

## APPENDIX 1 – Annotated Portfolio

**Narratives of the form:** Resembling a pebble you would pick up at the beach. The smaller pebble symbolising home, which you will always be attached to

**Functionality:** A smart, detachable brooch that keeps a sense of home with you. GPS tracks your gestures to locate your home's direction. Pedras inner light glows when you face your direction of home, giving an immersive illumination.

**Digital Interaction:** A detachable pebble you hold, when aimed toward your native home it projects a patterned glow of light onto your body. Site-specific, intriguing, and sensorial.

**Innovation:** The form encourages the wearer to take it and hold it in their hand, while observing it and contemplating.

**Location:** As a 3 part brooch it is made to be worn on the chest, with the detachable part to be held in the hand.

**Location:** A hand-held piece

**Functionality:** To emotionally connect with loved ones indirectly. Piece of digital jewellery that connects a mother with her three daughters. Each daughter is represented by their star constellation. The light constellations light up independently when the wearer tilts the piece in their hand in three different positions, one for each child.

**Innovation:** Is made of electroformed fimo and electronics (micro:bit, fairy lights and a battery). The light constellations light up independently when the wearer tilts the piece in their hand in three different positions, one for each child.

**Narratives of the form:** Organic and fluid in the form, resembling a piece of nature, but also a shape that is comfortable to hold in the hand.

**Digital Interaction:** time-specific- it lights up when the mother picks it up and wants to use it, site-specific- tilting it in three different directions, one for each daughters, surprising- because you dont expect it to light up, sensorial - it caters to an emotional connection for the carrier

**Connected Brooches** are a pair of connected digital brooches for two wearers. When the top layer of one brooch is spun, the other brooch lights up; initially low, the light increases in intensity as the spinning intensifies.

**Location:** Brooches

**Digital Interaction:** Imaginative as the wearer imagines through the interaction with the paired brooch a loved one. Time-specific, intriguing, sensorial

**Innovation:** Manual spinning of the form influences the digital interaction and changes the light output.

**Narratives of the form:** Final form of the brooches is made out of brass and fabric. The fabric holds personal significance for the wearers. Previous explorations of form and light with metal and fabric; metal, papier-mache and human hair.

From top to bottom: Pedra, Time Capsule, Connected Brooches

**Functionality:** A soft vibration from the ring reminds you when it's time to pause. A press on the button activates a 4-7-8 mini meditation. An effective tool for reducing stress, anxiety, and sleep disturbances. Inhale for 4 sec, hold for 7, and exhale for 8, this practice helps regulate the nervous system and lower stress levels.



**Innovation:** With no screens, notifications or tracking, the ring offers a seamless, non-invasive way to encourage mindfulness.



**Location:** A ring - jewellery on the hand is easy to look at for the wearer



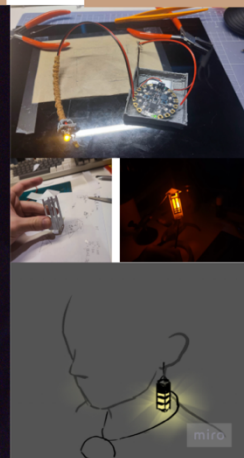
**Narratives of the form:** The ring has a soft form, sensual and elegant, making you want to touch it. With a hole, slightly off the center, drawing your eyes in. The design itself is calming and relaxing, catering to the needs of the wearer.

**Digital Interaction:** While meditating you observe the rotation of the center piece, encouraging you to breathe in a certain pattern, making you relaxed. It is timespecific- the motion of the ring makes you interact and observe it for longer periods of time. It is surprising, you don't expect a part in a ring to move by itself.

**Functionality:** The piece acts as a conversation tool for oneself and their emotional states. The digital necklace senses changes in temperature. The LED lights inside the earrings will respond to different lighting effects according to the temperature changes. When the temperature is below 15degrees, the lights inside the earrings will flicker like a candle blown by the wind. The wearer can hold the necklace to increase the temperature, and the light will be stable when the temperature is above 25degrees and stay on for a 15 seconds before it fades out.

**Location:** A necklace and an earring

**Digital Interaction:** It is timespecific and surprising as the wearer doesn't control when the interaction starts but then can control the light intensity.



**Innovation:** The piece invites the wearer into a contemplative and reflective space that connects them with themselves in the moment of the interaction.

**Narratives of the form:** The piece works best in a dark, cold environment. The light on the earrings symbolises goodness and hope; when the light flickers, it means something good or hope is threatened and people might get nervous about it and might try to protect it. So I wanted to use this object to intensify the complicated feelings about the good things that are about to pass away. The earring is inspired by the structure of Japanese lanterns. The circuit board is encased in a container hidden at the back of the neck, and the metal wires are wrapped with rope weaving to reduce the visual interference of unnatural and artificial objects, reflecting the concept of Wabi-sabi: the harmony of nature.

From top to bottom: Interlude, WabiSabi

## Situated practices in digital jewellery research

**Functionality:** Amulet for Anxiety is a digital bracelet that vibrates when touched. The piece helps the wearer find comfort during an anxiety attack.

**Innovation:** The subtle physical interaction with pulling the strings that also amplify the digital interaction. Materials combined in interesting ways with thought and consideration for comfort and functionality.

**Location:** The piece can be worn as a bangle

**Narratives of the Form:** The piece is made of copper, leather, and electronics (vibration motors, touch sensors, battery). A personal affirmation text is engraved on the outside. The circuitry is encased within two sheets of copper; holes in the inside of the metal sheet secure the vibrator motors, covered in leather. The vibration of the amulet is activated by pressing two touchpads and could be fastened more tightly by pulling the strings.

**Digital Interaction:** sensorial as the wearer feels the vibration and the extra tension from the manual pulling of the strings.

**Functionality:** The piece vibrates when it becomes too noisy which can allow the wearer to remove themselves from particularly stressful situations. Each wearer would have to set their own loudness threshold so it would work for them and what they personally find stressful.

**Innovation:** The consideration of a digital and non-digital part and the encase of the electronics. The textured embroidery was designed intentionally as a way of relaxation.

**Digital Interaction:** secretive because of the invisible part that is hidden inside the wearer's pocket and sensorial as the wearer feels the vibration and the textured case.

**Narratives of the form:** Anxiety and nature are closely linked as nature is her escape from a stressful and chaotic world. She created the embroidery part in autumnal colours of a leaf as it pairs well with the twig that was found during an autumn walk in Derbyshire where I feel the most at ease and happy. The sand casting technique was effective as it picked up all the tiny details on the twig itself which is exactly what she wanted.

**Location:** The piece consists of two brooches. One brooch is made out of silver in the shape of a twig and is the piece to be seen and worn. The textile piece is a pocket holding the electronics, aimed to be placed in a jacket pocket.

**Location:** Acupuncturepoint LI4 where bones meet, between the thumb and the index finger. Known for its therapeutic effects in relieving headaches and migraines. A surprising placement for a piece of jewellery, based on ancient acupressure theories.

**Innovation:** Self-care should never come at the expense of style and sophistication

**Functionality:** The piece fits tightly between the thumb and the index finger, and with the power of vibration, it provides a deep stimulation of this essential acupressure point and ease stress and anxiety.

**Digital Interaction:** Imaginative: because of the unique placement for a piece of jewellery, and surprising because it is a very modern and sleek design with a function with roots in ancient acupressure philosophies.

**Narratives of the form:** Alleviate creation is a piece of elegance, carefully designed to complement the shapes of the female hand

From top to bottom: Amulet for Anxiety, Nature, Alleviate

**Narratives of the form:** With its soft and feminine forms, embracing the stone, it is inspired by the mother embracing her baby. Looking after it, even though she isn't next to it.



**Location:** A classic "diamond" ring, 8 karat white- or yellow gold with a 0.7ct TW,SI diamond, sits on the hand so it is in sight to remind you of your role as mom, and to make you relax when the baby is calm.

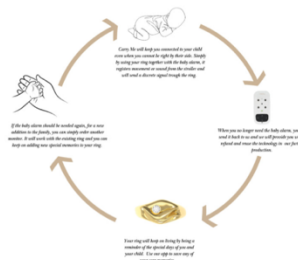
**Innovation:** Carry me is a digital ring that connects a mother to her baby as a replacement to a traditional baby alarm. The piece is designed with Danish mums in mind who often leave the babies to sleep outside for longer periods of time.

**WHY CARRY ME?**

Our vision is to make it more appealing for busy new mothers to spend more time with their baby in public environments. Our Carry Me ring helps fashionable moms who want to keep a close connection to their child, by exchanging the traditional baby monitor for a discrete and delicate alternative within a piece of jewelry. Giving them a feeling of being presentable and radiate confidence is essential to stay on top of yourself and your own needs.



**KEEP YOUR MEMORIES..**



**Functionality:** 1. Based on the intensity of the inputs and the movements of the baby, the frequency of the outputs will rise, and result in stronger vibrations and faster blinking lights as a warning for the mother to take action. 2. The wearer (mother) can save certain dates through the Carry Me application as memories. Each year the gemstone will light up on these specific dates. 3. When the wearer no longer needs the ring to function as a baby alarm they can return the electronics back to the company and keep the ring.



**Interaction:** Time-specific, used at its full function when your baby is young. Intriguing, because the purpose of the ring shifts, when you don't need it for the baby anymore. Then it becomes a poetic reminder of your children and loved ones.

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**Innovation**

The group discovered a need for fall detection alarms amongst women over 80 and went to a nursing home to interview residents. They found that when people first have gotten to the nursing homes, they don't care so much about their appearance, and the big, ugly, worn fall detection alarm on their arm, but they still wore their old jewellery together with it. What they did find out is that the elderly wished they had been able to stay longer in their own home. So the group designed a collection of fall detection jewellery you can wear without stigmatising, if you, your friends or family worry about you falling, and being able to get help quickly.

**Location**

The placement on the wrist or around the neck is because of accessibility, and inspired by placement of classic jewellery as this is where most of the elderly wore their jewellery.

**Functionality**

It will light up red if you are in need of help. If you accidentally activate it, it is easy to turn off. There is an app attached to the alarm for the caretakers. They will get an alert if the alarm is activated, and can get in contact with the fallen person and/or call for help.



**Narratives of the form**

The design is inspired by nature and a floral leaf, as the elderly expressed a love of nature, and feeding into the esthetics of the jewellery the elderly already had. In this way their design fulfils the elderly's wish for wearing matching jewellery.

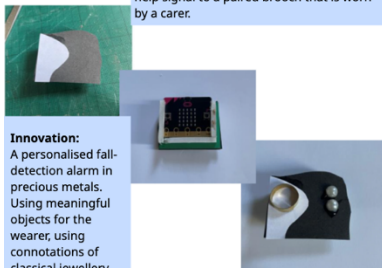
**Interaction**

time specific- for a certain time in your life where you or your loved ones feel a need for protecting you and taking care of you without stigmatising you. Unique in the way that there is a piece without technology that adds to the adornment factor, making it appear more like a classic jewellery collection instead of wearable.



**Functionality:**

The brooch will detect a fall, and send a help signal to a paired brooch that is worn by a carer.



**Innovation:** A personalised fall-detection alarm in precious metals. Using meaningful objects for the wearer, using connotations of classical jewellery.

**Narratives of the form**

The student put emphasis on personalisation of the brooch using the wedding ring of the wearer's husband and stones that she liked, allowing the wearer to co-design the piece. Oxidised Silver, silver chain, Found objects, gemstones, electronics (microbit, LiPo battery)

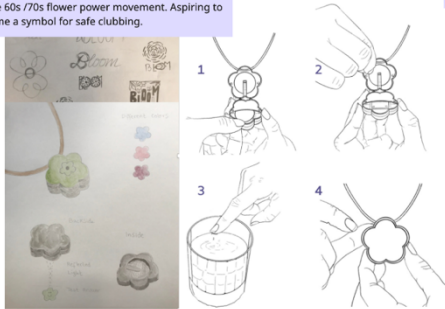


**Digital interaction:** time-specific - for a certain period in a person's life, surprising and sensorial- it can be personalised with the wearers meaningful objects, like here the wedding ring of her spouse, unique, giving it a special meaning for the wearer- a fall detection alarm is usually made in plastic and not very personal.

**Location:** on the chest, a common place for a fall detection alarm as it needs to sit a sturdy place.

From top to bottom: Carry Me, Floris, Falling Devices

**Narratives of the form:** The flower shape is inspired by the 60s /70s flower power movement. Aspiring to become a symbol for safe clubbing.



**Location:** A necklace worn as a clubbing companion, visible to others.

**Innovation:** Drugging in the club environment is a growing problem, making you feel insecure while you are supposed to have fun. Imaginative because it promotes the aim of the flower to become a recognisable symbol when women go clubbing. Women can share the test papers with others and become a movement.

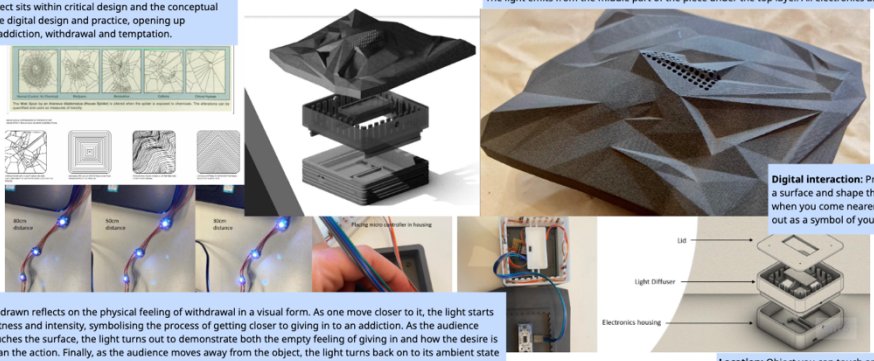
**Functionality:** detects if drinks have been drugged. When the wearer wants to test their drinks they can open the necklace (middle left) and take out a SipChip from the storage section (1). Then place it in the container on the other side (2). When in place, the wearer can apply a drop from their drink on the PH paper using their finger and then close the pendant. After a few seconds the pendant will light up and show the results of the test.

**Digital Interaction:** Time-specific - for women and men in club settings. To promote safety. It's responding to the real challenges of today by empowering women, pushing for a future where (in which) the crimes of drugging don't happen.

**BLOOMTECH**  
YOUR CLUBBING PARTNER

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**Innovation:** The object sits within critical design and the conceptual artistic themes inside digital design and practice, opening up discussions around addiction, withdrawal and temptation.



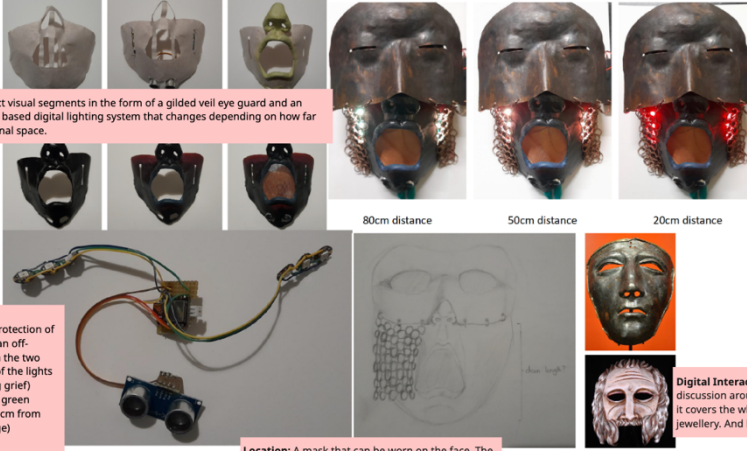
**Narratives of the form:** The form of the piece draws inspiration from an experiment NASA run on spiders to see what effects drugs had on the web construction. The result was a distorted web that looked like "broken glass". The light emits from the middle part of the piece under the top layer. All electronics are encased within the box.

**Digital Interaction:** Provocative, focuses on addiction and temptation, a surface and shape that makes you curious. Intriguing -Lights up when you come nearer and becomes brighter, if you touch it it goes out as a symbol of you giving in to your addiction.

**Functionality:** Withdrawn reflects on the physical feeling of withdrawal in a visual form. As one move closer to it, the light starts to increase in brightness and intensity, symbolising the process of getting closer to giving in to an addiction. As the audience reaches out and touches the surface, the light turns out to demonstrate both the empty feeling of giving in and how the desire is far more intense than the action. Finally, as the audience moves away from the object, the light turns back on to its ambient state to lure them back in, representing the never-ending cycle of addiction. This is symbolic of the never ending process of withdrawal and addiction.

**Location:** Object you can touch and interact with, not placed on the body.

**Narratives of the Form:** The piece comprises two distinct visual segments in the form of a gilded veil eye guard and an expressive wailing visage, beneath which lies a proximity based digital lighting system that changes depending on how far an outsider ventures into the wearer of the mask's personal space.



**Innovation:** The colour of the lights in the mask attempts to correspond with an emotion that is heavily associated with one another ranging from a softer but darker blue, to a muted green of terror and disgust, or a red of genuine rage and raw anger brought about by the invasion of one's privacy.

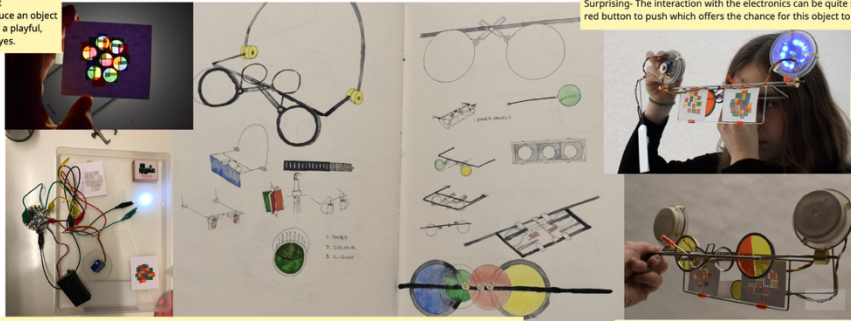
**Functionality:** The piece acts as a protection of an individual's space in the form of an off-putting mask. The distance between the two people is identifiable by the colour of the lights in the mask with a blue (symbolising grief) activating at 80cm from the mask, a green (symbolising terror) activating at 50 cm from the mask and a red (symbolising rage) activating at 20cm from the mask.

**Digital Interaction:** Provocative as it opens the discussion around personal space, and because it covers the whole face, an unusual place for a jewellery. And has the connotations of armour.

**Location:** A mask that can be worn on the face. The piece is an exhibition piece and it is not meant to be worn by a specific person.

From top to bottom: Bloomtech, Withdrawn, Mask

**Functionality:** The Light Exchange is a curio that incorporates materiality with electronics to produce an object that responds with movement and light. To offer a playful, alternating combination of perspectives to the eyes.



**Digital interaction:** Intriguing- When the object is held to the eyes and tilted down (away from any natural light source), the servo arm will activating to bring the light panel (on) in front of the lenses. When the object is tilted up, the light panel (off) will retract to rest.  
**Surprising-** The interaction with the electronics can be quite secretive as there's no lever to move or a big red button to push which offers the chance for this object to have different audiences. It is also playful.

**Location:** Worn as a pair of spectacles with extensions.

**Narratives of the form:** The fluorescence of the acrylic and the exposed wiring lend themselves to a cyberpunk aesthetic (a consequence of the colour and material choices) but also the concept of layered lenses and hidden views are most commonly found in sci-fi. This visual language reflects the student's interest in written and visual science fiction and advanced technology. The electronics are a natural development to enhance these investigations as it introduces new materials, movements and allows for explorations of colour (such as light). Acrylic and paper are used to create optical effects that alter the light reaching the eyes. The acrylic is seated in moving disks which can be lifted in and out of view to change the colour of the light that reaches the eyes. The paper is held within a frame in-front of the moving disks and is designed to be used like slides on a projector. The paper slides can be changed easily and each one has a different cut-out pattern. This combination of cutout and colour limits and changes the light that reaches the eyes to show a new way of viewing.

**Innovation:** A playful and original object that responds with movement and light. It encourages you to play and explore with light and colour.

## Light Exchange