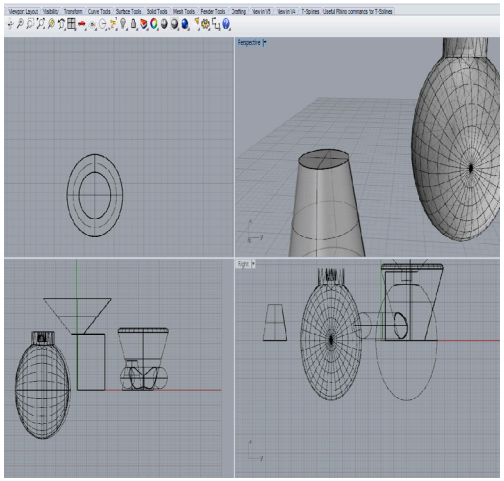
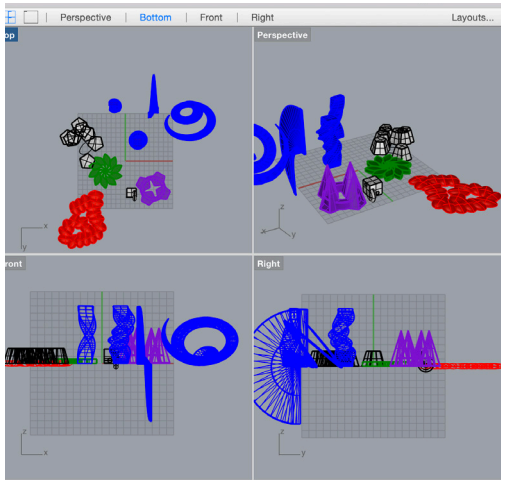
Beyond the Screen

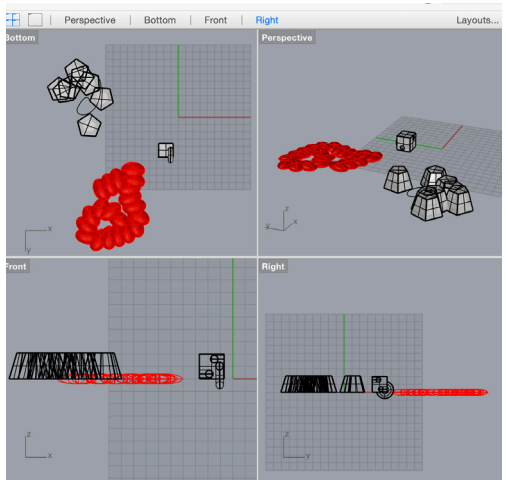
Caroline Pile



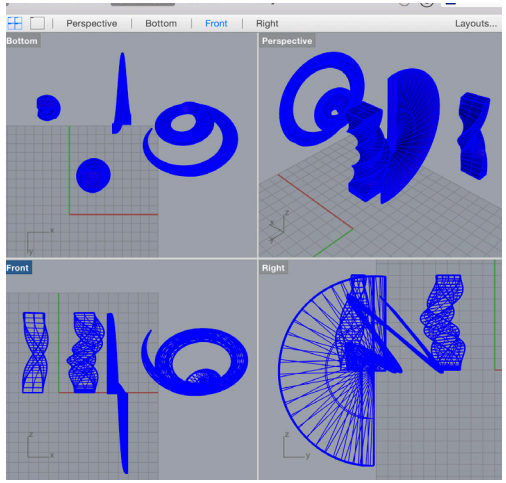
As a group we initially stared using Rhino.



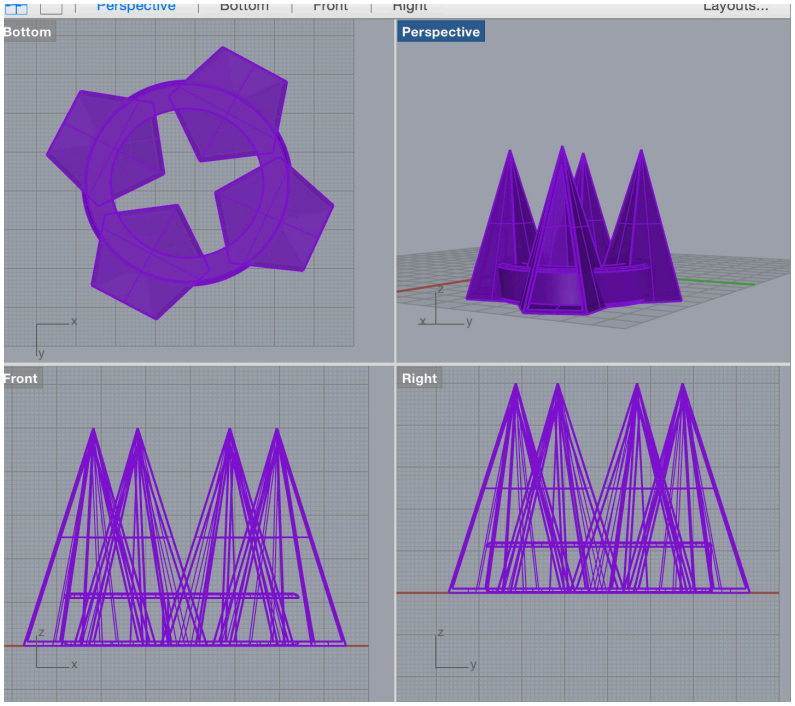
Using the skills I gained from group exploration of Rhino. I continued to practice on Rhino.



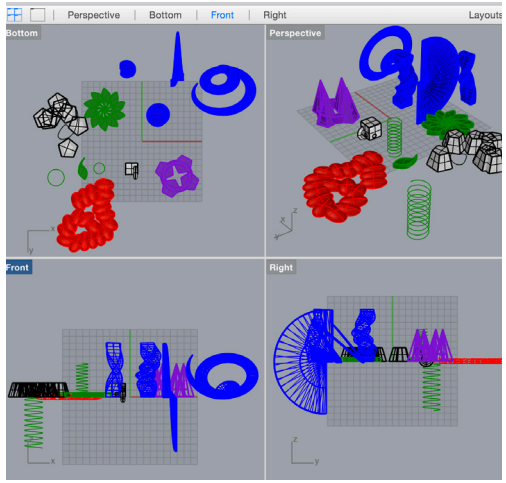
I practised the 3D model tool and different array tools



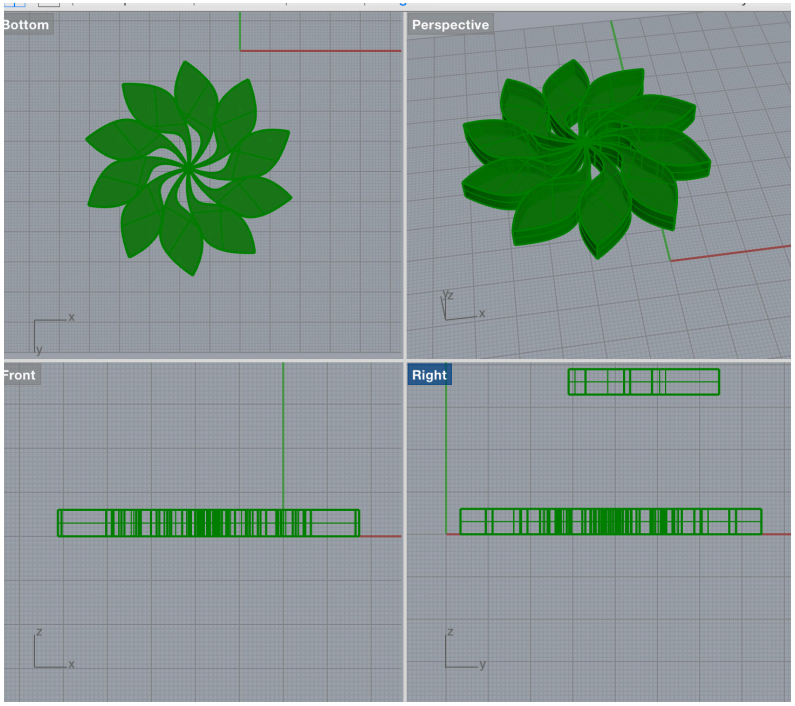
I played around with the twist tool, using it on the same rectangle but in different directions.



This shape was created by using the torus tool then the Fillet tool on both edges of the short cylinder. I made the pyramid and rotated them to the right angle. Finally, I used a shell poly surface to delete on of the side so you can see the interaction. Between the 2 shapes.

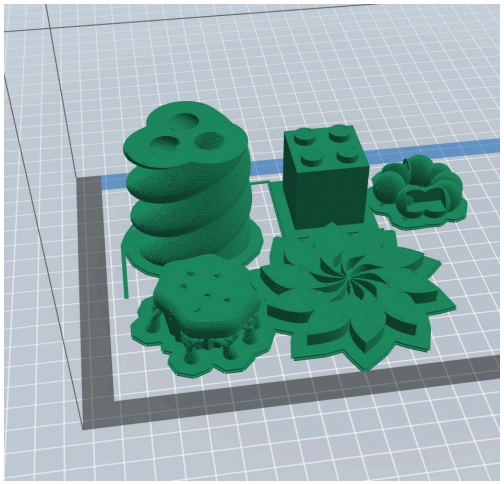


A collaboration of all my practises.

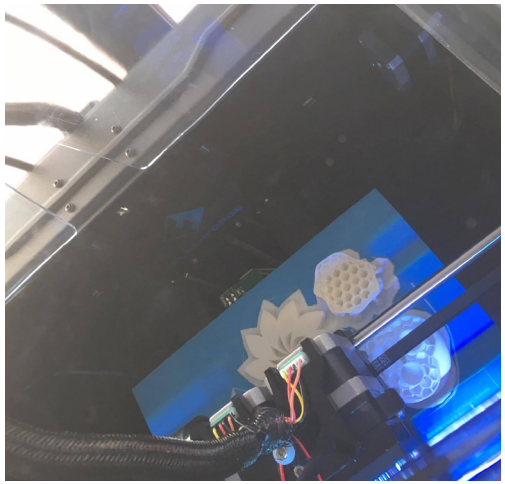


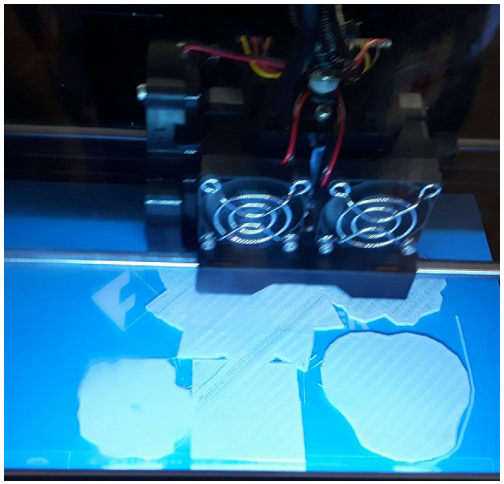
To create the flower I drew out a rectangle, where I curved the edges to made it into a leaf shape. To make it a solid I extruded it through straight. To create the flower shape I used the array(circle) tool. Finally to make it one solid I boolean difference.

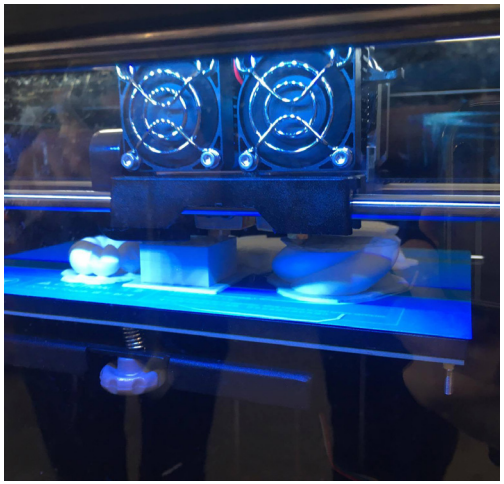
The final result of my 3D printed flower



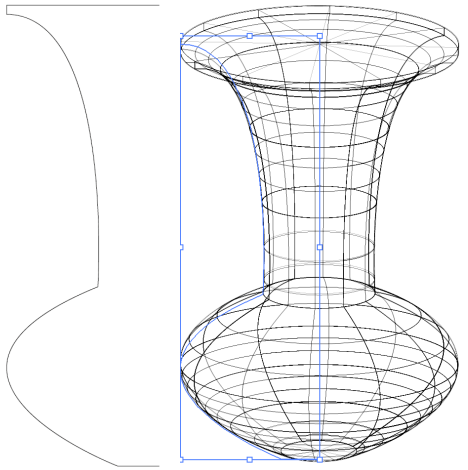
We placed all of our objects on flash forge to be printed adding supports and rafts when needed.

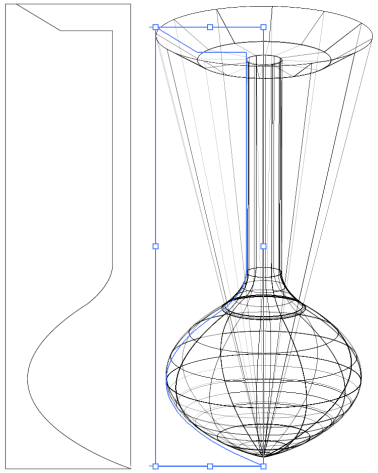


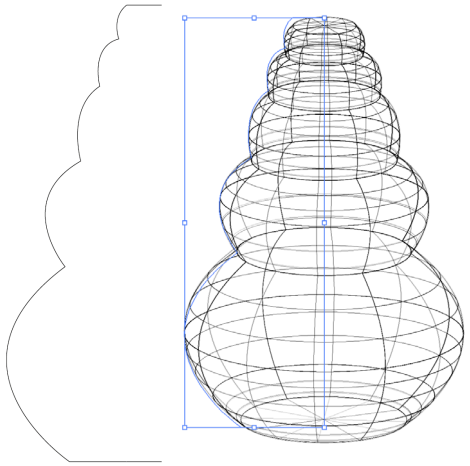




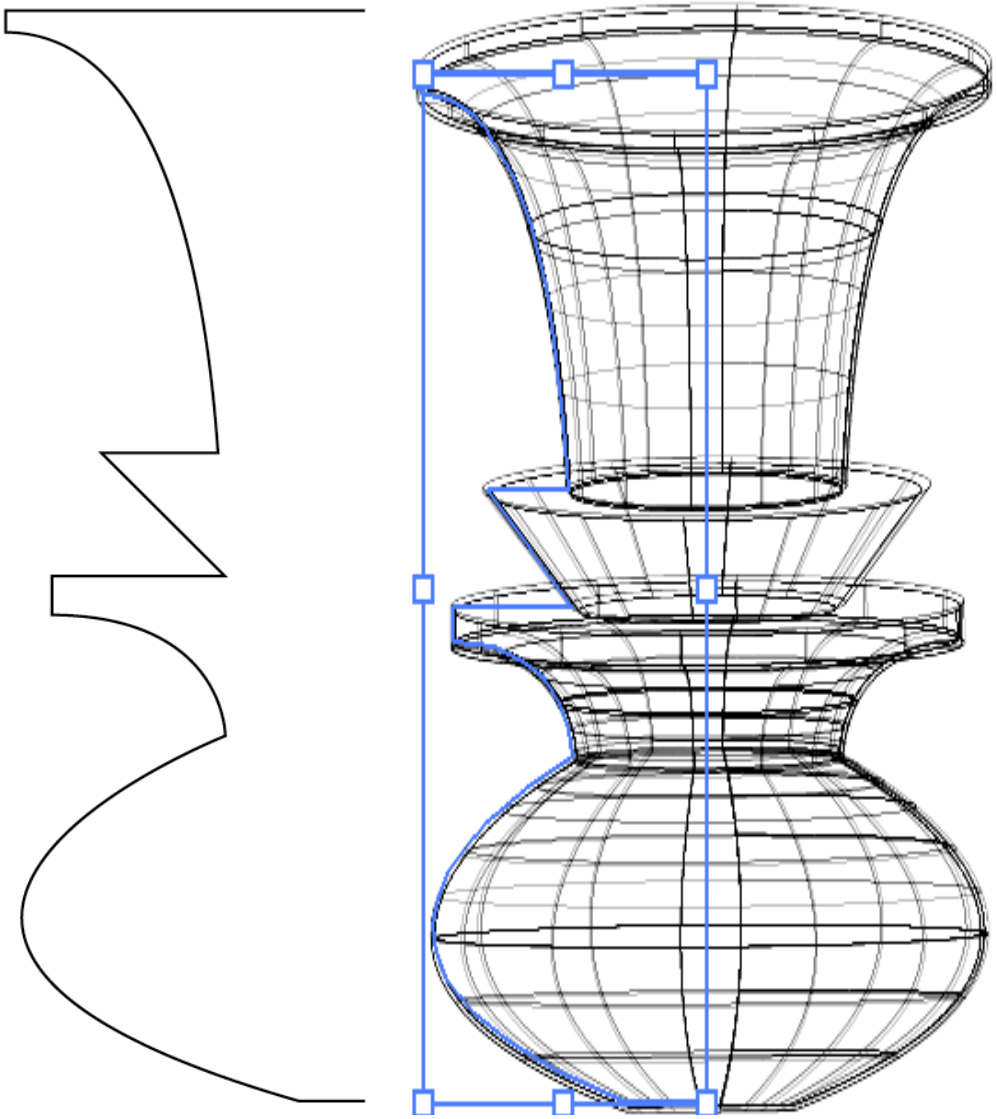
All of our objects getting 3D printed. using the creator pro printer and white PLA.

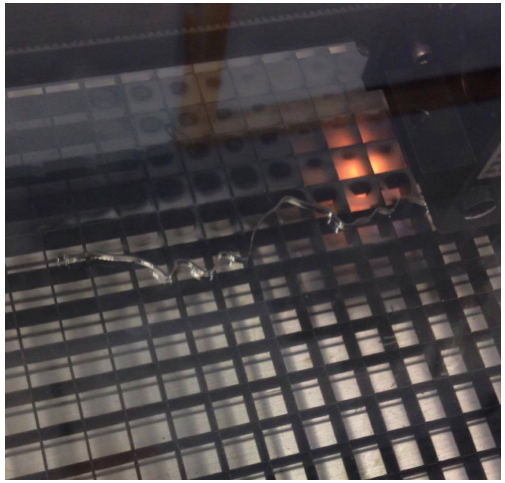
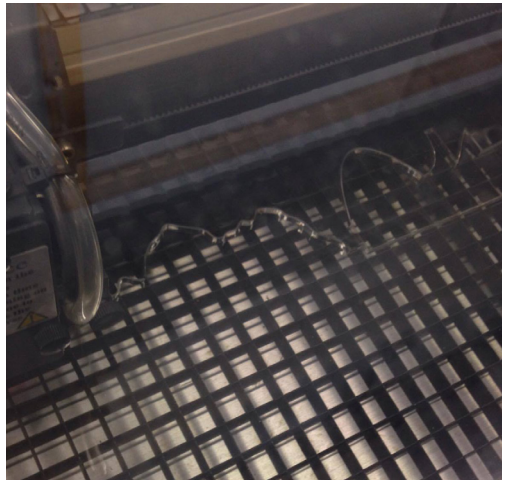
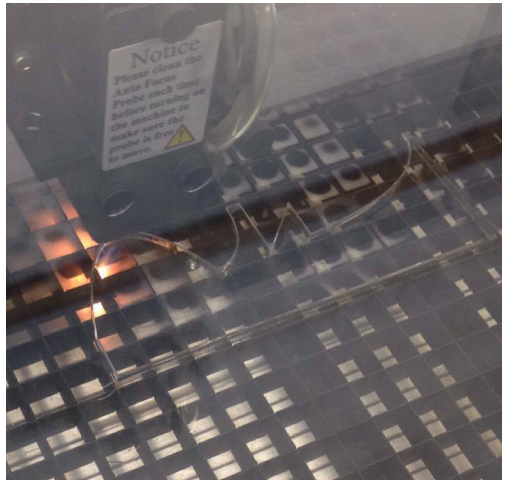






I draw up a few ideas for a possible turning profiles. I settled on the larger on as I thought it would be interesting to see how the smaller point bits would turn out. Julie, Saul and I put our profiles together to turn on the box.



Using 5 mm acrylic. We laser cut our shapes, changing the speed of the laser and adjusting how many times it repeats the cut, to give the best result.

The groups turning box.



A shelf was added tp the box to place the profiles on. It was screwed on so that it would move.

We had to wrap Hessian around the turning bar to make the plaster sticks and makes it easier to get of the bar.

We started to aply the plaster but found we need to wait abit as it was too watery.

It slowly started to build up slowly.

It took 3 people to apply plaster and 1 person to turn the 5th person help in any other way possible.

We found that you couldn't lump the plaster on, it wouldn't stick to it.

It looks very satisfying when the plaster is has formed the shape.

The final product. We found out the he small points were to fragile and fell of when we bash it to take it of the pole.



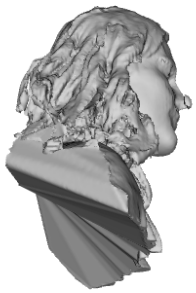


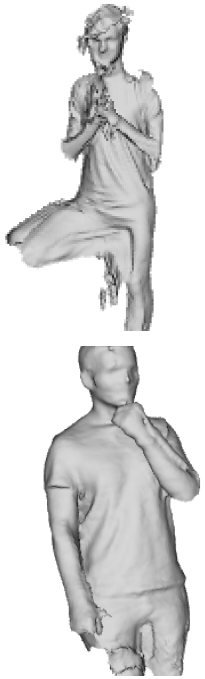
Julie and I visit Idat to use their 3D scanner. We foudn out that ithe full body scan cuts out your shins.

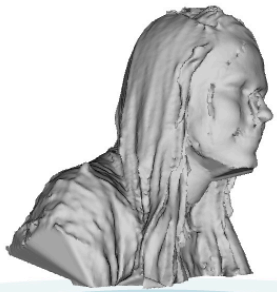
As a group we though we would try out a few different and interesting posses to see. We wanted to test the scanner and see how the scanner would react.

Julie and I also found out that if you are doing the upper body it is beat to it on a chair and spin rather than move the scanner.



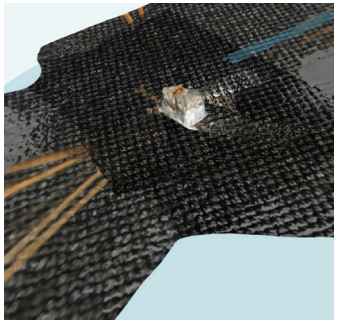


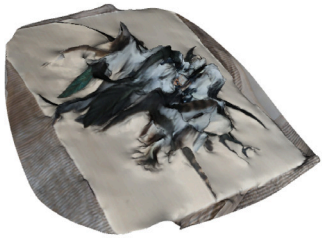
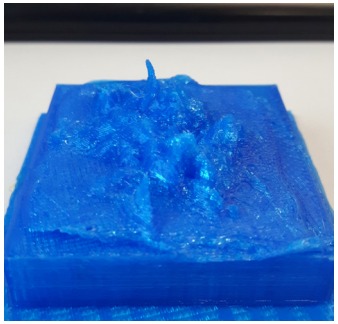
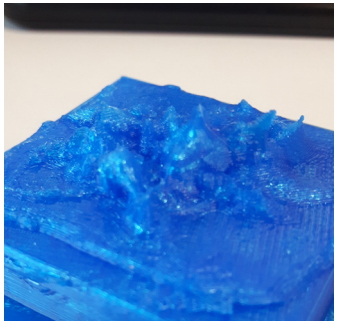


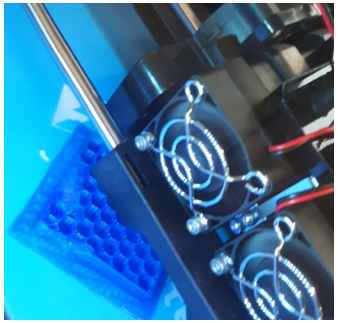







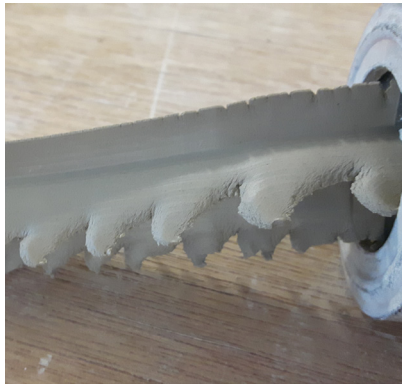



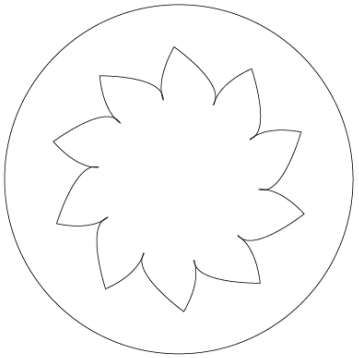







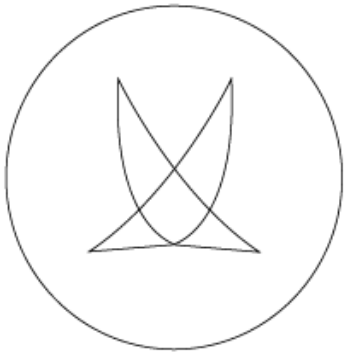
In the top corners are the original remake models that I did. However, I only took a few photo. I reused remake using lots more photos and came out with a much better result. Where I was able to 3D print the object as well. The original object was a dream catcher in a heap on a table





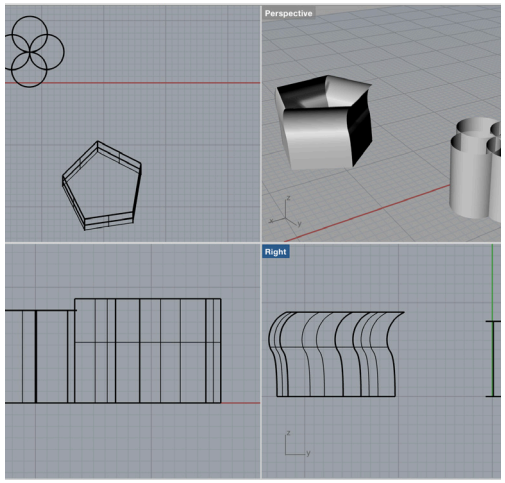


We individually made our own extrusion dies, but laser cut them out together. We help each other when it can to extruding the clay. As it was usual to have some to extrude and someone to catch the clay. I played around with the extruded shapes and Christopher Riggio suggested it would make a good addition to a pot. He showed me how to throw a pot and I was able to make 2 pots where I used the extrusions differently.





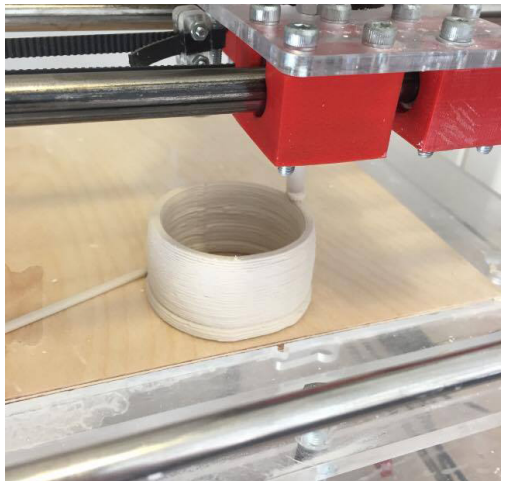
We drew out a sheep shape to be used on the plotter cutter, we also prepared are names as well.



Using rhino we all created simple shapes to be printed, but unfortunately we didn't get to print.

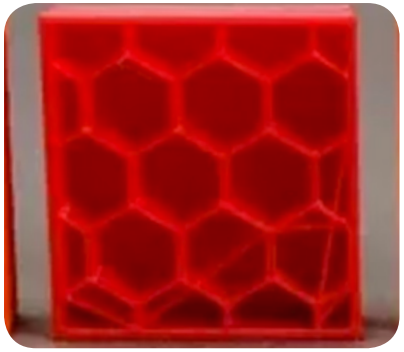
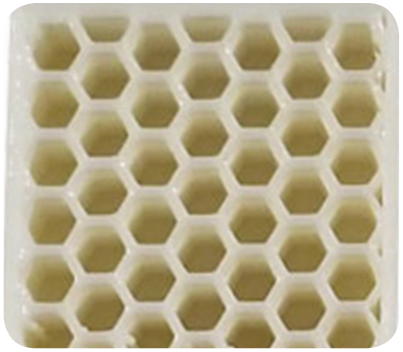
We all pitched in to prepare the clay for the ceramic 3D printer. We had to push it through a Sieve twice and add a bit of water to the mix. We all took it in turn to try and push the clay through.

The sheep was then cut out on vinyl using the plotter cutter.



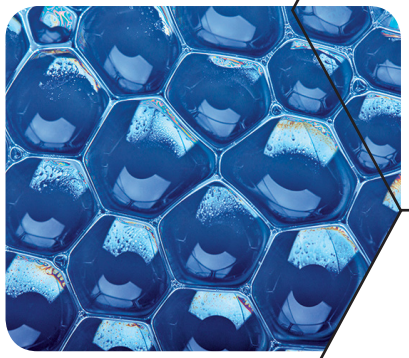
Even though we didn't mange to print we were able to see the printer in action.

The prepared clay just before it got put into the ceramic 3D printer.

A few photographs shows the interior structure of 3D printed objects. It has the Best infill for strength vs material used.





Hexagons are commonly found in nature especially in Bee hives. This is because the hexagon requires less total wall length. Darwin once said using hexagons is " absolutely perfect in economising labour and wax.."


A company in China has managed to use a 3D printer to print full size house. What's most remarkable is that they were able to build 10 house within 24hours. Th printer were 10m x 6.6m. The printers used a mixture of cement and construction waste to build the houses layer by layer. As they were printed this means each house cost less 5,000 dollars to print.


Another way to 3D print a house is by printing it brick by brick. A company in Amsterdam used this process to create one of the first fully sized houses. It is being built out of a plastic heavily based on plant oil. They claim that the house is waste-free and eco-friendly. They suggest this is the new way cities should be designed and built.

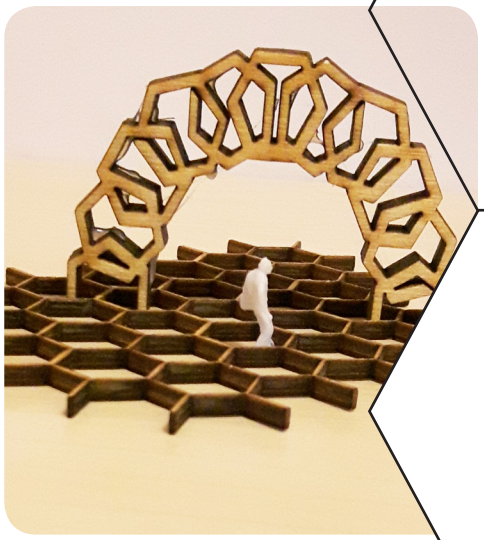
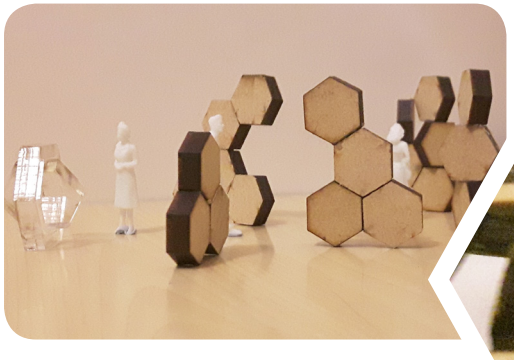
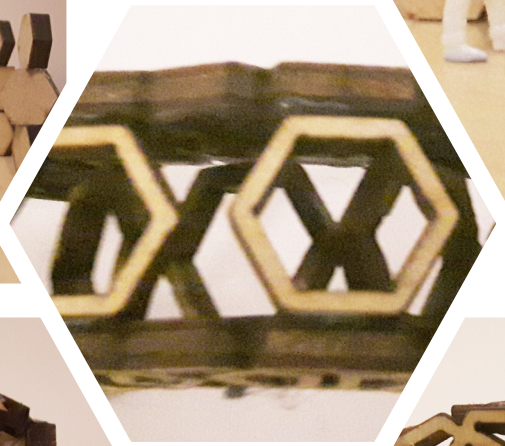
Olaf Deigel

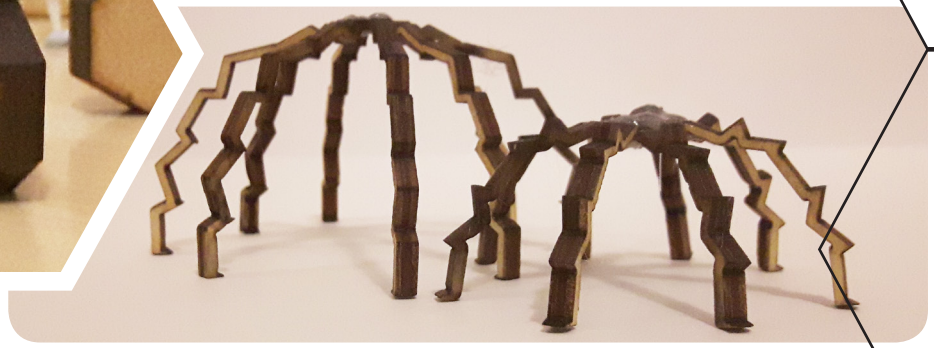
He is a product designer who is testing the capabilities of a 3D printer by printing functional guitars. I really enjoy the way he shows of the structure of the guitars. He uses that as part of the main aesthetics of the product.

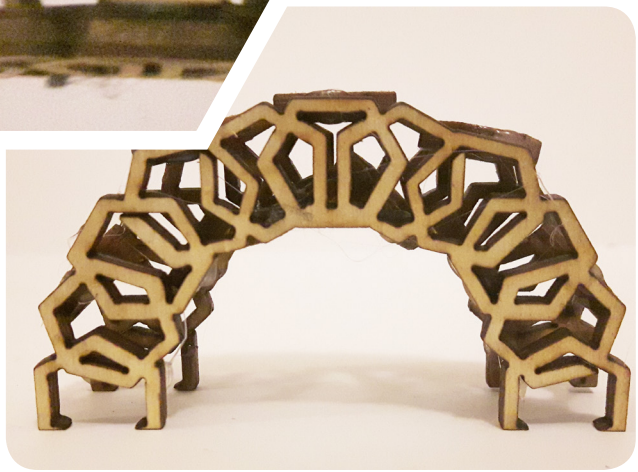
Kebong Kreod

Kebong Kreod structure is a portable wooden structure, that was revealed in London and designed by Pavillio Architects. It is constructed from Kebiny which is a sustainable alternative to tropical hardwood. The Kebong Kreod structure resembles 3 seeds to create an enclosed structure using a series of interlocking hexagons.

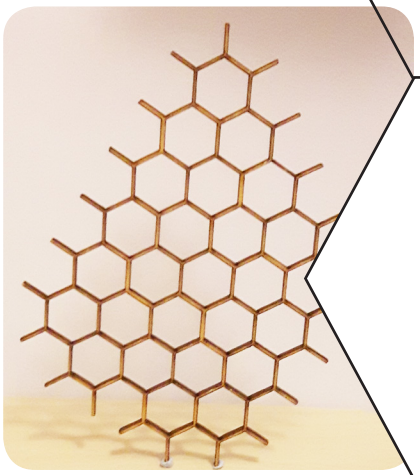


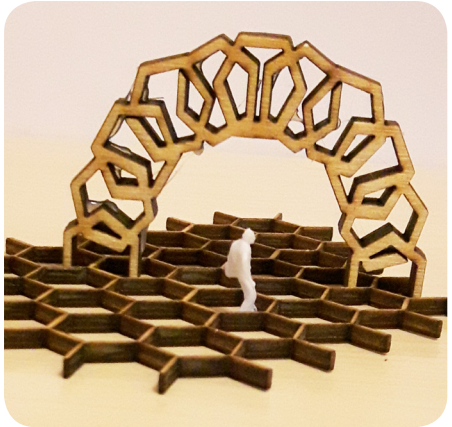





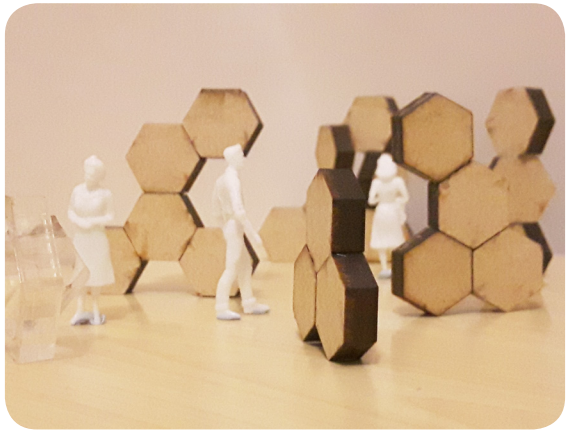




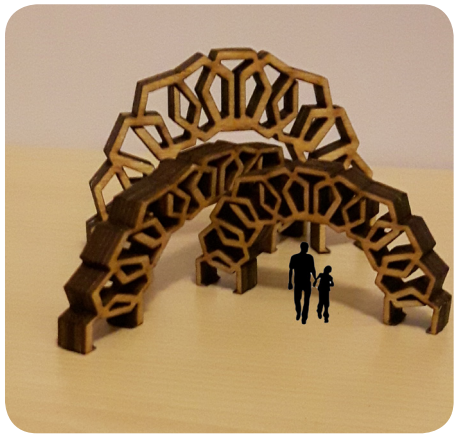
I used the laser cutter to cut of different sized hexagons. A well as hexagon shaped objects. Using these objects I was able to make little maquette. to help my deign thinking.

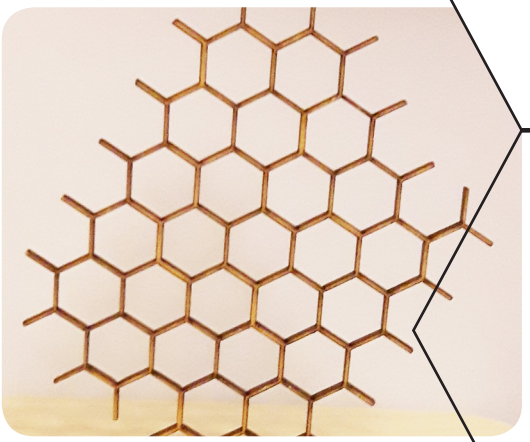




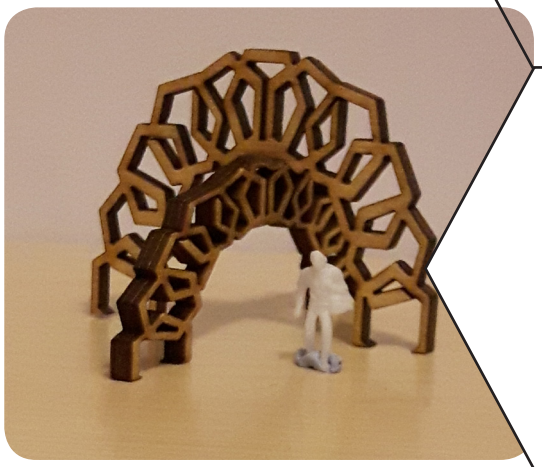


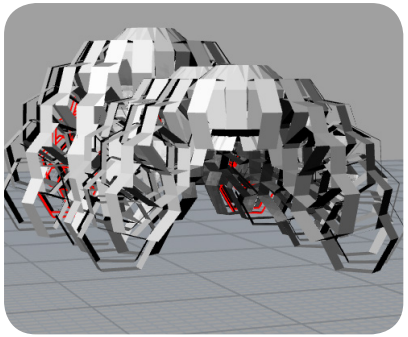
Scale:
A set of numbers, amounts, etc., used to measure or compare the level of s omething.

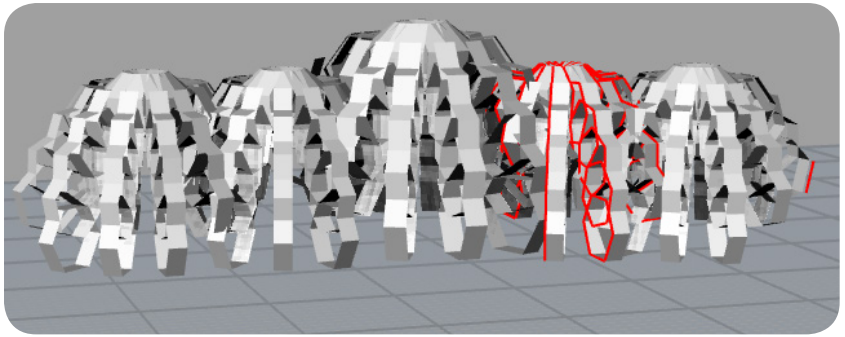


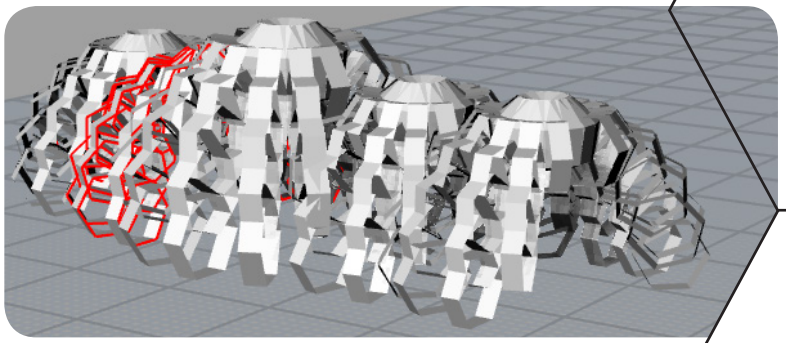


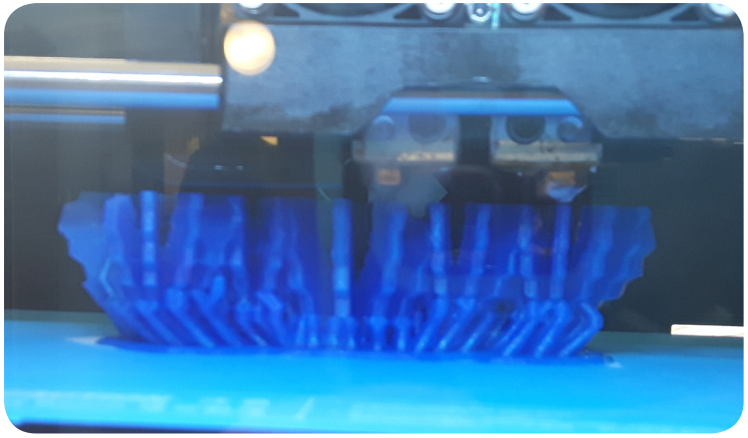
The scale of any object can easily change the purpose of and object. As it could easily be a huge art installation, but with out changing a thing but scale it can become a completely different object. I have photoshopped a few people on to my project to illustrate this.

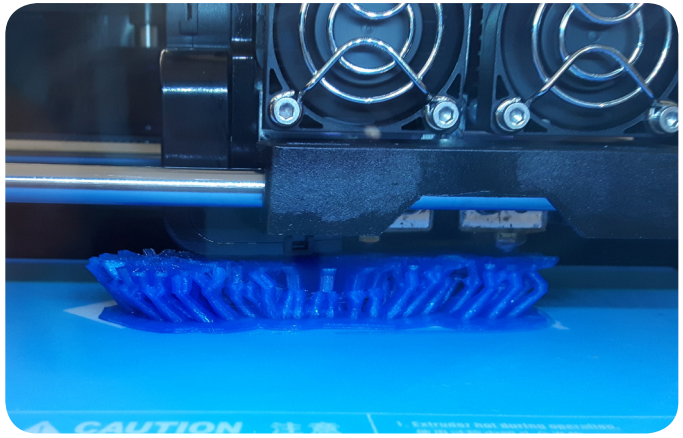


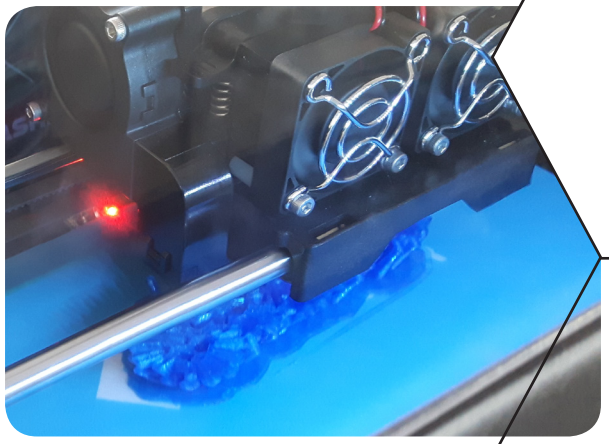




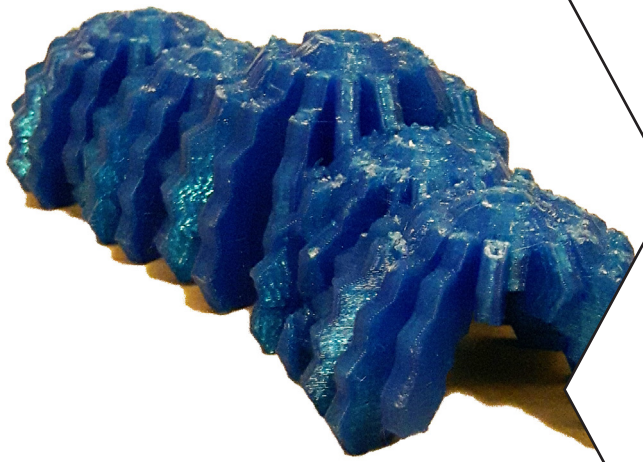


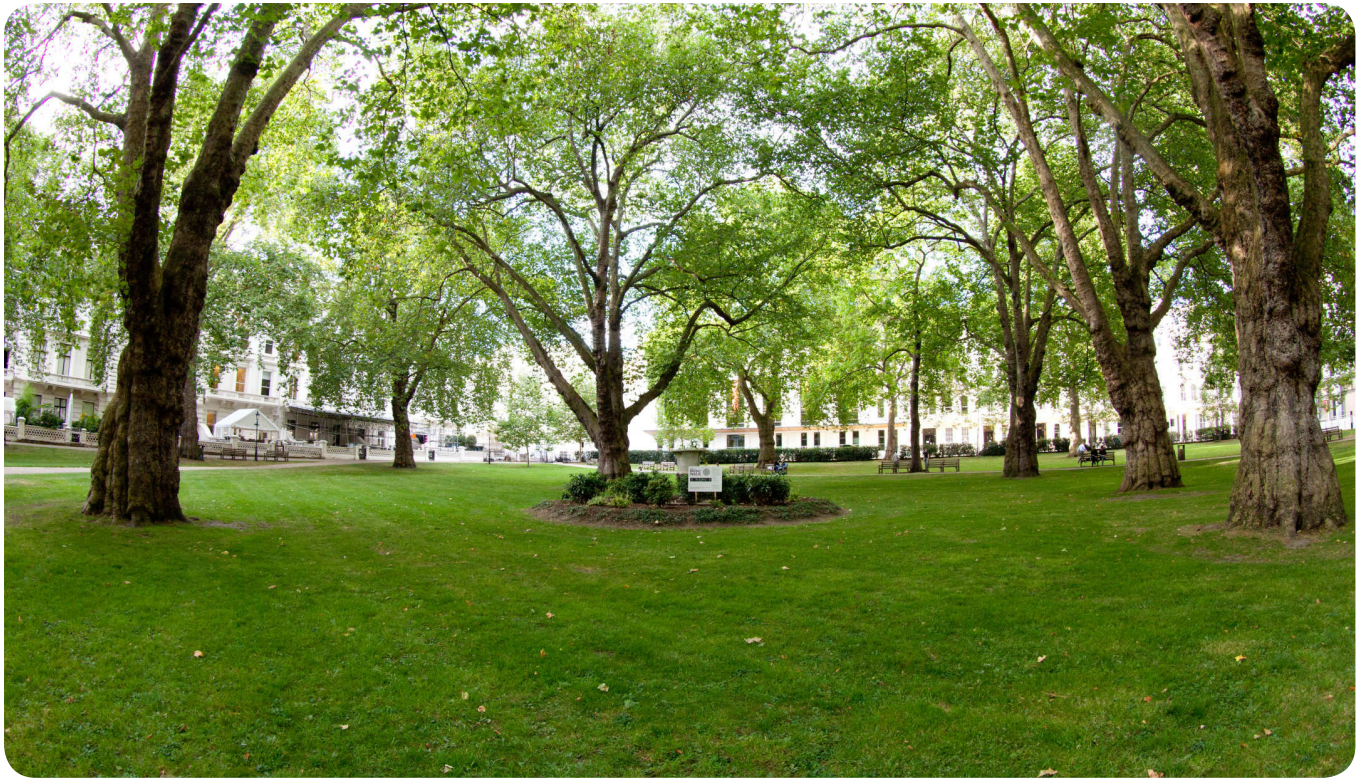




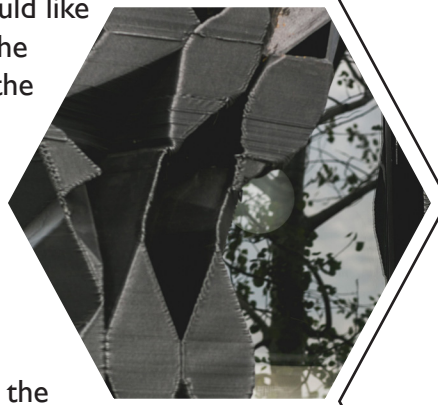


I wanted to use hexagons to create a walk through type installation and as it based a round 3D printing I thought it would be good to illustrate what the walk way would look like 3D printed. Unfortunately, I haven't fully got to grips with Rhino when it comes to getting something to scale.

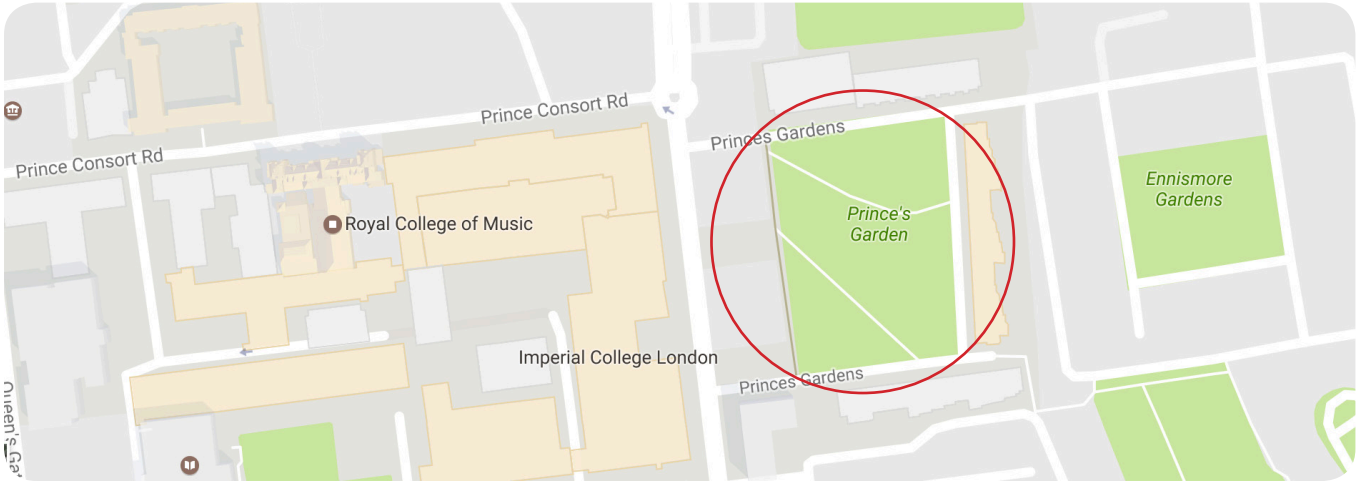


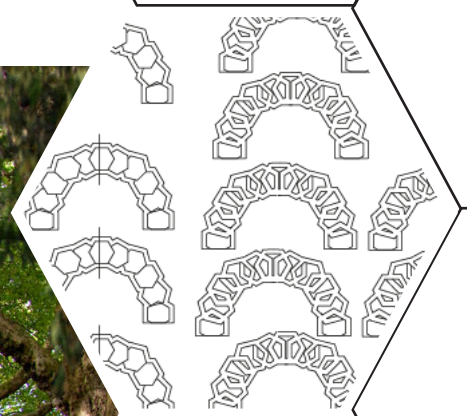


The material I would like to use would be the same plastic that the company in Amsterdam is using because of how eco- friendly it is. This material used by DUS Architects is a bio-plastic. When the installation is over they can destroy it and reuse the material again.



The location of the walk way will be in the Princes Garden which is just round the corner from the science museum. As I think visitors to the museum would be the most interested in the installation.





3D printer theme installation in the local gardens (Princes garden), near the science museum in London. "A walk way though a 3D printed object."