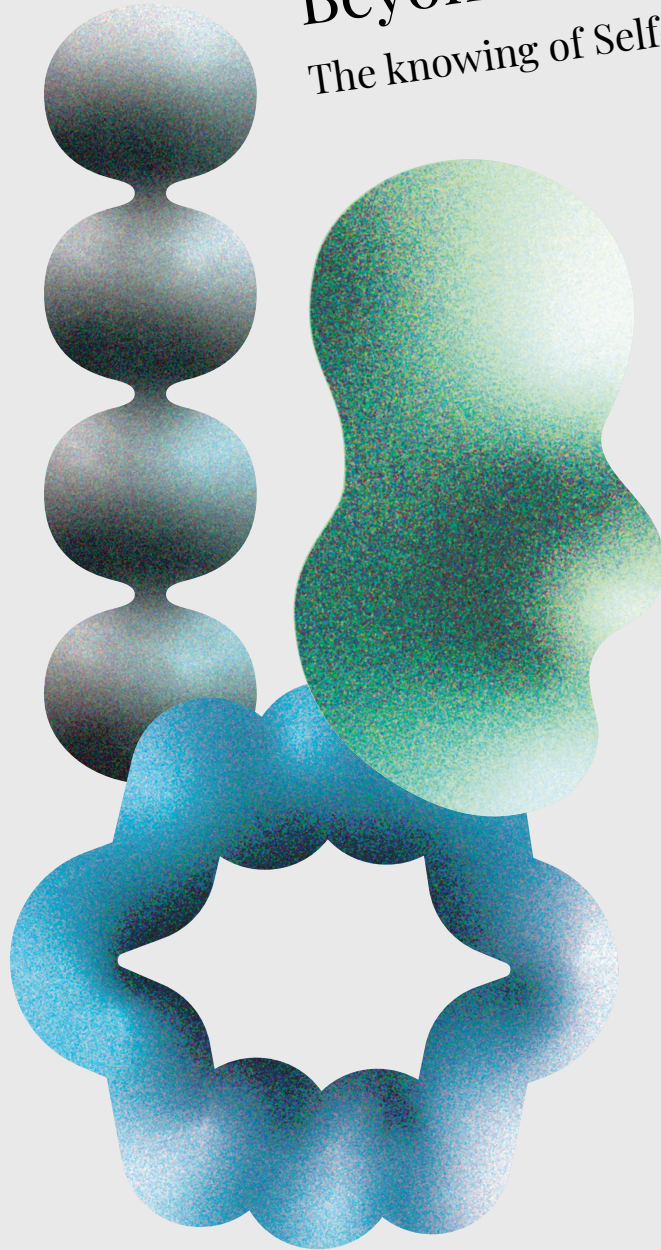


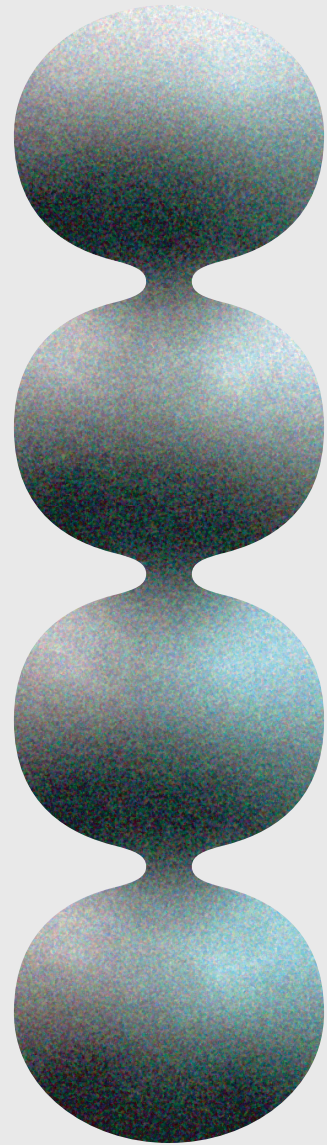
# Beyond conscious:

The knowing of Self-owned Anxiety

RISD Industrial Design MFA 2021



WenYuDu



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# Research Anxiety

*Your body's natural response to stress. It's a feeling of fear or apprehension about what's to come. The first day of school, going to a job interview, or giving a speech may cause most people to feel fearful and nervous.<sup>1</sup>*

Everyone has the same experiences of anxiety, depending on what you call it, some people take it as stress, some people feel afraid, and some experience physical pain. Anxiety exists in everyone's life based on different sensitivities of the individuals. Anxiety causes not only the torture of the mental state but also the physical body painfulness, if the experiences of an individual go extreme and last for longer than 6 months, then those daily anxiety become anxiety disorder, which people will need to use medication or take action to cope with to control the symptoms. We experience anxiety more than we imagine, and it could be dangerous and hard to control, but what is anxiety precisely?

Anxiety happens when people encounter events that make them feel certain levels of insecurity, those events could be small as seeing the color they dislike or as a larger scale of problems like family issues or personal future plans. The trigger of anxiety could be various and differ from personal experiences. Those experiences that trigger our brain activities. The reaction of anxiety is the way that our brain tries to alert us where the risk would be, so we can be prepared. Based on the research article, anxiety sets the body up for "fight or flight." This autonomic threat response is sensitive, fast and decisive, and, in times of extreme danger, operates outside our awareness by preparing the body to take action. Think of this threat response as the "gas pedal" of the nervous system.

Less severe anxiety operates similarly, but with less overall physiological arousal. New research suggests the stress response may have more to do with directing our attention and prioritizing resources than with generating fear. This can be helpful in all ranges of the anxiety response, especially when striving to capitalize on its benefits.<sup>2</sup>

Quoted from medical research, one of the changes observed in the brains of patients with anxiety disorders is increased neuronal activity in the amygdala, a brain region that plays a key role in processing emotions such as anxiety or fear. Overactivation of the amygdala is thought to be involved in causing exaggerated anxiety.<sup>3</sup>

Anxiety is our body's response to fearfulness, nervousness and stress from the future, the upcoming things that might happen, it's the fear of uncertainty. The natural body reaction of anxiety includes heart rates going up, breathing rapidly, restlessness, trouble concentrating, and also hard to fall asleep.

Imagine us like the balloon, the air is our worries and stress, the action of pumping air inside of the balloon is the anxiety experience. We keep pumping air inside our bodies, and when we can afford the pressure, we will need to release tension. The ways we release our tension are multiple and different, we will do some activities that help us distract from the horrible reality, we will search for the comfortness, we will also develop different behaviors subconsciously.

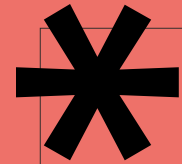


*In terms, our bodies know and react before we notice. Thus, it is important to recognize how anxiety influences your behaviors, and how your body react to anxiety. And determine if those reactions are harmful. To recognize is the first step, yet the first step is always the hardest one.*

1. Kimberly Holland, 2020, <https://www.healthline.com/health/anxiety>

2. Clark, Alicia H. "How To Overcome Anxiety Brain Fog." Alicia H. Clark PsyD, 9 Sept. 2020, [aliciaclarkpsyd.com/anxiety-brain-fog/](http://aliciaclarkpsyd.com/anxiety-brain-fog/).

3. "Synaptic Protein Regulates Anxiety Behaviour." Max-Planck-Gesellschaft, 27 Dec. 2018, [www.mpg.de/12620765/anxiety-protein-amygdala](http://www.mpg.de/12620765/anxiety-protein-amygdala).



# The complexity of anxiety symptoms

Anxiety is not always about our body reactions and the struggle, intense feelings. Anxiety can work more complicatedly and one symptom can influence others or even trigger another symptom. The anxiety could take over control of our mind and people suffering from it feel helpless, uncontrollable with their thinking, behaviors. Some symptoms are harmful, addictive yet are hard to be aware of.

## [ Anxiety Brain Fog ]

Anxiety is a complex brain-body system that sometimes the symptoms can meld with other symptoms to create a composite experience. It's anxiety brain fog. It's the symptom that goes opposite of the tension feelings caused from anxiety such as restlessness, nervousness, rapidly breathing and over thinking. Anxiety brain fog makes people feel tired, they can't stay in focus. The brain can't work clearly or sharply. It's like the fog covering your brain and slowing it, dragging it back from the clearness of mind. In this situation. The thinking and the processing will be slower than usual, people will feel "functionless".

From the psychology article. Brain fog with anxiety may happen because the symptoms of one cause the symptoms of the other, creating an escalating, reinforcing feedback loop. While there can be serious medical conditions that underlie brain fog, the effects of **stress and sleep loss**<sup>1</sup> can bring it on as well. Without an outlet for its energy, wrestling with anxiety can be mentally exhausting and brain fog can **accompany this cognitive fatigue**<sup>2</sup>. Even the perception of mental fatigue can bring on symptoms of brain fog, making a struggle with anxiety and stress even more difficult.

When anxiety is already present, the ruminating, worry and racing thoughts literally exhaust the mind. Brain fog can take over with all its deficiencies in alertness and processing skills. The unfamiliarity is frightening, and a heightened level of anxiety ensues. And then more brain fog. It can feel like a vicious cycle.<sup>3</sup>

## [ Guilt & shame circle ]

The anxiety can trigger the sense of guilt and shame. Research published on **PLOS ONE**<sup>5</sup> and conducted at the Karolinska Institute just indicated that there's a complex relationship between anxiety order and guilt, shame. People suffer from this considering they make things worse and things that happen wrongly are because of them. They tend to carry the responsibility that does not belong to them. They often take the anxiety attack as the signal that they've done something wrong. At this point, the anxiety takes control of them and they fall into the vicious circle of self-blaming and afraid that other people will blame them as well. People might be stuck inside this circle and never get a proper rest with over-thinking. The feeling of stress and pressure could never leave them.

The rational guilt is linked to the specific facts that justify the resulting suffering and guilty conscience. These will come as a result of causing real suffering to other people or being responsible for actions that had serious consequences. On the other hand, irrational guilt caused by anxiety makes people take the unnecessary responsibility on their shoulders and later could develop into other types of psychological disorders. Guilt and shame are two different types of feelings. But somehow the sense of shame could be more dangerous, people could deny themselves for being a person. Also, when you underestimate or undermine yourself and, at the same time, blame yourself for practical things, the feeling of shame happens.

## [ BFRBs ]

### *Body-Focused Repetitive Behaviors*

"BFRBs are related to self-grooming, anxiety management, or sensory stimulation. The most common BFRBs are trichotillomania (hair pulling), dermatillomania (skin picking), onychophagia (nail biting), dermatophagia (skin biting), rhinotillexomania (nose picking), as well as cheek biting and joint cracking."<sup>4</sup>

Those small actions cause painful sensations that might stimulate our body, drag us a bit from anxious reality and create a small amount of pleasure. Those behaviors might also be the result of trying to punish us due to the guiltiness of anxiety. Those actions could happen subconsciously, so sometimes it's hard to recognize until injured. Even if people know they have these behaviors, it's hard to quit them as well, it's addictive and works as temporary relief. In the worst cases, people could harm themselves badly. Not all the BFRBs are related to anxiety, but anxiety could cause BFRBs. Although many people with BFRBs want to stop these behaviors, they are compelled to perform them. Many sufferers are not aware of them.

1. <https://www.healthline.com/health/brain-fog#diagnosis> 2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617392/>

3. Clark, Alicia H. "How To Overcome Anxiety Brain Fog." Alicia H. Clark PsyD, 9 Sept. 2020, [aliciaclarkpsyd.com/anxiety-brain-fog/](http://aliciaclarkpsyd.com/anxiety-brain-fog/).

4. Olivardia, Roberto. "Hair Pulling! Skin Picking! Nail Biting! Oh, My!" *ADDitude*, 22 Mar. 2021, [www.additudemag.com/body-focused-repetitive-behaviors-adhd-anxiety](http://www.additudemag.com/body-focused-repetitive-behaviors-adhd-anxiety). 5. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3631156/>

# \*The various type of anxiety disorder

## *[ Generalized Anxiety Disorder ]*

Generalized anxiety disorder (GAD) is a type of anxiety disorder that causes someone to feel constantly worried. People might feel a sense of anxiety underneath the surface while doing many tasks. Anxiety disorders like this are very persistent, and wind up feeling very anxious about everyday activities. People feel worried about things, even when there isn't anything to be worried about. It can be frustrating and confusing, and that's why getting help with anxiety disorders is so important.

*Sources from BetterHelp* <sup>1</sup>

## *[ Social Anxiety Disorder ]*

Social anxiety disorder is another problematic type of anxiety that many people suffer from. When someone has a social anxiety disorder, they will have problems interacting with other people. Some people have extreme social anxiety, and they will not be able to leave the house without feeling an extreme sense of panic. Others only have social anxiety problems in very specific situations. There are varying degrees of social anxiety, but most people feel very self-conscious about specific things when they suffer from it. Anxiety disorders like this can be brought under control with time and treatment.

*Sources from BetterHelp* <sup>1</sup>

## *[ Panic Disorder ]*

People who have panic disorder will experience panic episodes that can be very extreme at times. These panic episodes could manifest themselves with physical symptoms such as chest pains, heart palpitations, shortness of breath, and even dizziness. Some people also experience abdominal pain when they have a panic attack. This is the disorder that is associated with panic attacks, and some people feel as if they're going to die when they're in the middle of a severe panic episode.

*Sources from BetterHelp* <sup>1</sup>

## *[ Obsessive-Compulsive Disorder ]*

Obsessive-compulsive disorder (OCD) is a type of anxiety disorder, as well. This is a type of anxiety disorder that is characterized by a person having unwanted, repeated thoughts or actions. Someone who has OCD might compulsively wash their hands, or they could feel compelled to touch every object in a room before they are allowed to leave it. Having OCD can be challenging in many ways, and it makes it tough for some people to live without complications.

*Sources from BetterHelp* <sup>1</sup>

## *[ Attention Deficit Hyperactivity Disorder ]*

Attention deficit hyperactivity disorder (ADHD) is not caused by anxiety, it's not the anxiety disorder, but they have overlapping symptoms and are hard for people to tell if they have anxiety disorder, ADHD or both. "Adults that have ADHD attention deficit hyperactivity disorder (ADHD or ADD) lead anxious lives. The nature of ADHD often makes day-to-day life stressful, creating situations and environments fraught with uncertainty - anxiety's primary fuel." quoted from online mental health magazine- ADDitude Magazine. "That is why ADHD cannot be discussed without bringing up anxiety, whether that means pesky, troublesome bouts of worry that present only in specific contexts (like meeting work deadlines or making difficult back-to-school decisions), or full-fledged anxiety disorder. Either way, the link between the two is direct, so much so that anxiety is the most common comorbid diagnosis with adult ADHD."

## *[ Post-Traumatic Stress Disorder ]*

Post-traumatic stress disorder (PTSD) is one of the most extreme anxiety disorders. PTSD often occurs in people who have gone through particularly traumatic events such as serving in a war. This is why so many soldiers have PTSD. Victims of various traumatic experiences can develop PTSD because of what they have been through in their lives. The traumatic events that an individual experienced can come rushing back to the forefront of their mind. This can cause extreme panic, and PTSD issues need to be monitored closely. Coping with anxiety disorders such as PTSD can be very difficult, but treatments are available.

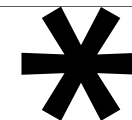
*Sources from BetterHelp* <sup>1</sup>

# Anxiety in different context

Thesis 2021

## *[ Children v.s Adults ]*

In my experience, when I was a child, the experience of anxiety was different from being an adult. Although the feeling might be the same, how people treated me when I experienced anxiety was different. I believe the moments that we try to categorize from age to gender, from when it's meant to be taken care to when it is to be mature and independent, people experience different treatment of anxiety. But how we can be soothed might be the same, we just do not use the same method. Growing up supposed to be more mature and take responsibility for themselves, thus there's no room for adults to hide away, and it causes the negative closed loop, especially for male. Since being stronger and independent seems the opposite concept from revealing anxiety.



## *[ Interviewed with Wei Ho Lun- Philosophical Counselor of TPCA (Taiwan Philosophical Counseling Association) ]*

Philosophy consultants provide services for people who are suffering from anxiety, stress and have specific problems. They will guide their clients through rational, logical deduction and slowly figure out what the core problems would be and work with them to solve the problems. Instead of being confused or being emotionally trapped inside the problems, philosophy counselors will try to open the discussions with clients about what they've been through.

Instead of soothing the emotional pain, philosophy therapists work more like problem solved consulting, and redirect them from "don't know what to do" to "find a way to solve it"

Their theory of philosophy consoles people suffering from uncertainty actually due to their real problems, and if people have multiple problems at the same time, people might not be able to handle and later gather into a massive emotion. That's why staying awake and fully understanding where the position their clients are, is very important.

They don't toggle between emotions that are created by problems, but to peel down the skin of those facts and reality of their clients. Try to help them to find proper solutions.

If the clients can't explain the problems and seem to struggle more on their emotions, philosophy counselors will recommend them to find a psychologist or therapist.

However, the emotions that trigger from the environment, surrounding randomly are possible, which means, the anxiety is not always related to events. Thus, for people who are not or who can't figure out what kinds of problems they have might be frustrated about the console.

*[ Interviewed with PeiChi Wu, Paraeducator, Bagby Elementary school ,California ]*

The special kids in general, are as normal as other kids. They are just more sensitive, when they feel or encounter the things that make them "uncomfortable", their emotion will melt down and crush. Special kids especially have a harder time expressing themselves during the emotional crush period than other kids. Because those kids are more sensitive to sensation, the tools that provide or apply to them for sensational purposes are often seen in treating special kids' emotional crush period.

When their emotions melt down, the teacher will need to recognize what kind of tools are useful for them based on the differences of the sensitivities. This chart categorizes 3 different kinds of nerve sensitivities. What factors can trigger those kids' emotions?

"It really can be anything, sometimes it is really hard to understand, but we need to face the fact that how things stimulate us really differs from person to person, and sometimes there's no reason or the reason is very personal so it's hard to be understood." said from PeiChi. "One of the cases that happened to me is there's a kid didn't like the color of my shirt, so he cried out loud. Until we used the tools and he finally felt better, he told me that he likes me, wanted to reach out to me, but he didn't like the yellow color of my shirt, so he was so struggle, there's the hesitation and he didn't know how to do and what to say about it. And the emotion suddenly became so strong. So his emotions melt down."

In this interview, I learnt a lot from how people suffer from their weird struggles from their childhood. Those teachers that take care of special kids need to use the specific tools to sooth them in time. Those tools are time limited, if the kids use the tools often, then the stimulation decreases, until it is no longer useful for soothing. Those simulations that work for special kids are "provided by others (the teachers)" and will "diminish by the increase of frequency of use".

Those stimulation tools that apply to the special kids will no longer be effective when the kids grow up. And by the time those kids go to 12 grade, those tools that stimulate the skin and body are changed to the tools that stimulate more in visual and sound. Now we don't know why those stimulation methods change, but the stimulation that works for people is changing. There's no one solution for all.

Hair brush for brushing their back or scalp for 1-2 minutes



Works for *Subcutaneous Nerves Sensitivity*



A plate of kinetic Sand for kids to play for 20 minutes



Works for *Peripheral Nerves Sensitivity*

Outdoor activity of trampoline for 20 minutes



Works for *Motor Nerves Sensitivity*

## *[ Western v.s Eastern ]*

In Asia, under the cultural background, until the very serious end, people go to therapists. If people regularly see a therapist or psychiatrist, it means abnormal(it is sad, but let's face the truth). This includes the social impact for an individual, that we need to be as normal as others. If people's behaviors are different, society might take those people as "rule-breakers" and there should not be exceptions. It's getting better now, but still, It's not often to see or hear people go to therapists, yet they started to understand that those people who go to therapists, psychiatrists might not relate to the concept of abnormality. Still people tended to hide themselves away from looking for help and avoid talking to each other about their true feelings. In Taiwan, it's rare to see people sit together and toggle with the same problems as experience share. People lack the education of the importance of mental health, when people can't function "as normal as others", it means that this person is powerless, and can't take the responsibility for themselves. Especially in working environments, workers will be asked to finish the task before everything including themselves. Thus, there's no excuse for being "weak". Mental health issues always stay at a personal level, and society asks people to put the goal of society, nation, industry or the family before personal need. This ironically turns a mental health issue to a social level. Which means one as an individual somehow will feel abandoned, unaccepted by society if they have mental illness. The method of meditation is well-spread in Asia, and that's linked to religious practice, which people who don't want to be limited by the rules of religion will avoid to practice the meditation. Overall, the lack of mental health education and promotion, the atmosphere of how society values the people's behaviors and the moral standard that people need to put public before individuals make it harder to deal with anxiety.

And in Western society, although it's common and supportive for people to go to therapists, yet, people that suffer from anxiety in their adulthood, especially workers, rarely have time to regularly go to a therapist. Quoted from one interviewer (He/ Him, age 30, South Africa )"The hardest part is actually getting up and searching for help, everytime it took me so long to go to my therapist. I am really good at hiding away, and I am very comfortable hiding away, yet, that's wrong and harmful. You can't escape from yourself. I need to accept the fact that I need help, and it's time that I need to speak with my therapist." For him, "mentally preparing" to go to the therapist actually is the hardest part. I wondered if there's any improvement in the system that works for those people, to help them to be prepared and ready. For another interviewer (She/Her, age 27, American), she mentioned that "The method that toggles anxiety in America over-emphasizing the power of technology and research", so many strategies are invented, yet it lacks caring and rarely feels warm in the whole process. By introducing drugs that work for certain symptoms, people will feel like they are ill and need help which later, they blame themselves for the process of being cured. It is hard for individuals to accept that they need constant help and support. And it seems like the never-ending process that drains out the energy of those people. She mentioned the experience of going to the meditation place that seems like a buddist place. "There's a man's picture hanging on the wall," she told me. "I like the space and the peaceful feelings around the space", there's an unsimilar divine atmosphere there for her, she is from Christian background. "I like the space, and I will definitely visit there again. I think the problem of being a Christian is to accept that all of those things I've been through are all because we were born with sin, and those things are like punishment for me. To make me think of where I did wrong. This somehow weakens me."



# Design Probes \*

*What elements are universal? And what are individual?  
Is there any pattern? What's the difference in gender,  
culture?*

In order to understand more about how individuals can be influenced by anxiety, I designed a series of design probes questions, and asked interviewees to draw and take the picture without thinking too much of those questions. I equally apply those questions to both male and female to compare the outcome. And expect them don't think too much about the questions but focusing on their past experiences and the first impression toward the questions, what's the first thing that comes to their mind toward those questions. Although anxiety is a complex experience for individuals. The first impression toward the questions might reveal what's the most influential and initial things to the interviewees. This includes 9 questions.

*1. Draw an object that you had in your childhood, you interact with it when you feel anxious. And write down why this object is important to you and how you interact with it.*

*2. Draw a shape that comforts you the most.*

*3. When you were small and you felt emotional, draw a picture to describe how other people sooth you.(contain as much details as possible) ,Write down the most memorable words for you.*

*4. Draw a scene that comforts you the most.*

*5. Take a picture and describe an object that when you feel emotional, anxiety, you will interact with.*

*6. Take a picture of a self-owned object that is the most intimate with you and you feel security with it.*

*7. Draw a picture describing how your emotion and anxiety influence your body?*

*8. Draw a picture describing what you wish other people could do to your body?*

*9. Draw a picture describing what you will do when you feel emotional/ anxiety.*

He/ Him, age 28, India

1. CHILDHOOD OBJECT :- TOY VEHICLES  
 HAPPY OR SAD I USED TO BE MEMORIZED BY TOY VEHICLES CARS OR TRUCKS CA. I USED TO PLAY WITH THEM FOR HOURS TOGETHER. EXISTING THEIR INTERACTION WITH VARIOUS TERRAINS, WANDERING HOW AN ACTUAL VEHICLE WOULD BEHAVE. I WOULD ALSO IMAGINE THE SCENE FROM AN ACTION MOVIE AND TRY TO REPLICATE IT WITH THE TOYS I HAD ESPECIALLY THE AUTOMOTIVE TOYS.

2. IDK WHAT AGE YOU ARE REFERING TO. BUT WHEN I WAS SMALL LIKE 5 TO 10 I WOULD GET SAD & CRY IF I DIDN'T GET TO GO TO PLAY OR DID NOT GET THE TOY I WANTED FROM THE SHOP. THE WAY PEOPLE ACTED TO SOOTHE ME WAS DIFFERENT BASED ON THEIR MOOD, SITUATION AND OTHER FACTORS. PREDOMINANTLY, I REMEMBER THAT THEM PROMISING ME THAT THEY'LL GET ME OR ALLOW ME WHAT I WANTED IF I DID SOMETHING LIKE  
 a. STOP CRYING  
 b. DO BETTER IN CLASS  
 c. DO MY HOMEWORK  
 d. EAT FOOD PROPERLY etc.

I'D TAKE THAT AS A CHALLENGE & DO IT. IDK HOW TO DRAW THIS ANSWER?  
 ONE WORD :- REASONING, TALKING, DIVERTING, etc.

3. SHAPE THAT COMFORTS ME :-  
 A CIRCLE OR SPHERE

4.

5.   
 THIS IS A PICTURE OF MY TEMPLE IN MY HOUSE.

6.   
 WHEN I AM ANXIOUS I TURN TO MY PHONE.

7.   
 ① = DRY  
 ② = HIGH BPM  
 ③ = SWEATY  
 ④ = CAN'T BREATHE

8. I hope words might help :-  
 1. Hug helps alleviate anxiety.  
 2. Shoulder/ massage back.

9.   
 MEDITATE OR BREATHE DEEPLY.

He/ Him, age 22, Taiwan

① I take care of my fish. To makes me feel important.

② I got a head scratch

③ a huge flat plane as sensible, serene & suppressive

5.   
 @ sleeping & getting a head scratch from Jackie

6.

① ITCHY

head, neck, face, chest, elbow, wrist, in between finger, hand, pro, skin, shower, shave head

@ same as 2

He/ Him, age 34, Taiwan/ Japan

1.   
 孩子們睡覺時一場場滑溜的部份。摸起來很滑順。編織不緊就繼續摸。

On the edge of a blanket, there's an area that feels slippery. It feels smooth. If I don't feel good, I keep stroking that area.

"Let's go to drink!"

Sea shore of Enoshima 江の島

4.   
 江島海岸 江島 江島町 江島町 江島町 江島町

5.   
 5.

He/ Him, age 32, Taiwan

1.   
 心情不好或是生氣時 會把身旁的筆所打破(碎)也!

When I am not in the mood or angry, I will break the pen beside me.

Non.

3.

4.   
 4.

5.   
 5.

6.   
 6.

He/ Him, age 31, Taiwan

1.   
 小時候難過只會想打電動 不會特別探究情緒的起因或理由 紅白機、GameBoy、PS到PS2 進到遊戲中就會專注在當下 暫時忘掉心情不好這件事 等到之後想起來也就不那麼難過了

2.   
 沒關係, 我陪你  
 "It's fine, I am here for you."

3.

4.   
 4.

7.   
 7.

8.   
 不要碰我謝謝  
 "Don't touch me, Thanks!"

5.   
 5.

6.   
 6.

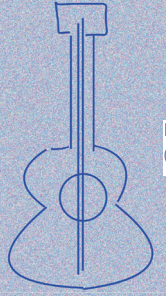
When I want to soothe the emotion, play something slow, comfortable. Jazz/ also Blues

When I need to release, play something fast, powerful. Metal, Rock, Blues

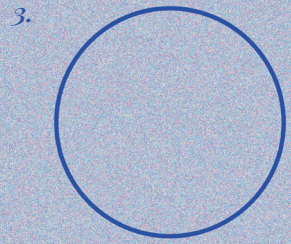
想緩和情緒時彈慢的、舒服的 Jazz/also Blues

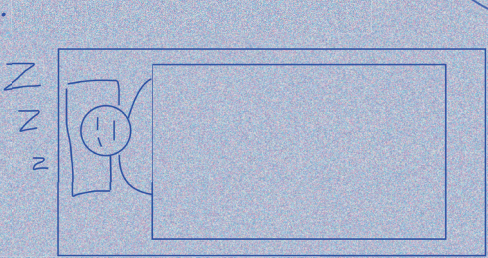
爆發一波。需要發洩時可以彈快的、爽快的 Metal/Rock/Blues

He/ Him, age 26, Taiwan

1.  練習喜歡的歌  
Practice the song I like (with guitar)

2. 不太會跟別人說自己心情不好  
Rarely tell others about my bad moods.



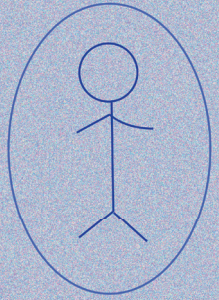
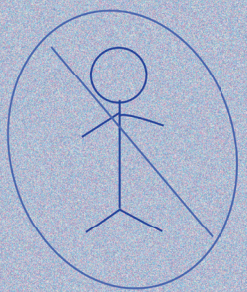
4.  跟他玩  
Play with him



6. 跟他玩  
Play with him











7. 全身疲憊  
Full body tiredness


7.  8.  不要碰我  
Don't touch me


9.  摸貓  
Stroke cat

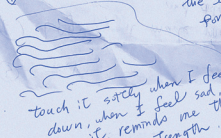
He/ Him, age 26, America


<p>1.  blanket I had as a kid. It was hand knitted w/ rainbow yarn. It was super soft + I would hug it when stressed or sad + it also drew up to lots of heat + played w/ them was also very soothing</p>	<p>2.  Parents hugging me when crying + their validating my emotions helps</p>	<p>4.  mountain view</p>	<p>5.  Play game</p>
<p>6.  My cat had a</p>	<p>7. If I feel overly stressed or overwhelmed I get panic attacks, + I can also get ulcers + stomach pain.</p>	<p>8.  - give me a hug/ affection - make tea / comfort me - cook w/ me - play game w/ me</p>	<p>9.  Hiking / Exercise  cooking</p>

She/ Her, age 42, Taiwan/ America


1.  I'd love to move all the matches boxes into a big paper box, because I wanna everything organized well.

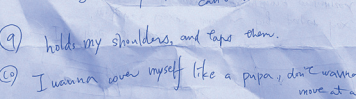
2.  talk comfortably and non-stop me

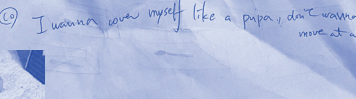
3.  touch it softly when I feel down, when I feel sad it reminds me the strength.

4.  Happiness and sadness are the same, they will not be forever, they change all the time, don't let them control you.





6.  I wanna cover myself like a paper, don't wanna move at all.


7.  hold my shoulders, and tap them.


8.  I wanna cover myself like a paper, don't wanna move at all.

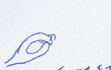
She/ Her, age 32, Taiwan


1.  錄音機  
錄音機、  
好容易能聽自己的心情、不用  
心聽、但不会再會再

2.  小壺  
你長大都會懂、  
除了人際關係  
父母、兄弟姊妹的陪伴

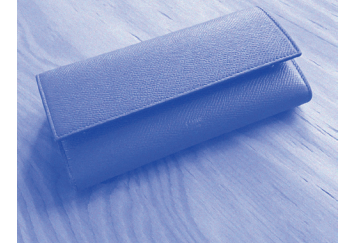
3.  不要碰我

4.  摸貓  
摸貓或  
在衣服上摸幸福


5.  My wallet.

6.  Small pot  
When I feel restless, I keep drinking water.

- Recorder.  
I will talk to it, tell it about my mood, the things that made me sad, I will never go back and listen again.
- "When you grow up, you will understand." (For worried about the relationships between parents, brother & sister)
- Boyfriend, Cat, Me  
Together is happiness.
- stomachache
- Don't touch me
- keep peeling the nails or playing fingers



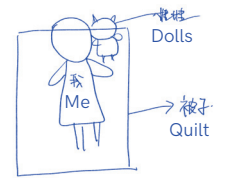
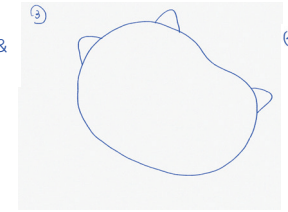
She/ Her, age 25, China

1.  Barbie  
用扎孔的布  
給芭比娃娃  
裹衣服  
的形狀。

Barbie.  
Use different kinds of fabrics to wrap the barbie up like the clothes.

2. 没有这样的情况  
因为我很少心情不好  
真的心情不好的时候  
都是生气... 然后会攻击其他小朋友

There's no this kind of circumstances, cause I rarely in bad mood. If I really do, it's more like anger. And I will attack other kids.

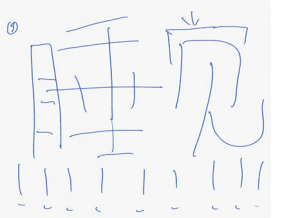


7. 注意力无法集中  
Have trouble focusing

SLEEPING!!!!!!!

8. 女朋友可以抱抱  
别人就算了

My girlfriend can hug me, but no need for others.





# Theme

the voices  
from  
interviewers



*I feel ashamed* of everything that I cannot do well and act properly, I feel ashamed that I can't tell the truth in front of people of how I felt, I am afraid of those shamefulness devouring myself, so I run away. There's a moment that I feel that I care so much so I give up.

Interviewer A, Age 27, She/Her, Taiwan



*As far as I know I don't have anxiety*, I would say I never experienced it once, if I didn't get the definition of anxiety wrongly. But I do have negative emotions that I feel harmful to myself. There's a chance that I don't know what exactly anxiety is, so it's hard for me to talk about it.

Interviewer B, Age 32, He/Him, Taiwan



I am the product that consistently talks to my therapist. *The hardest part is not to talk, it is the process of keeping practicing, revealing, getting yourself ready and starting.*

Interviewer C, Age 30, He/Him, South Africa

# The Entry

## [ recognition point ]

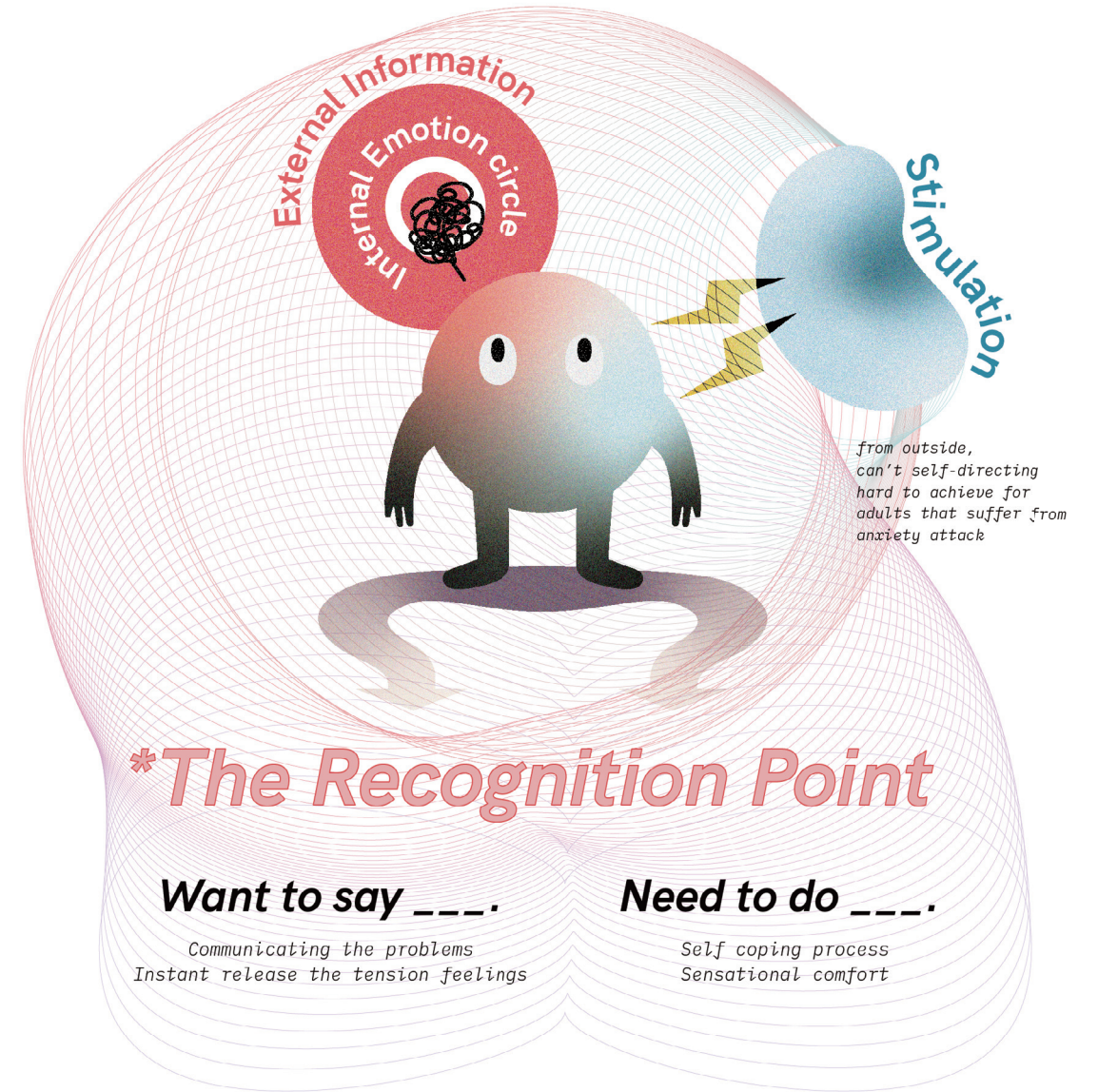
As far as we know, when an individual experiences anxiety, the body will react to the feeling of anxiety. Those feelings sometimes are so subtle, or it turns to actions subconsciously. People sometimes would not recognize that they are under anxiety attack. Not like special kids, grown-ups are not sensitive enough, and are being asked to act responsible for their roles. Therefore, sometimes, people are numb with their feelings. We've tried so hard to be rational, to be mature, so we don't have time practicing listening to inner-selves. But every single time, our body reacts, our nerves working to alarm us. These are the moments that we should pay attention to. Because our body tells us that we need to learn what could be the factors in the environment that influences us. This is the recognition point, the moment that our heart rate goes up, starts to sweat, and the body temperature rises, is the moment that we need to be recognized.

## [ Stimulations ]

The simulations work for soothing, distraction. When we were small, the touch from others. Holding us, stroking us and soothing us. Those tools that applied to us, the brushes that scrub our skin, hot bath, our mothers covered us with the blanket. Those soft touches, those words from friends and families. The sound from nature, or one amazing song, the rhythms that pour energy into us. The drum beats that guide our heart beats.

The simulations can't self-direct, this is supposed to be triggered by others or environments. Or it feels like a solution. When people feel that they are under anxiety attack, they will search for soothing, releasing. And when people try to do something for soothing, it's called searching for the solutions. Because people will know what they are going to do, except they are going to do something that they have never done before, otherwise, they can imagine how that feels. It doesn't mean this pursuit is useless, it is just not as effective as the stimulation from outside worlds. Since we tend to hide ourselves away, it always takes a long time for us to process. How to achieve stimulation while people experiencing anxiety is one of the goals that I want to achieve.

## Concept Development Vol.1



## [Recording & Long term track ]

What if the solutions that we search for soothing can be the record piece of how we experience? Based on the research, the ultimate goal for people to overcome their anxiety is to fully understand themselves, and how the environment and others can affect them. This is a very long process and requires patience from those who suffer. The coping mechanisms including writing the journal, talking to therapists or going to group therapy are the methods for individuals to understand themselves a bit more. After all, continuous recording is the path to self understanding and awareness. And it's the method that avoids us being trapped by anxiety.

# Defence Mechanism



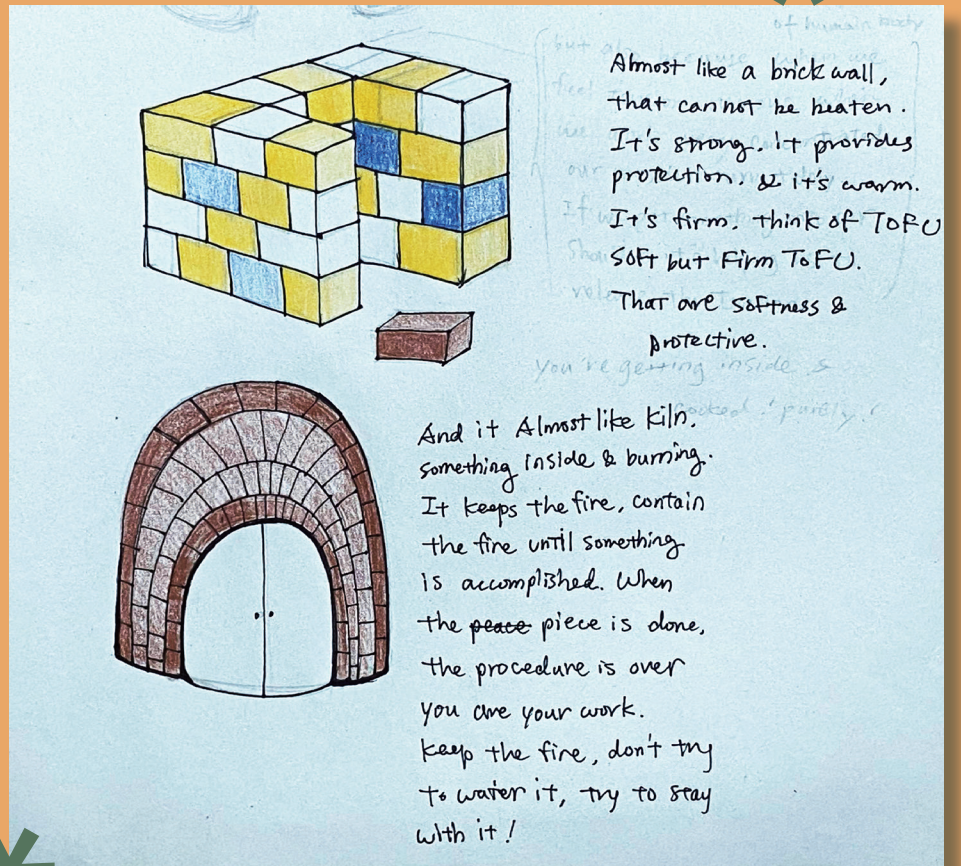
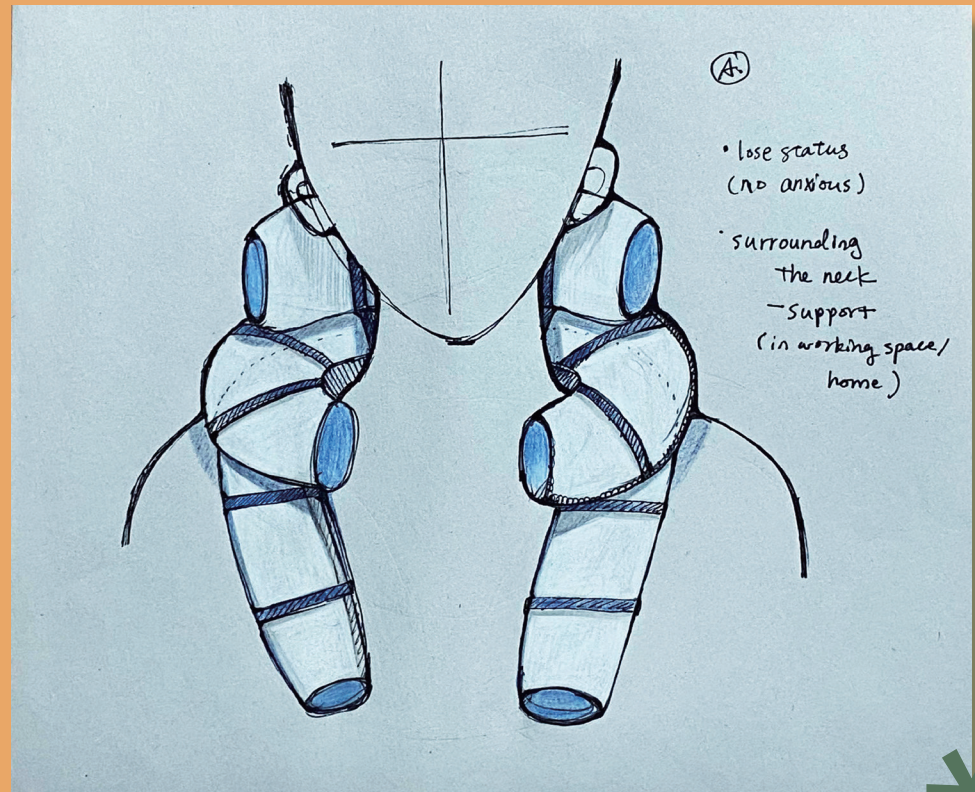
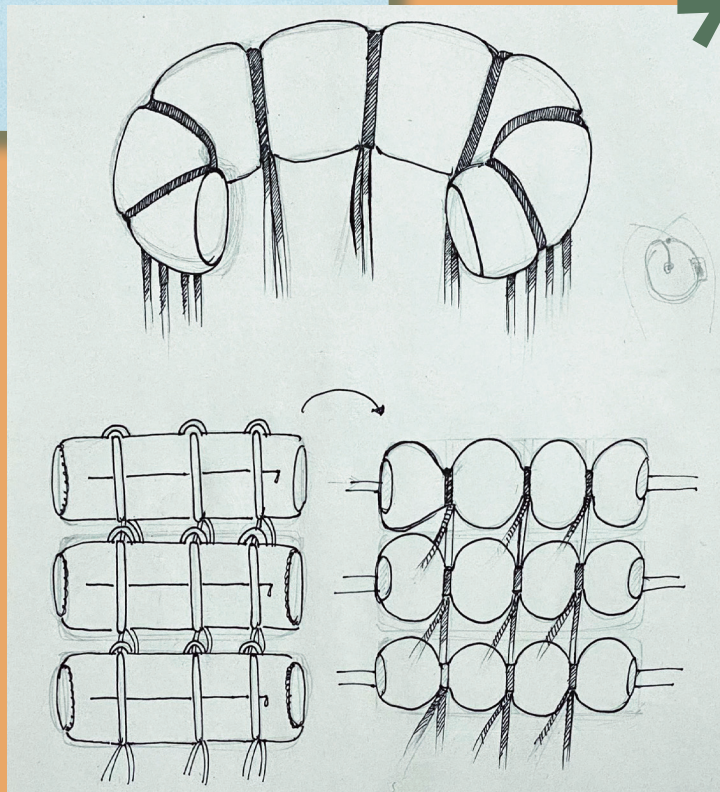
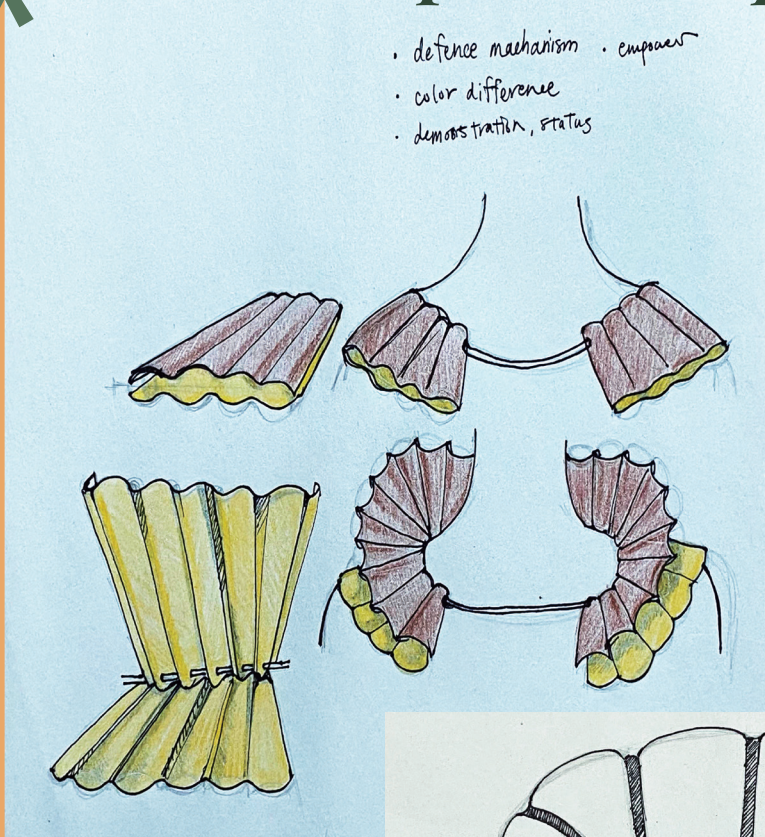
Thesis 2021

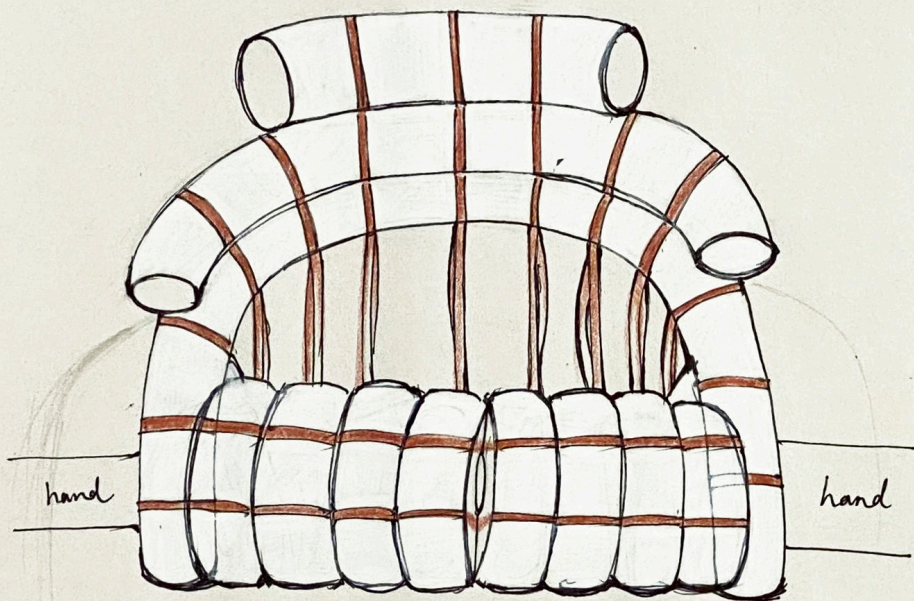
When I think of how our body reacts to anxiety, it reminds me of the defence mechanism. And we can take a deep look inside nature. How animals and creatures deal with danger, uncertainty. They wouldn't be afraid of the world looking beneath them, simply it's the reaction, and this reaction helps them to survive. They might want to scare away the enemy which we don't necessarily act or think this way. But we can think of how their body reminds them that they are under threat, it's hard to tell if they are aware before the action or if it's a spontaneous, subconscious reaction. This action might be triggered by their sensors of the body, as soon as the threat happens, just like our body reacts to anxiety. What if we have something that can be triggered by our body reacting to anxiety? A nice, wearable suit that becomes parts of our body. Demonstrate our feelings for us. Gently inform this world including me and you about the circumstances that we might have been through. By technology, we can achieve this. Using GSR sensor, heart rate sensor and temperature sensors that detect human body condition. When the signal is sent out from our body, creating the movement from parts of the suit. It could also be the stimulation, the reminders, that at this moment, a very specific moment, we need to observe ourselves a bit, to see what are the factors that might cause our intense feelings. It's the human body extension of a defence mechanism.

*Concept Development Vol.2*

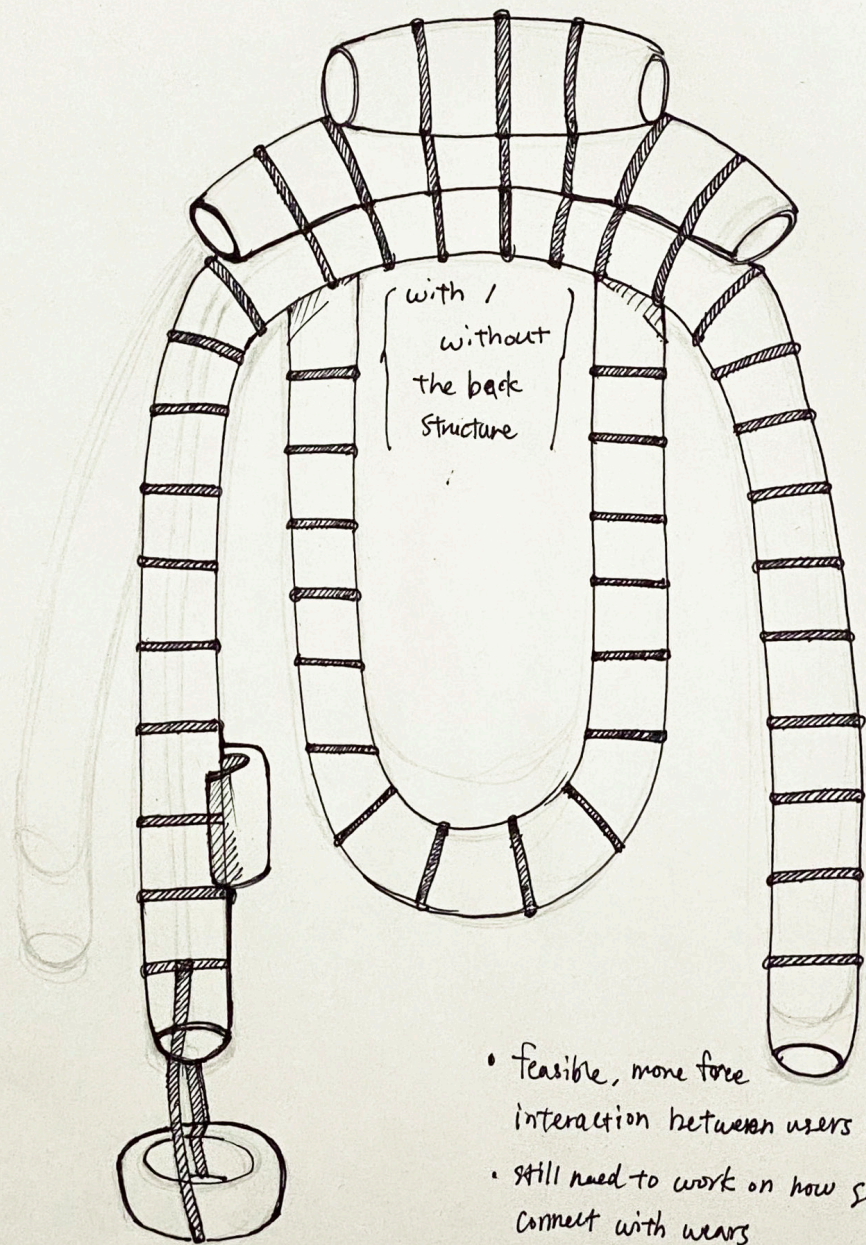


# Sketches: Concept Development Vol.3





- (hand) →
- hiding the hand inside the structure
  - keep the neck protection
  - tighten when experience anxious attack (anxiety)
  - keeping the hand warm (when people experience anxiety, the fingers will turn colder, the blood will go to chest)

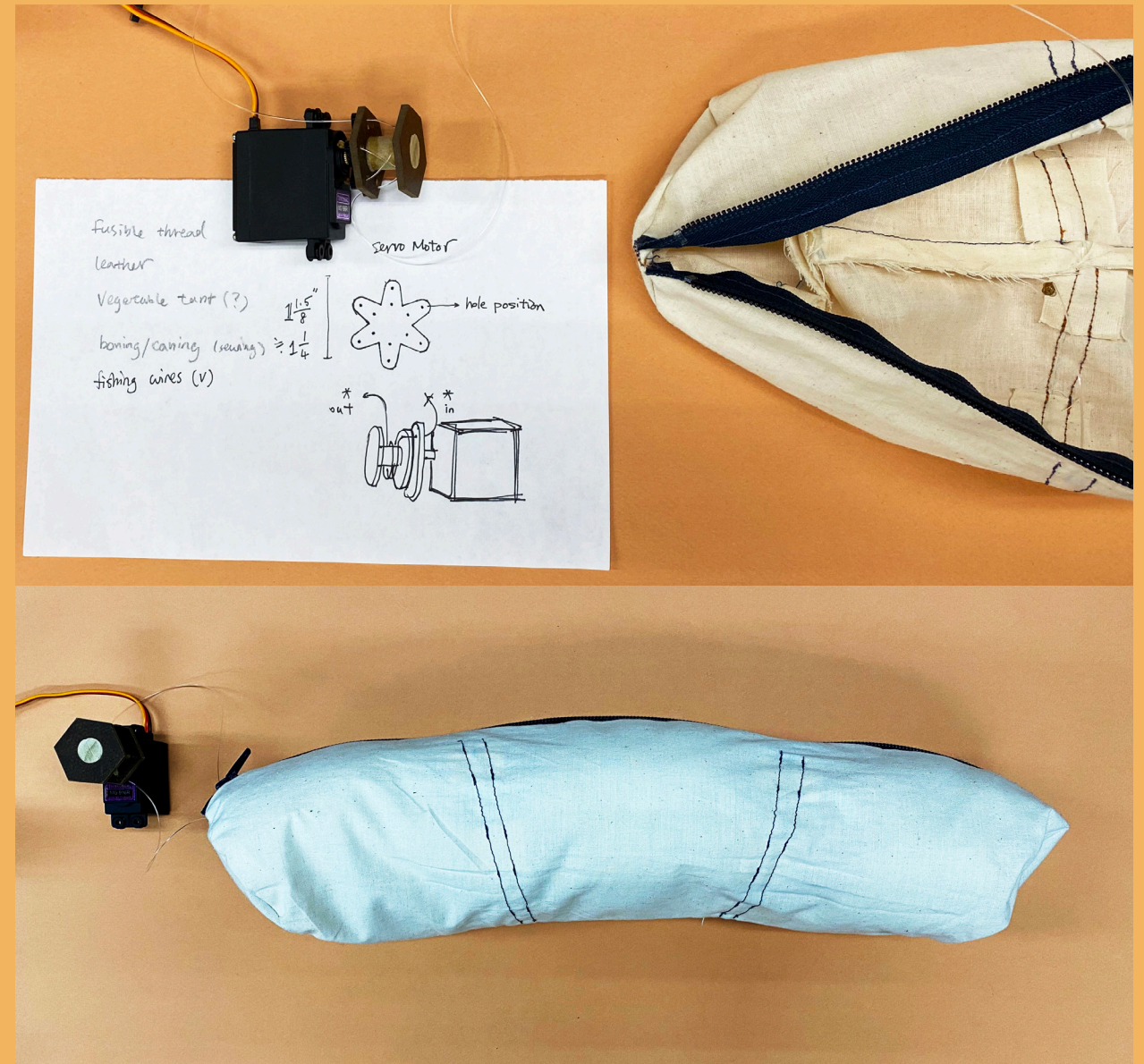


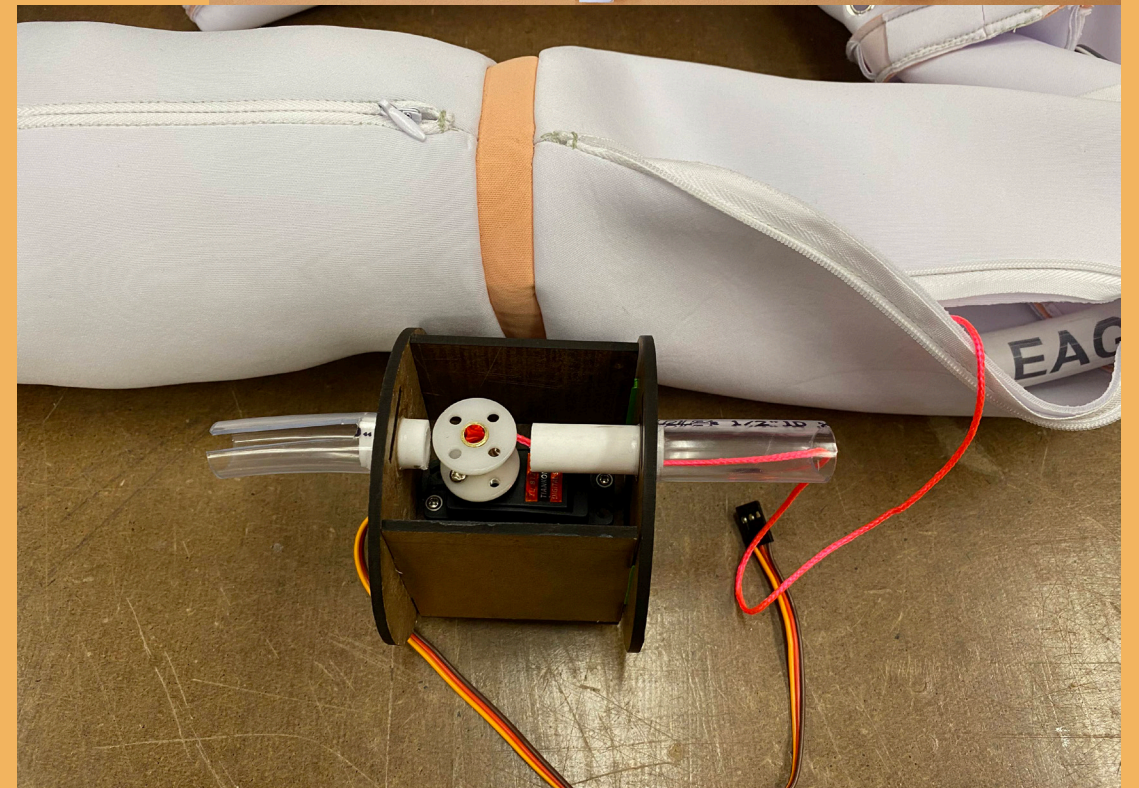
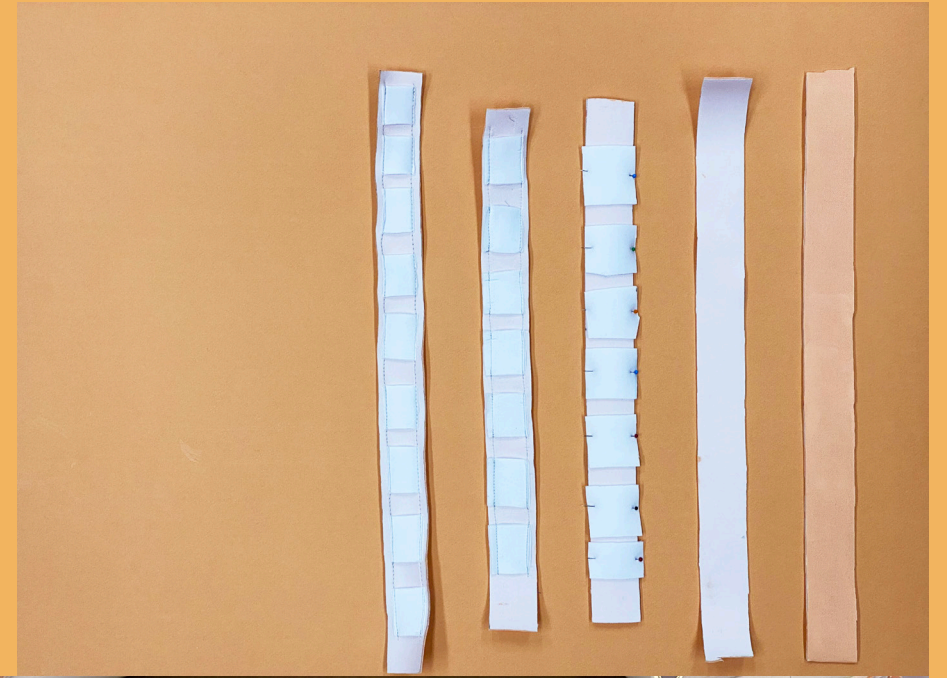
- Feasible, more force interaction between users & product
- still need to work on how sensors connect with wears



# Experimenting Prototype Vol.4

Thesis 2021





# Beyond conscious: The knowing of Self owned Anxiety



## Nudo

*To achieve recognition of when we might under anxiety attack, the first step of my thesis is to introduce the practice of expressing ourselves with wearable devices- Nudo for users to say "no", "I am not in a good condition" with no words, gently reveal your emotional status and give you the sense of support.*

*Nudo works not only like the human defense mechanism but also gathers our body signals that are triggered from anxiety as a recording piece that allows users to track what's happening during every specific moment. It also works as a reminder for those who might not recognize their own anxiety.*

*Nudo connects to several sensors including the GSR sensors and heart rate sensors, the motors that can pull the string which is being inserted into its own structure. When those sensors detect the changing of your body conditions such as heart rate goes up, cold sweat. Then those sensors will send out the signal that triggers the motors to pull the string to achieve the movement of the Nudo. Eventually, Nudo will breathe, shrink and tighten when your body experiences anxiety. And that's the moment you need to pay attention to. Because at this moment, your body tries to inform you and take action to protect you. Now Nudo will softly inform this world including you, focusing and listening to your heart. Try to clean your thoughts a bit, by following it's temple. Like breathing, a deep breath.*

*It's a soft, playable wearable cushion, it creates a small space for you to hide part of your body away, it demonstrates and expresses yourself to the world. It gently soothes and accompanies you when you need it. You are welcome to recognize the pattern of how your emotion functions with Nudo.*



Nudo

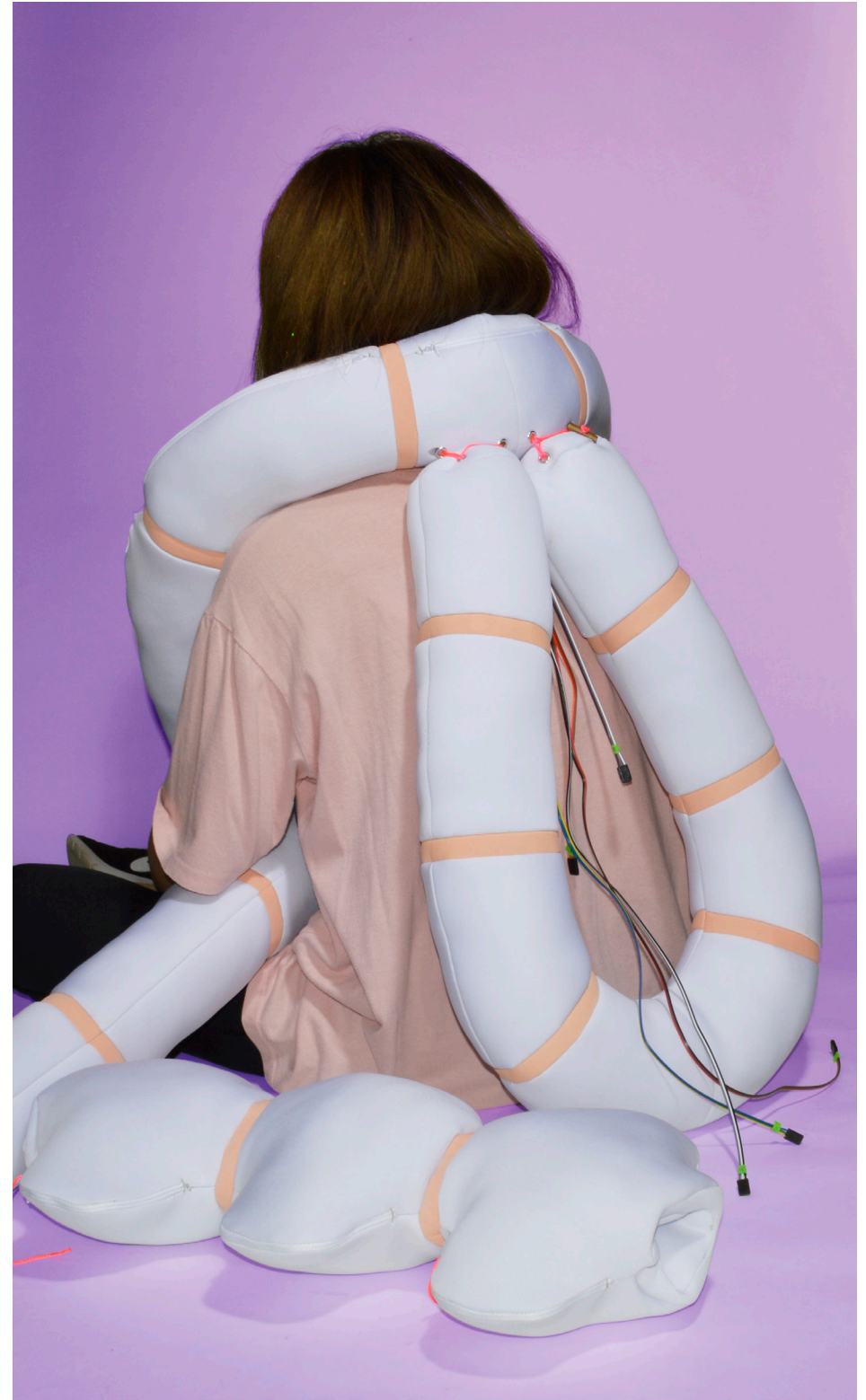


Thesis 2021

WenYuDu



36



Nudo

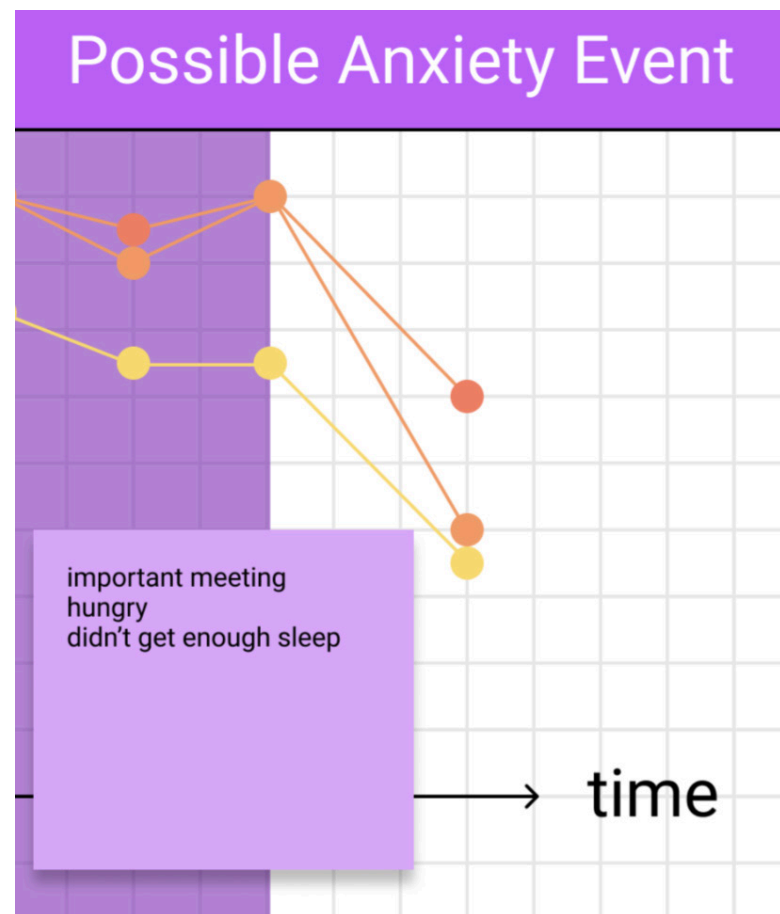


Thesis 2021

WenYuDu

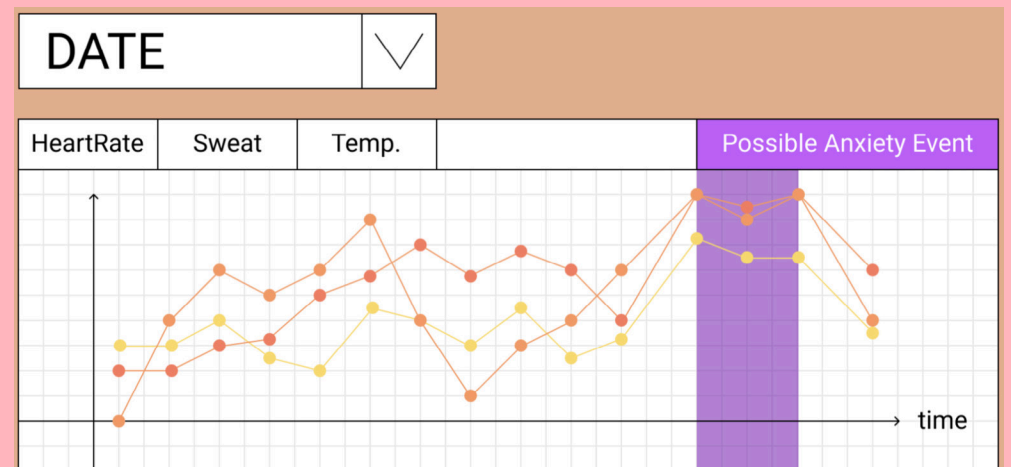
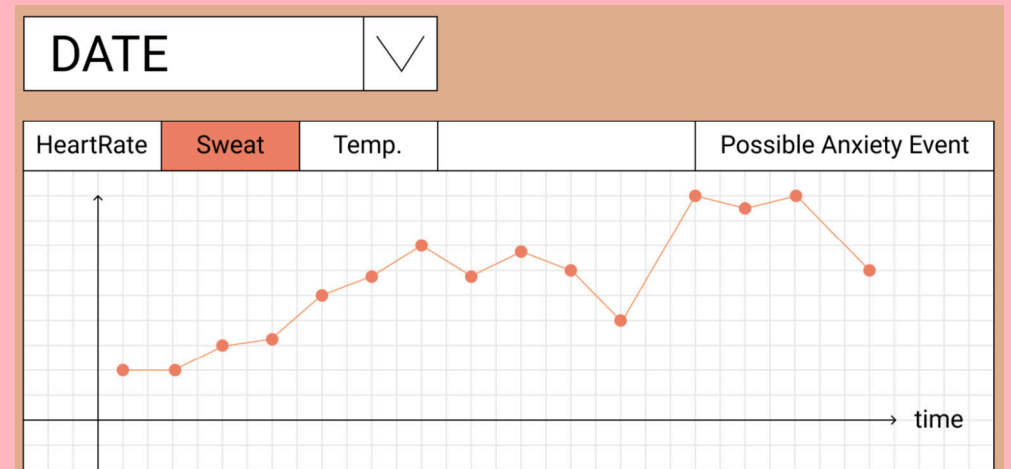
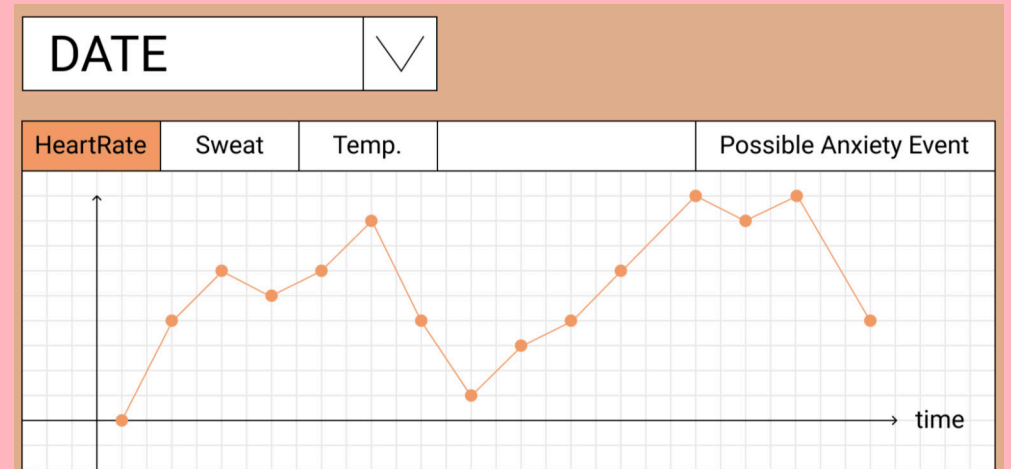


# Long term Plan : Tracking System



*Make a note of  
possible anxiety event  
on website*

*Continuously tracking your condition  
online with data collecting from the  
moment of wearing Nudo*



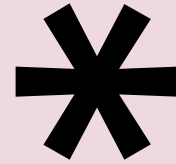
# Annotated Bibliography

1.

In this article, Ellen briefly talked about how our senses work together and separately. What those senses are important and relate to design. The successful senses design can enhance health.

The memories that are shaped by the senses, we continuously finding, experimenting and discovering the senses and extending our sensation world. Designers play an important role in designing the experience of senses. What is the touch of clicking a button, and what sound makes the experience like triggering the clicking? Our brain makes an assumption of what we should receive when we are experiencing, if we are experiencing the things we don't know, our senses remember the experience to continuously extend the sensation library without wiping off the previous experience.

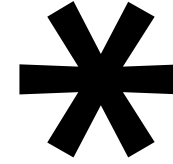
Our senses chatter with one another, thus it is hard to separate the whole experience apart. If we want to hear the sound more clearly, we should close our eyes to avoid the distraction from other senses, and that's the reason that all the theater will slowly turn the lights off before the beginning of the show.



Lupton, Ellen. "Why Sensory Design?"  
Cooper Hewitt, Smithsonian Design Museum,  
22 July 2019,  
[www.cooperhewitt.org/2018/04/03/why-sensory-design/](http://www.cooperhewitt.org/2018/04/03/why-sensory-design/).

2.

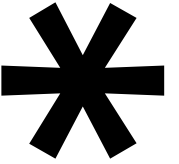
From the experiment paper, the baby monkey that has been isolated showed the behavioral disorder compared to the baby monkey that had the mother asides them. Furthermore, the baby monkey would seek companionship from the toy mother which was made in cloth rather than the toy mother was made in wire. They made this experiment that the wire mother holds foods while the cloth mother didn't, and later the cloth mother holded foods while the wire mother didn't. The baby monkey took the food from the wire mother then returned to the cloth mother. This result concluded that the materials are related to the senses of connection and relationship or the materials could contribute the feeling of comfort.



3.

In the paragraph "Feature Processing from an Active Sensing Perspective", the article recorded how we learn the object by touching it, how our body movement exam the idea of recognizing the tactile. It's not the static process but with the dynamic movement of our body. Those signals are transferred from the nerve system from our fingertips to our brain. It's a multidimensional sensory experience. Then they drew the conclusion that studies in the dynamic system might have a more comprehensive understanding of how we recognize and learn an object.

Nelinger, Guy, et al. "Tactile Object Perception."  
Scholarpedia, 2 July 2016, [www.scholarpedia.org/article/Tactile\\_object\\_perception](http://www.scholarpedia.org/article/Tactile_object_perception).

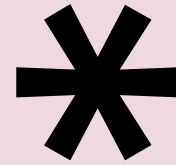


Classic Studies Revealed the Importance of Maternal Contact." Association for Psychological Science - APS, 20 June 2018, [www.psychologicalscience.org/publications/observer/obsonline/harlows-classic-studies-revealed-the-importance-of-maternal-contact.html](http://www.psychologicalscience.org/publications/observer/obsonline/harlows-classic-studies-revealed-the-importance-of-maternal-contact.html).



4.

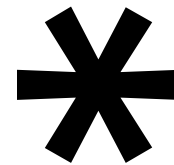
Taylor wrote the review of Daniel Miller's book "The Comfort of Things" which examines the ideas of connection in this society, we treat objects as our own symbol and create the connection between our identities and society. And we build up relationships with other people/ society through the selection of objects. Quoted from the paragraph "If we wish to look for modern relationships, then we need to look within the confines of single homes, and treat each household "as a tribe". When we do that we find not only that there is a great deal of "connectivity"; we also discover how material things function as a vehicle for all kinds of social interaction" In his book, almost like we have stronger relationships between daily objects that lie in our life are more important than the relationship between people. The object philosophically represented ourselves but also represented what we deserved in terms of we honored ourselves with objects.



Taylor, Reviewed by Laurie. "The Comfort of Things, by Daniel Miller." The Independent, Independent Digital News and Media, 23 Oct. 2011, www.independent.co.uk/arts-entertainment/books/reviews/the-comfort-of-things-by-daniel-miller-854750.html.

5.

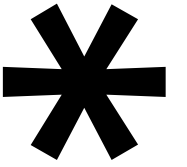
In this research paper, Kukhta and Yevgeniy made a research about how modern design brings out the users' emotions and feelings. The meaning that form and comfort users are related to the shape of the design and that related to the psychology and the symbolic meaning from our cultural background. Quoted from the article "The results of the analysis confirm the cultural and mythological semantics of forms. Ovaloid can be associated with the archetype of eggs (from Latin Ovum egg) that carry the idea of birth, female principle, womb, softness, roundness and warmth. Parallelepiped in archetypal content reflects the idea of a world order, creation, male principle, certain features of which are the rigidity, will, stability, confidence, and brightness of manifestation."



Kukhta, Maria, and Yevgeniy Pelevin. The Specifics of Creating Emotional Comfort by Means of Modern Design, Elsevier Ltd. , Jan. 2015, www.researchgate.net/publication/271141165\_The\_Specifics\_of\_Creating\_Emotional\_Comfort\_by\_Means\_of\_Modern\_Design/citations.

6.

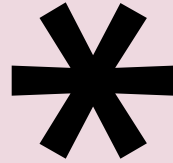
The provocative photos were taken from Bruno Munari, in those photos a man wearing a suit and leather shoes is trying to find the best position of a sofa. Naming as searching for comfort in an uncomfortable chair, this article points out a very interesting aspect that we as users hate to see the office chair when we are off work and finally go back to our place, so we buy the chair from the interior company that designed to have fancy look, home look chair that are not designed properly, and we will never find the comfort in those choices. The photos are interesting and creative, they make me think outside the box of how chairs can be sit but meanwhile, the man in the photos can't find the proper position. This fact somehow indicates the truth of how I am a designer always finding a possibility of the objects but this might cause the users' painfulness. In my point of view, design should be honest, as long as designers are always looking for the creative, we should consider if this meets the need. If we do experiment, how about putting a label that "not guarantee for people who are searching comfort"?



"Searching for Comfort in an Uncomfortable Chair." DOMUS, Domusweb, 16 Oct. 2019, www.domusweb.it/en/from-the-archive/2012/03/31/searching-for-comfort-in-an-uncomfortable-chair.html.

7.

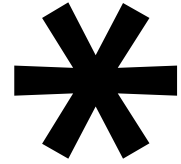
It's the interview of photographer Rebecca Scheinberg who used to be a dancer and later changed her career path, her knowledge of how elegant the human body movements are helped her to take the subtle usages of the products. The lamp designed by Kaschkasch indicates that this era is sunk into the digital world and lack of interaction with physical objects. And the lamp is designed to have an intimate sense of touch that users dim the light with caressing the smooth surface of a rounded rock-light lamp. The photos that Rebecca took show her imagination of how this lamp is a partner, the photos are linked to eroticism, private and with the details of parts of the body, those photos stretch the usage and the imagination. As we create, the products no longer belong to the designer, when it comes to the users end, how to interact with them all depends on their own thought. Is it foolish to design the interaction? Based on the research, the form of the objects can be linked to the symbols that are familiar to us. The simple, oval shape links to the birth, feminism.



Rossi, Simone. "A Human Touch." Marset, Marset, 14 July 2020, [www.marset.com/en/stories/a-human-touch/](http://www.marset.com/en/stories/a-human-touch/).

8.

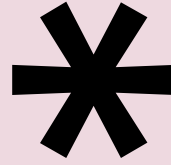
This video is mainly about the talk of the P\_wall project made by Andrew Kudless. The process is using gravity as a natural force to create the bubble-like form by filling the white plaster inside the mold that is made from elastic fabric. The scratchiness of the elastic fabric explains the process of form growth, as it's materiality nature. The organic shape and the feature of elastic are similar to our body shape, skin, how our body grows bigger, fatter and pole up our skin, when we get older, how the status of elastic turns to inelastic and leaves the mark of growth. The whole process is related to growth, this further explains the fact that, we in fact, link our imagination to our observation of nature and lives. Those details of observation turn into the patterns, symbols and storage inside our brain. In this video, Andrew also talks about the alter the shapes of concrete. It's almost like a reflection of why we don't satisfy with the current form of concrete wall, and questioning how close we are to nature? Why do we always search for the connection of us and nature?



"Form, Growth, Behavior: the Making of Andrew Kudless's 'P\_Wall.'" Youtube, San Francisco Museum of Modern Art, 28 Mar. 2011, [www.youtube.com/watch?v=ORtaTf6msos](http://www.youtube.com/watch?v=ORtaTf6msos).

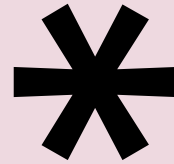
9.

In this article, Pelini raises the facts that sensory experiences can help to reduce the misbehaviors of the special children and demonstrate what kinds of the sensory experience that might help. When I was a child, I suffered from anxiety and had problems with focusing on learning, but I like to learn and go to school, and that's why my parents and the elementary school teacher always considered that I was a troublesome child. And in that time, Taiwan was still not familiar with the concept of special children, and we only had the class for children that learnt obviously slow. That's the reason why I am curious about what if I had an educational experience for special children, will everything be different now? What's the gap between kids with special needs and adults? Is the method that works for kids still available for grown-ups? When we encounter anxiety in our daily life, what kinds of sensories experience that can help us?



Pelini, Sanya. "5 Sensory Experiences That Can Enhance Learning and Benefit Any Kid." Parent.com, Parent Co., 28 Oct. 2017, [www.parent.com/5-sensory-experiences-may-help-calm-anxiety-reduce-misbehavior/](http://www.parent.com/5-sensory-experiences-may-help-calm-anxiety-reduce-misbehavior/).

10.



In this research article Amy Hunt provided very detailed information about how many senses that can be used for conquering the anxiety attack in our daily life. In this era, anxiety almost becomes our daily issue, still we need to wait until the bunch of feelings that accompany anxiety and our behaviors that have already been influenced, we notice that we are in the experience of anxiety. It is important that we make more efforts on our mental care and develop the strategies of how to apply those information onto the products that can enrich our senses, experiences and the emotion.

Hunt, Amy. "Using the Five Senses for Anxiety Relief." Psych Central, Psych Central.com, 8 Oct. 2018, [psychcentral.com/lib/using-the-five-senses-for-anxiety-relief/](http://psychcentral.com/lib/using-the-five-senses-for-anxiety-relief/).

*With fully understanding of how we react to the events and environments are important for our mental health.*

*The practice of recording and knowing is main key to know when and how we need help.*

*After all, a rolling stone gathers no moss.*

