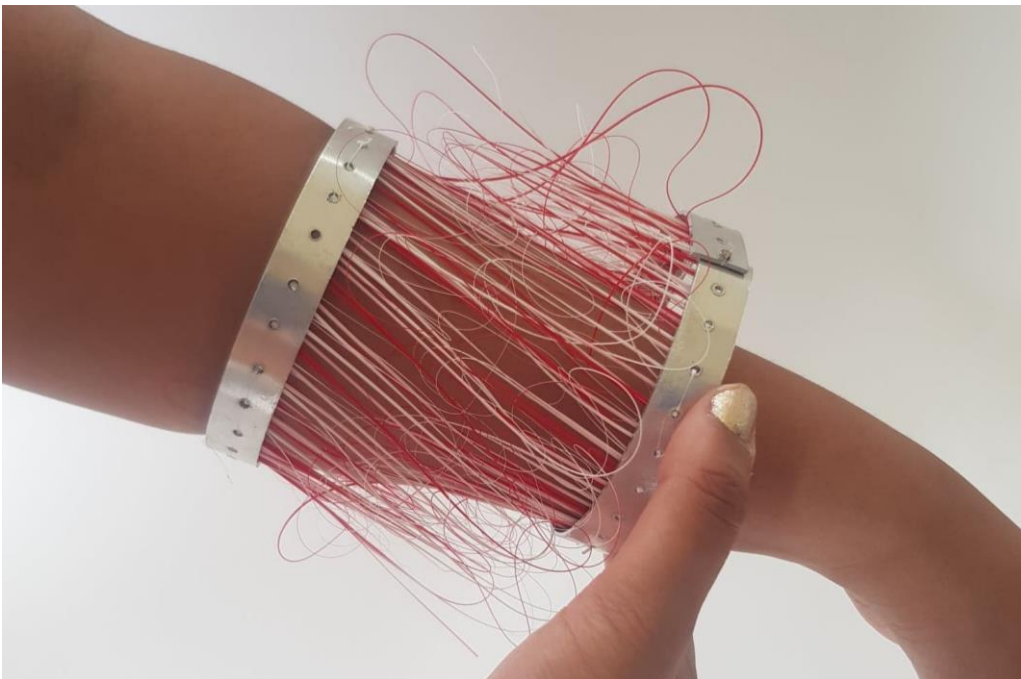
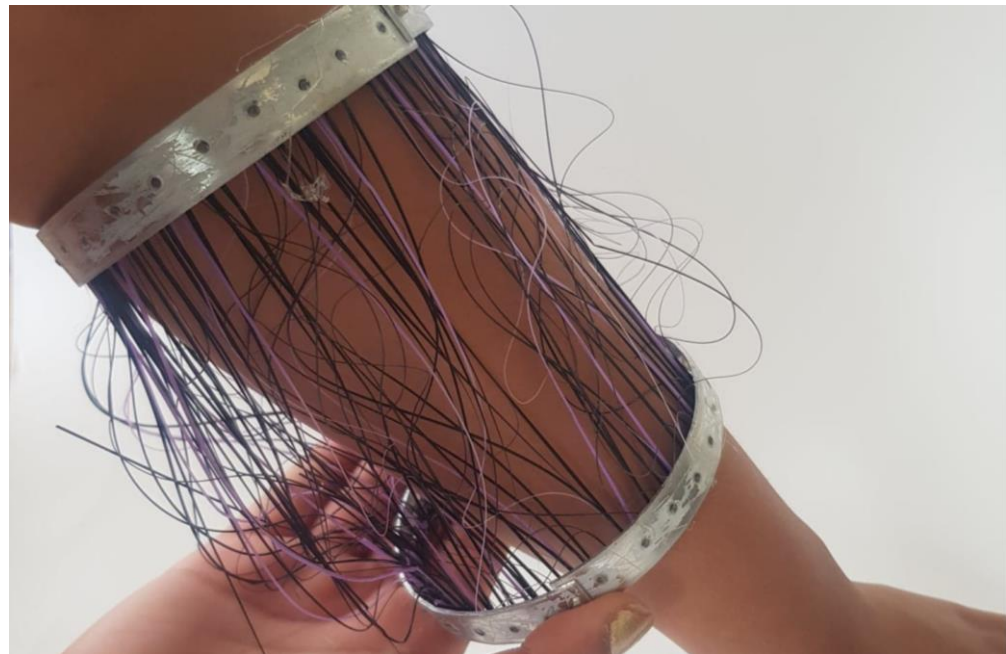


Most up to
date
designs
-
3d pen and
aluminium
bands

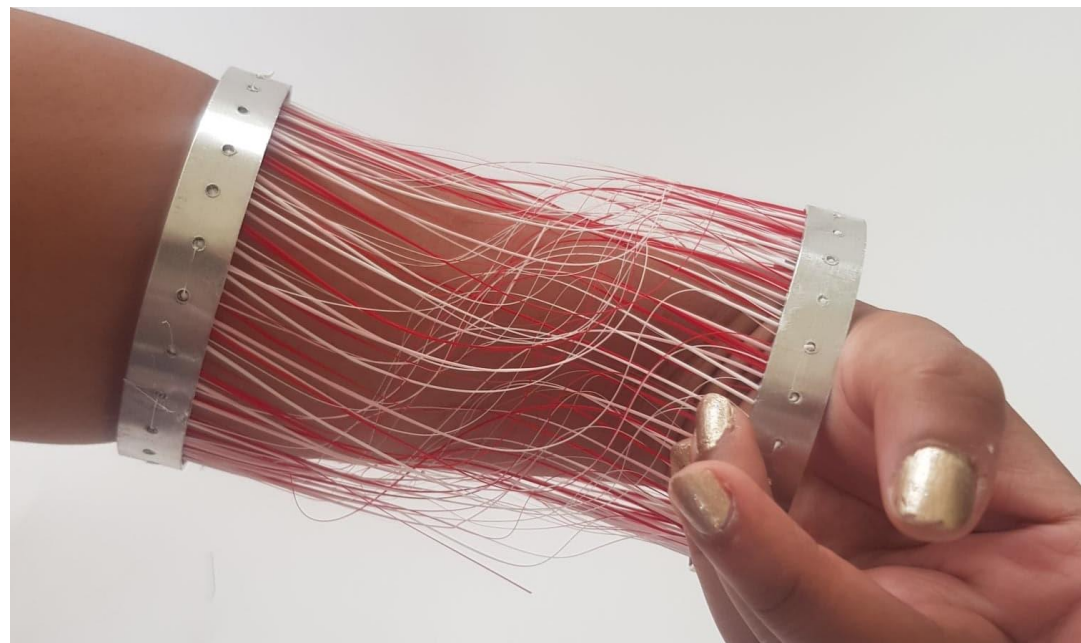
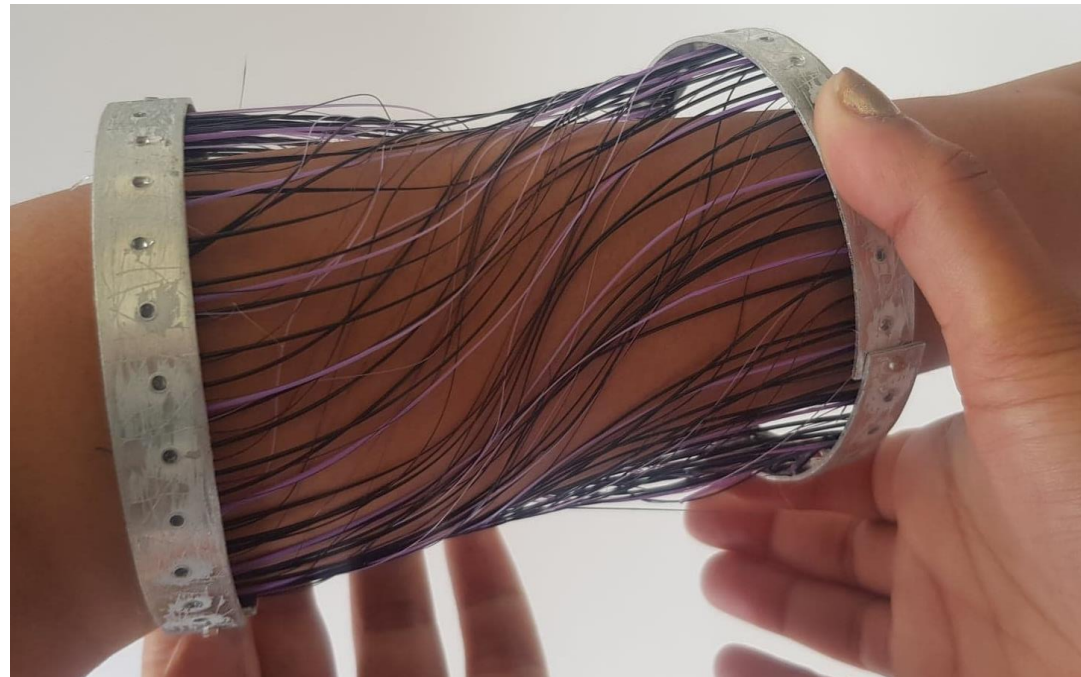


These pieces are all made using the same cylindrical former as shown previously, this process has allowed me to create quicker and neater outcomes. I have also explored a variation of colour mixes and pattern applications of the plastic

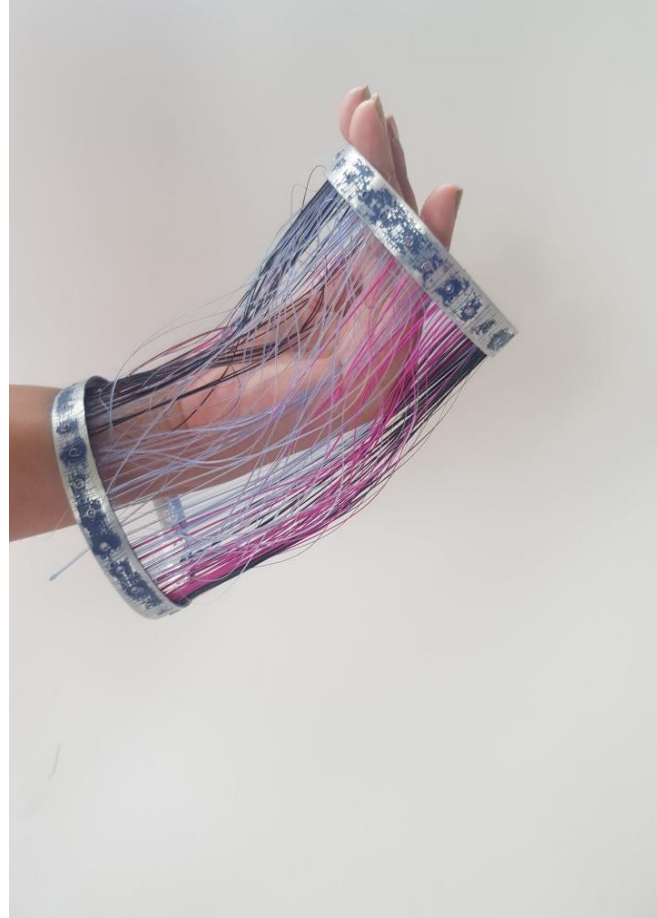
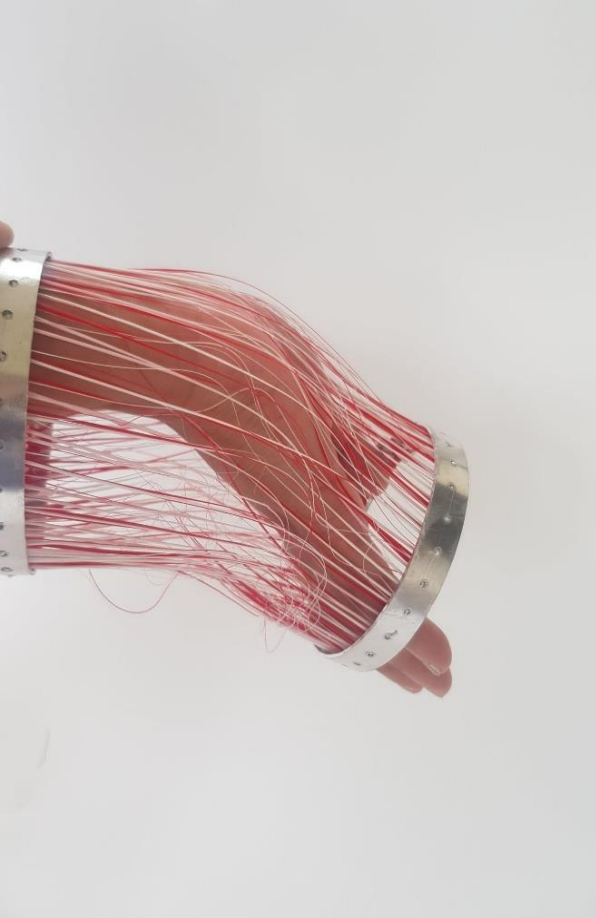
Push
it
And
Squish
it



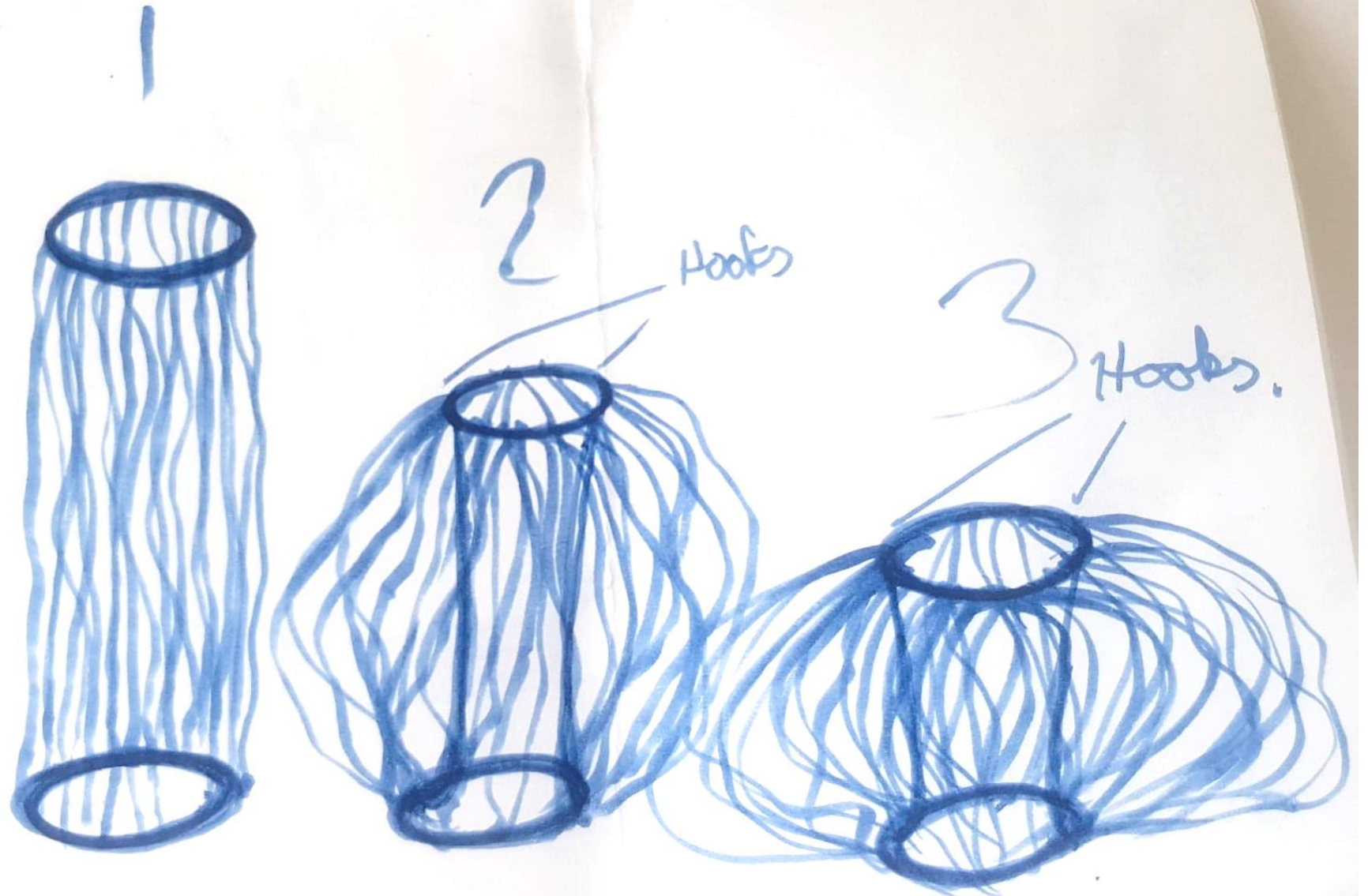
Twist
it

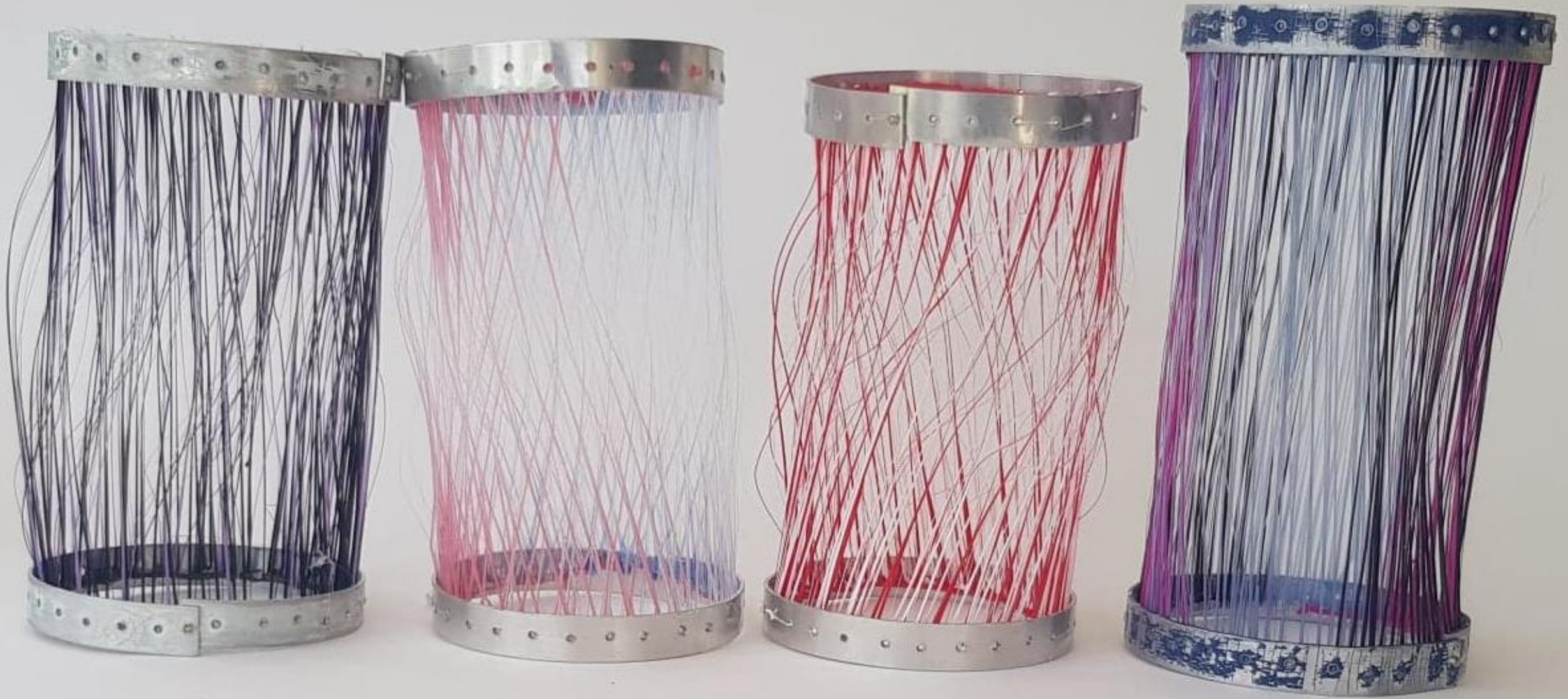


Bend it



When thinking of ways that my pieces could be presented I wanted to be able to show various positions that it can be in and therefore I may need to apply hooks or fishing wire so that the plastic stays in position to show a range of states that the piece can exist in.





Moving forward I plan to continue making bracelets in this style using my most recent method. I intend to continue to produce a wider range of patterned pieces and also colour ranges while always refining and developing my making.

Summary – My project has been largely guided by the materials and the things I find out about them. My outcomes are a product of trial and error and experimentation in techniques and materials and also a development of my making and design skills. I am pleased that the outcomes appear a product of my focus areas of pattern, repetition, and irregularity.

