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SOUND
OF
WAVE



Research Summary

Design challenge

01 | How Uni life can be improved ?

02 | How can we help students to reduce their pressure of study in Uni ?

03 | How to promote students' mental health and living quality ?

04 | Do playful facilities, music, delicious foods and enjoyable scenery help?

05 | Context and constraints: As most students won't stay at a place for a long time, we want our design can be easily involved and attractive.

Background Research

Students' Stress and mental health problems

It is generally believed that university life provides students with rich activities and opportunities to make friends, and the prospect of employment is brighter after graduation, for this reason, the mental health of college students is better than that of the general population. Some people may say that three or four years in college is the best time of your life, but for some students, it is far from the truth. Survey data shows that on average, compare with other population, students are more anxious and depressed. (Brown, 2016).

'Sharp rise' issue

In 2015, the National Union of Students did a survey with 1,093 higher education students. According to the survey, 78% students said they had experienced mental health problems in the last few years. 33% respondents said they have had suicidal thoughts; among those who did not consider themselves heterosexual, the number was even higher, reaching more than half (55%). However, 54% of the interviewers said they did not ask for help. One-third said that if they needed it, they didn't know where to get mental health support from their university, and 40% said they would feel stressful thinking about the help they would receive from university.

Background Research

Common ways to ease stress and anxiety

Stress itself is certainly annoying and even horrific as it could damage our mental health. However, a bunch of effective ways are found for stress reduction.

Stress is an unavoidable consequence of life. As the impact and the type of stress vary from person to person, there is no panacea to stress reduction. Aerobic exercises, meditation and yoga might be good for many people, while music, hobbies and volunteer works are also found having positive influence on stress relief. In addition, playing with pets, shopping, nutritional supplements as well as aromatherapy have been found to be effective for anxiety. (Paul J. Rosch, & M.D. 2005)

Natural Sound & Music

"Once you settle on a nature sound you find pleasant, especially for people who with high stress levels." said Gould van Praag who is involved in a research published in journal Scientific Report. He says that nature sound also help improve people's focus and concentration.

According to Dr. David Lewis-Hodgson (2018), who also conducted a research in UK, listening to a song that is "Weightless" (songs with carefully arranged harmonies, tabs lines and rhythms) reduced 65 percent of overall anxiety in participants, and 35 percent in their usual physiological resting rate.

In a large-scale review conducted by a team led by Professor Daniel J. Levitin of McGill University, researchers found that despite the fact that music can help to reduce psychological stress, it can also improve physiological system, aid in healing and improve immune function. (Daniel J. 2013)

Background Research

How can interactive design help with reducing stress

Studies show that individuals' stress management can be effected and enhanced by their interactive experiences (Villani & Riva 2012). There is a strong connection between interactive media and mental stress in the mental health area. Researchers have conducted tests to compare different interactive approaches including sound, video and virtual reality. All approaches with different media can lead significantly positive emotional state change. Virtual reality devices have the most outstanding performance for reducing participants' heart rate during the experimentations, but, the self-report session shows that particular videos can achieve better result comparing to VR and sound.

Poor interaction design can also lead to negative consequences to users, such as anxiety, higher blood pressure, intake of drugs, etc. (Ulrich 2001). The author argued that rather than producing health facilities which satisfy users in functional efficiency, cost and codes, design should also promote users' "psychologically supportive physical surroundings" (Ruga 1989). The approach of 'supportive design' need to be implemented as a complement of medical treatment for reducing stress and anxieties. Ulrich points out that the outcomes of the product should cultivate users' sense of emotional control, access to social support, access to positive distractions and at the meantime avoiding negative distraction.

Background Research

How can interactive design help with reducing stress

The modern awareness of mental health is rising, more researches and efforts are focusing on relieving stress. However, certain activities need to be done in our daily lives (Yoon et al. 2016) such as compulsory works and studies. The paper suggests that the interaction between users and objects need to get integrated into users' daily lives.

Nowadays, there are plenty of interactive devices on the market for relieving stress for people working or studying in the modern fast-paced society, including physical products and applications. They are mainly focusing on outputting sounds, smells, pictures and games to adjust and manage users' stress level (Zetlin 2016).

Existing Solutions

Counselling and mental health support

Based on our literature research, university students are generally faced with varying degrees of pressure. These pressures come from different aspects of school life. It affects the mental health of students. In fact, the university has been very concerned about this situation and provided professional psychological counseling and other related services. For example:

The university provides long-term free counseling and psychological services. But not many people are looking for this method. Because some of them still think that their situation does not 'serious enough' for require psychological counseling, some people think that seeking psychological counseling is 'shameful'. (Levin, Krafft & Levin, 2018)



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What is stress and what are the signs

We are all familiar with stress and it is important to recognise that stress is not necessarily a 'bad' thing. It is a normal response that we all experience frequently. Stress is primarily a physical response. It is the body and mind's way of preparing us to face a challenge.

However, if the stress and the physical symptoms do not settle down, stress can lead to physical or psychological symptoms including:

- Poor concentration
- Difficulty sleeping
- Feeling overwhelmed or out of control
- Anxiety
- Upset stomach


When stressed, the body thinks it is under attack and switches to 'fight or flight' mode.


Existing Solutions

Library Exam Ready Services

The exam period is usually the time when college students are under the most stress. Even few of them commit suicide because of the pressure of exams. At this period, they will need more possible ways to relieve stress. During the exam period, the Fisher Library took many steps try to help students reduce anxiety. For example, Therapy dogs, Chill out zone and Positivity wall. In fact, some of them have received great feedback.

We have found that for most people who are under academic pressure, they can effectively alleviate their anxiety or stress through games, music and other simple but fun and delightful activities. This finding has guided our design direction. We want to create something simple but fun, hoping to help them ease some of their pressure.

 Book a study space

 Book equipment



Buddy Study

Studying with others helps you learn! Assemble your crew, learn new group study techniques and enjoy some free pizza!

Bookings essential



Breakfast Club

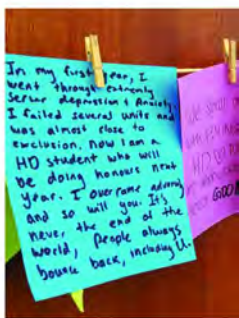
Start your day off right for a free breakfast library. It'll be a cere time!

Bookings essential



Chill out zone

Take a break from the books and head to one of our chillout zones. There's colouring in, craft and games!



Positivity wall

Need a boost? Read messages of encouragement from other students on our wall or write your own and brighten someone's day!



TARGET GROUP & AREA OF PRACTICE

Current student of
the University of Sydney

Within the campus of
the University of Sydney



USER RESEARCH METHODS

Qualitative research:

User interview (7)

User observation (10)

Quantitative research:

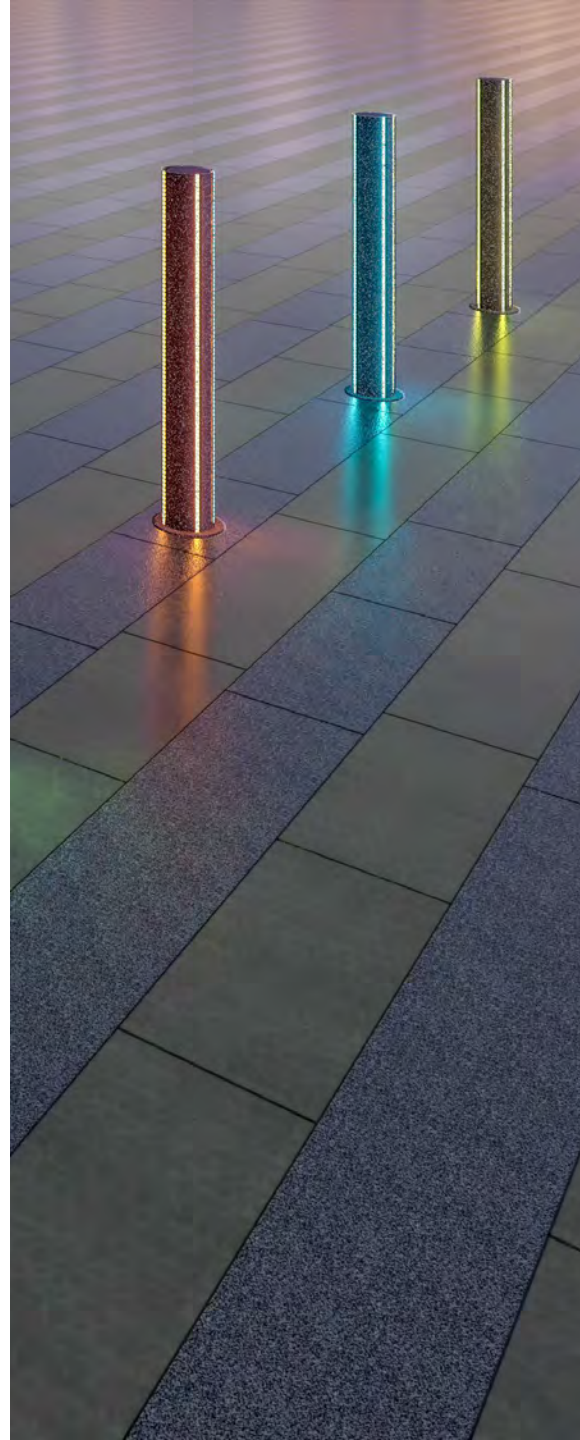
Site flow data (160 min)

Affinity Diagrams

Storyboard

Persona

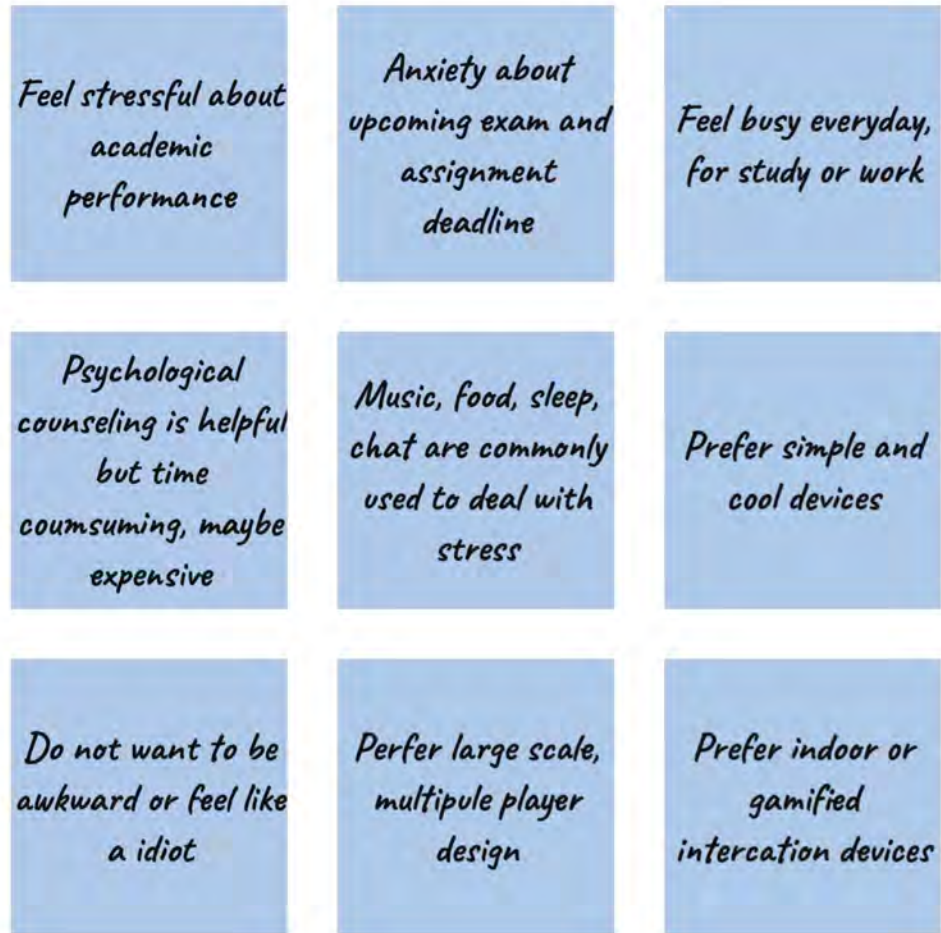
Data Analysis



Qualitative Analysis – Affinity Diagrams



Qualitative Analysis – Affinity Diagrams (cont.)

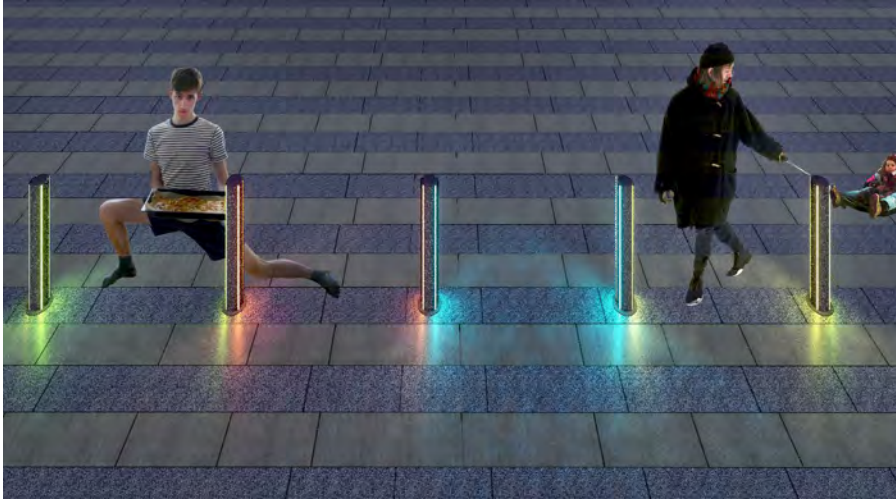




FINDINGS

Based on the interview we conducted, we concentrated the information by analyzing with affinity diagram. We found that the depression among students mainly comes from academic and work(part-time) pressure. Music, food, sleeping and talking to others are frequently adopted to help themselves

ease the desperation ,and psychological consultation is also welcomed by some of the students while others think it's time consuming. As for their ideal interactive device, most of the students prefer simple, cool, gamified, large scale and multi-interactive device.



Problem Statement



Mental health problem becomes increasingly common on campus. A huge proportion of students admit that they are suffering from anxiety or pressure during their daily Uni life. (Brown, 2016)

However, not every student can easily get in touch with psychologist. Hence, we'd like to try our best to solve this problem in a much more convenient way.

By changing the public space in the University, we want to get all the students who appear in the site involved and bring them happiness.



NEEDS

Mental health problem is getting more and more attention from the society, especially Universities. University of Sydney, for example, establish several activities in its library to ease stress and anxiety of students during exam period every semester. Furthermore, most of the students admit that they would face desperation from time to time in their Uni-life.



ISSUES

Although mental problem is recognized as a common phenomenon among student, there is seldom a chance for students to get in touch with psychologists. Whereas public space design is commonly agreed as a much more convenient and entertaining way to relieve one's negative emotion because of its wide range of effect and huge variety of performance.

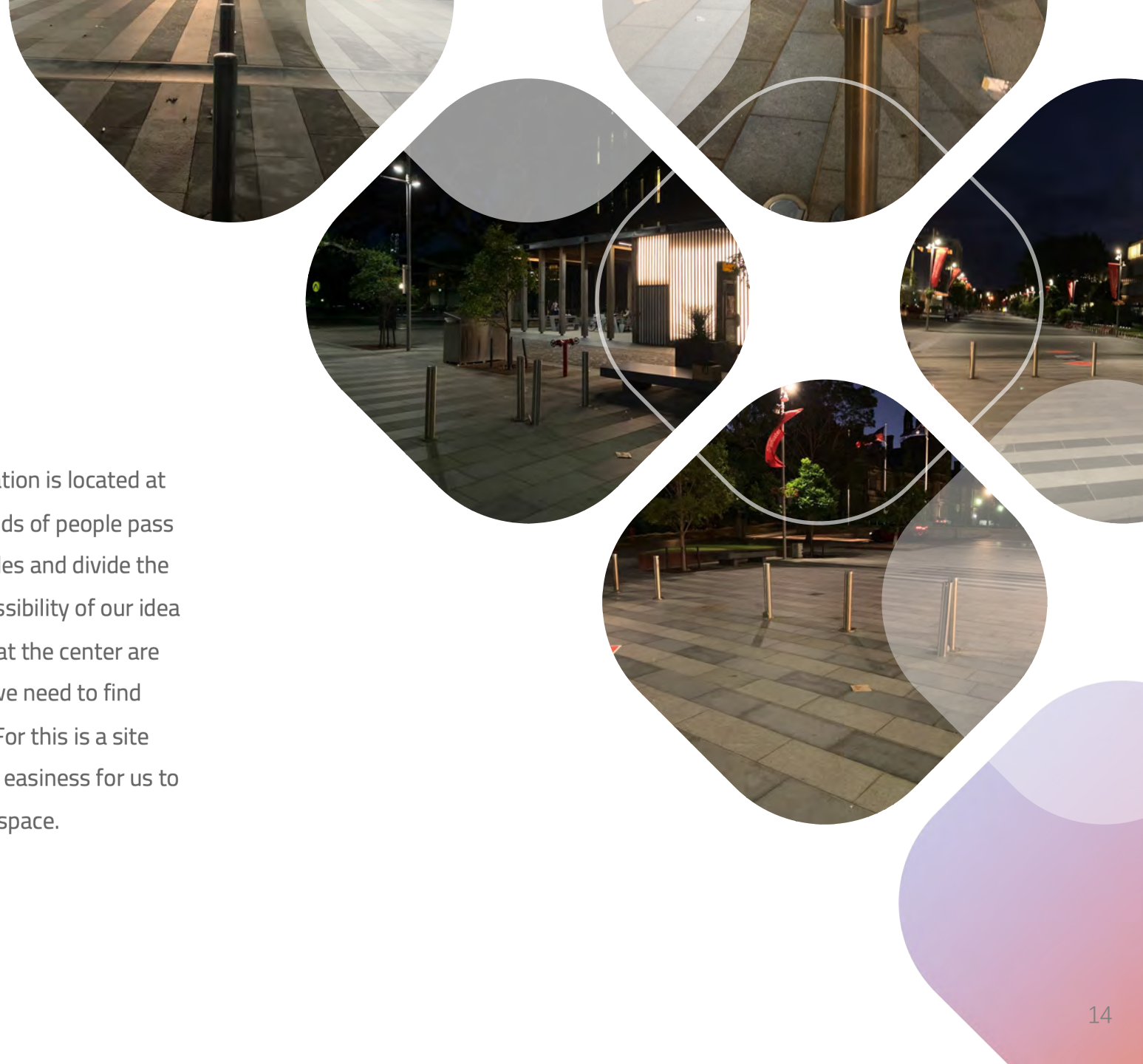


CONSTRAINTS

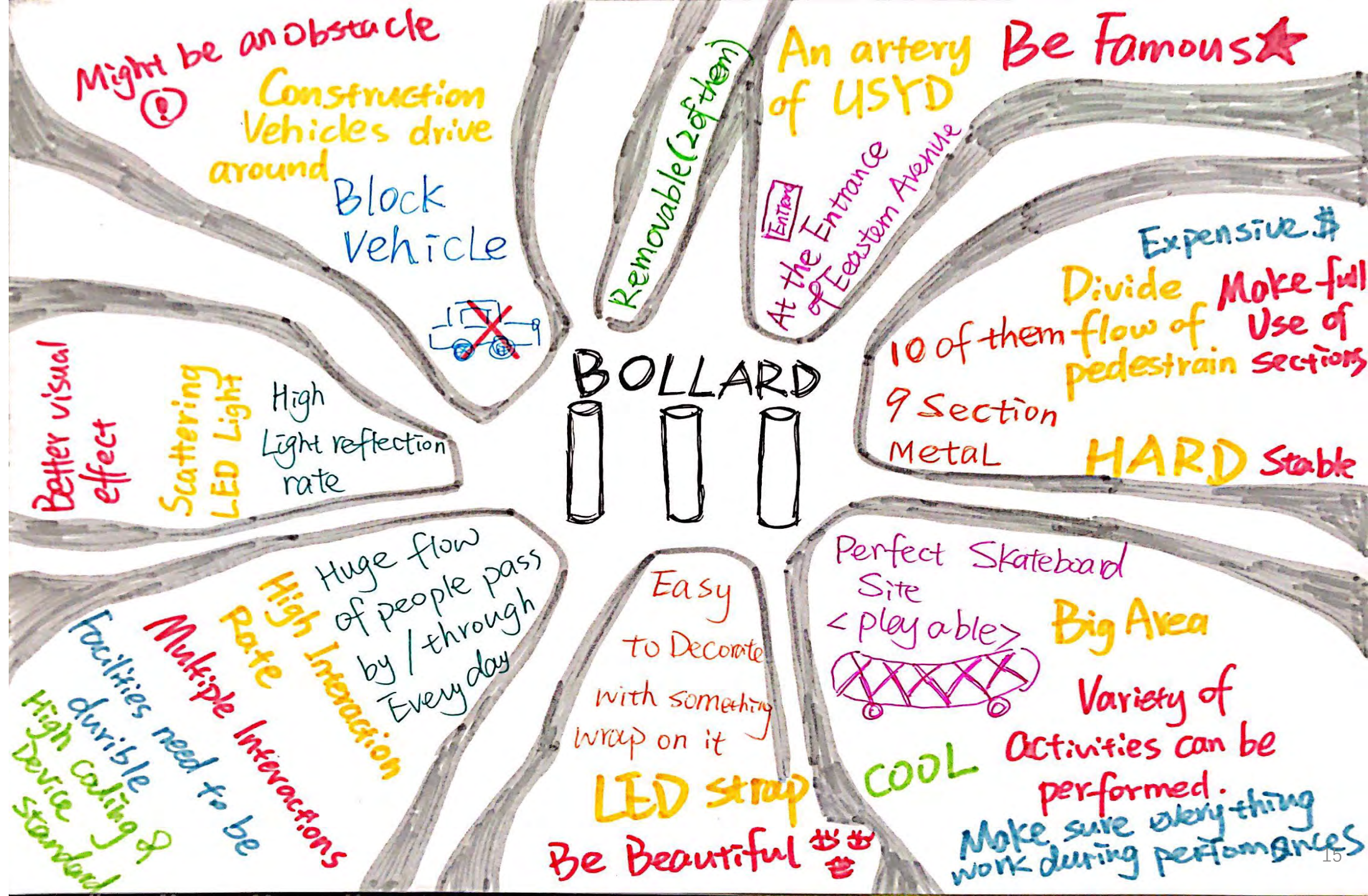
As most of public space are under the charge of certain authority, designers have to take their rules into consideration. Besides, the huge number of people can be either advantage or challenge to the devices.

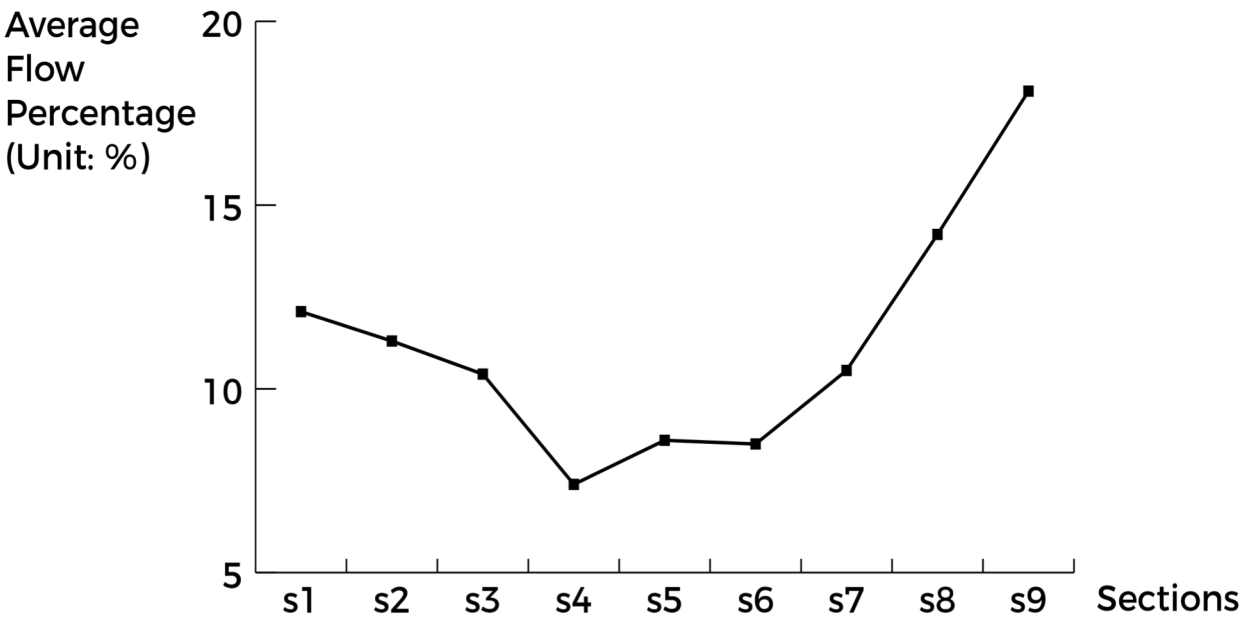
Current Practice

The site we choose to demonstrate our imagination is located at the entrance of Eastern avenue, where thousands of people pass by. 10 bollards are built there to block the vehicles and divide the entrance into 9 sections, which increase the possibility of our idea to create a multi-mode device. As 2 of bollards at the center are removable for vehicle in emergency condition, we need to find ways to make our design portable and flexible. For this is a site where almost every student might visit and the easiness for us to realize our idea, we choose here to be our ideal space.



Mind Map






FINDINGS

After 2 days of flow tracking (mainly focus on time period of 5pm to 8pm), we find that about 32% of people would pass through the bollard. The percentage of people passing through section 8 and 9 is slightly larger than that of others’ at about 18.1% and 14.2% respectively, followed by that of section 1 and 2 reaching about 12.1% and 11.3% .

Quantitative Analysis – Flow Tracking

TIME	SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5	SECTION 6	SECTION 7	SECTION 8	SECTION 9	TOTAL	PEDESTRIANS	INTERACTION RATE
April 8 16:44 – 17:04	25	41	25	21	24	25	23	82	80	343	912	37.6%
April 8 18:20 – 18:40	13	9	5	5	5	9	10	12	14	82	315	26.0%
April 8 17:30 – 17:50	24	16	26	18	14	28	30	16	17	189	491	38.5%
April 8 17:55 – 18:15	28	27	10	14	8	6	14	15	16	138	378	36.5%
April 9 17:05 – 17:25	19	22	20	11	14	13	17	21	36	173	637	27.2%
April 9 17:30 – 17:50	23	20	14	17	21	11	13	18	25	162	525	30.9%
April 9 18:20 – 18:40	12	8	18	7	22	10	19	15	27	138	450	30.7%
April 9 19:00 – 19:20	15	5	18	4	5	9	12	8	22	88	320	27.5%
AVERAGE	19.875	18.5	17	12.125	14.125	13.875	17.25	23.375	29.625	1313/164.125	4028/5035	32.6%

As is shown on the table, most of people prefer walking on the side of the avenue and would rather not go through the obstacles. This is because their destinations or start points are mostly located on the side of the avenue such as Fisher Library, Chemistry Scheel, New Law Building etc. and thus walking on the side could save their time and bring them more convenience.



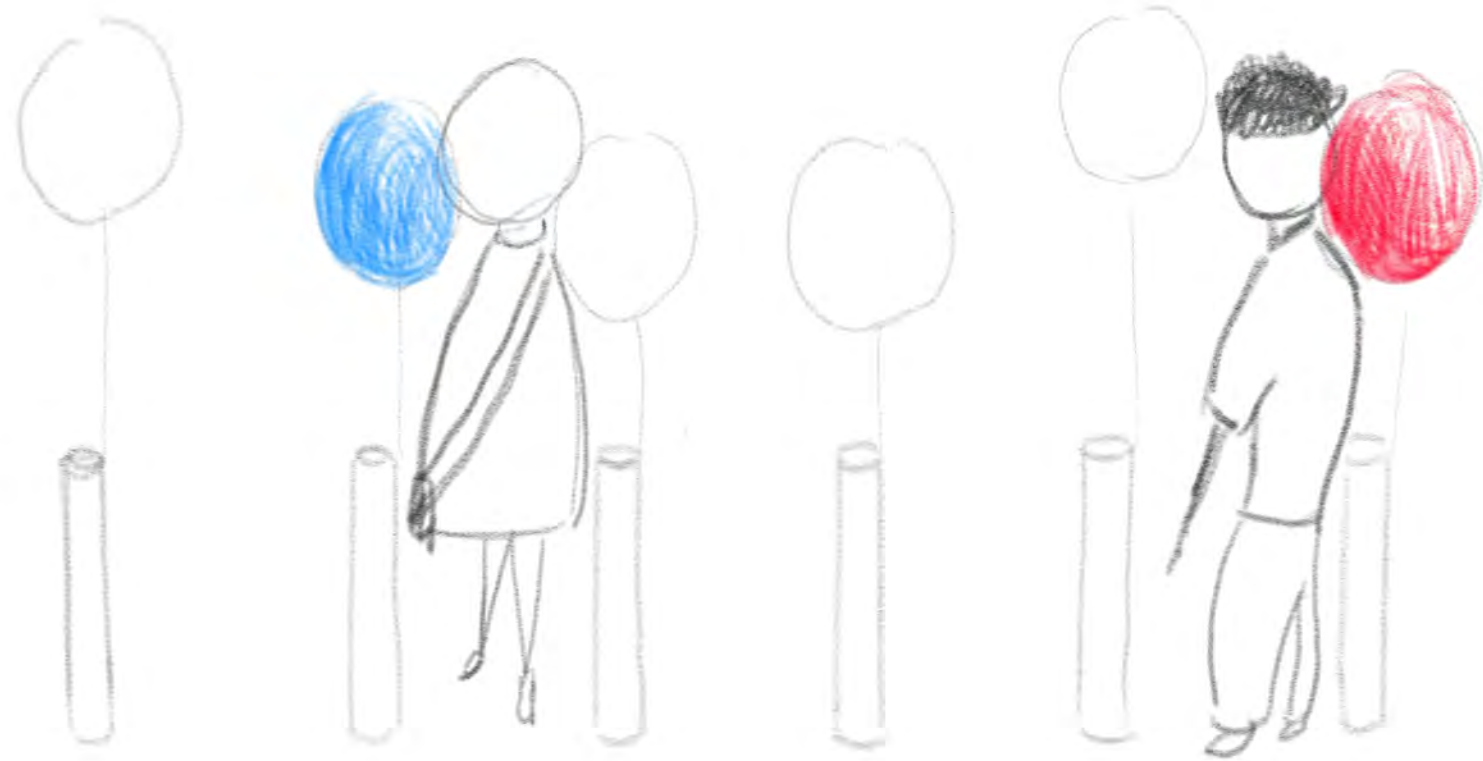
Design Document

Site 1

Initial Concept 1

We found this bollards near the Fisher Library cafe unintentionally. The bollards here are for stopping vehicles drive into the pedestrian zone, so it is just a cold, impersonal and pure functional facility right in front of the main artery of USYD. We want to make it alive. Balloons contain LEDs to create a scattered illumination at night in order to provide some playable objects when students pass by. It can also create a contrast with the seriously academic atmosphere. Proximity sensors will be installed between bollards to trigger the interaction.

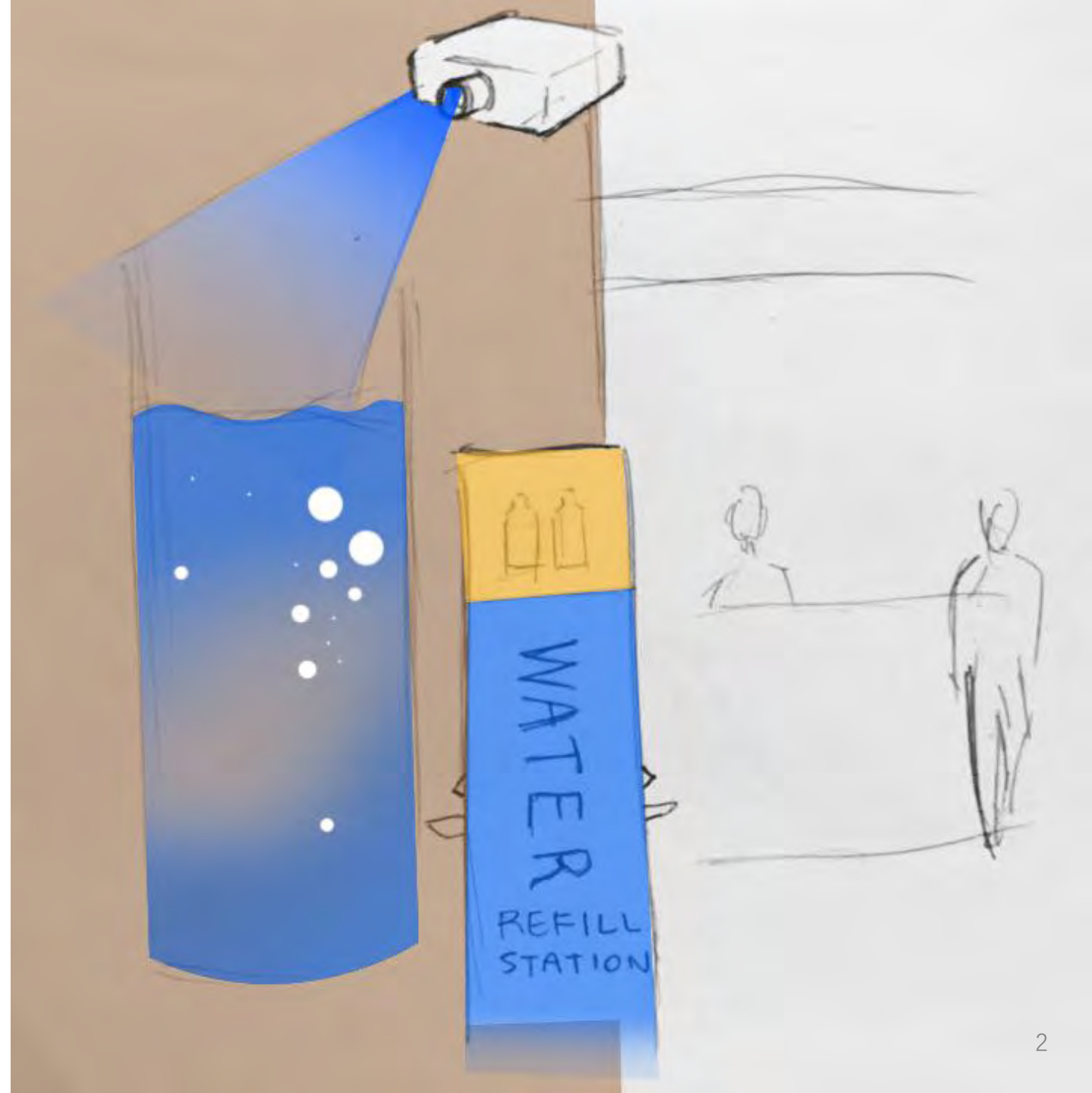
Bubble Bollard



Site 1

Initial Concept 2

This concept is based on the water refill station near the Fisher library. We saw many people are drinking and refilling water here. Water is a precious resource and we are keep using it. This idea is to increase students' consciousness of saving water. There is a facade behind the water bubbler that we can project some animation on it. Once the water tap is activated, the water in the animation will be consumed till exhausted.



Site 2

Initial Concept 1

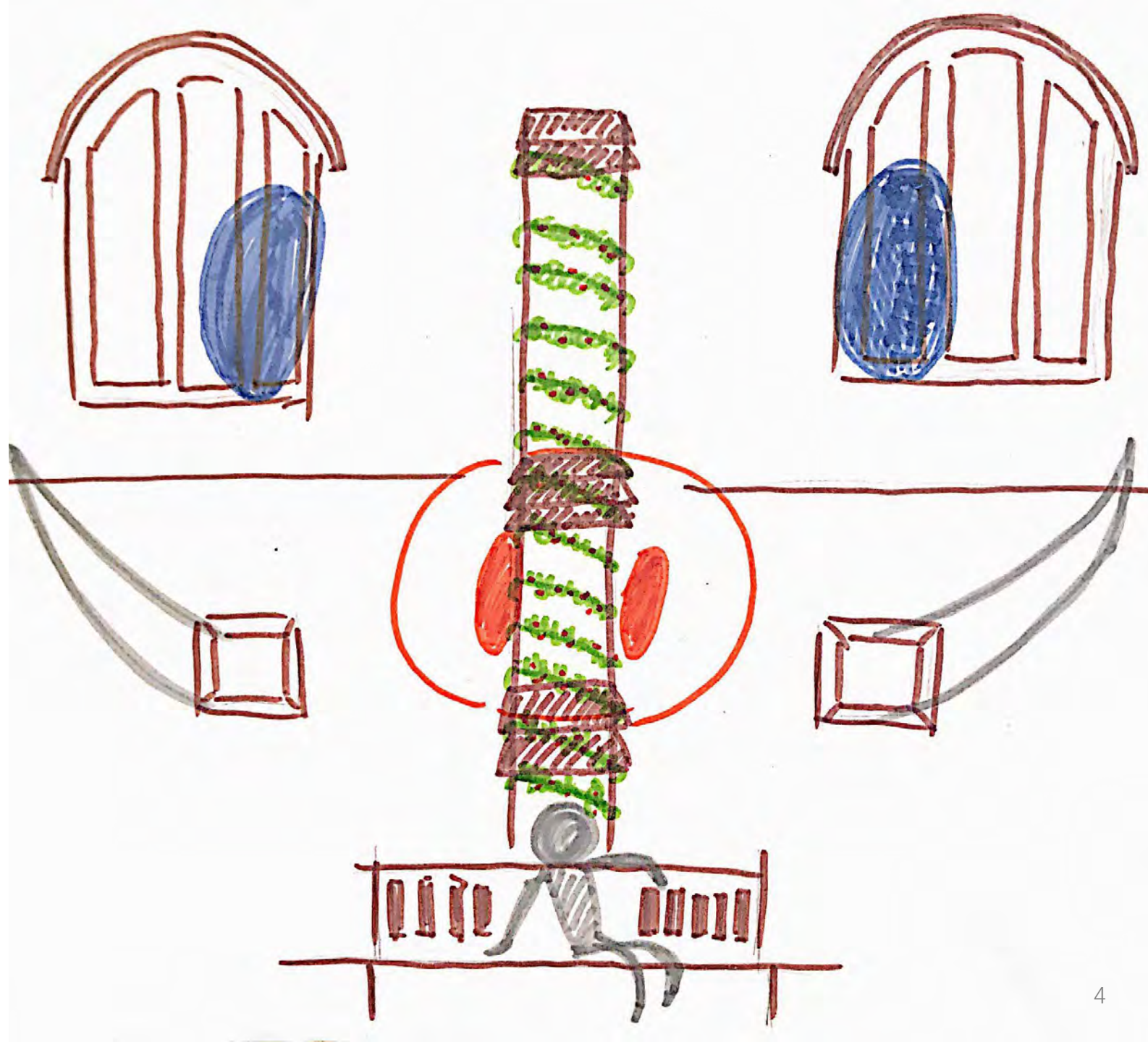
This idea is also based on Botany Lawn. There is a big tree we can interact with. The trigger can be the proximity sensors on the couches. There are students and visitors sitting on the couches for studying, dating or just visiting. As it is not very bright at night at this location, we'd like to add some colours to the environment to promote the atmosphere to provide a better night view for audiences. Our idea is to hang balloons with RGB LEDs inside to decorate the tree. Depending on the distance between the audience and the sensor, the colour and brightness will be changed.



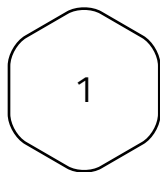
Site 2

Initial Concept 2

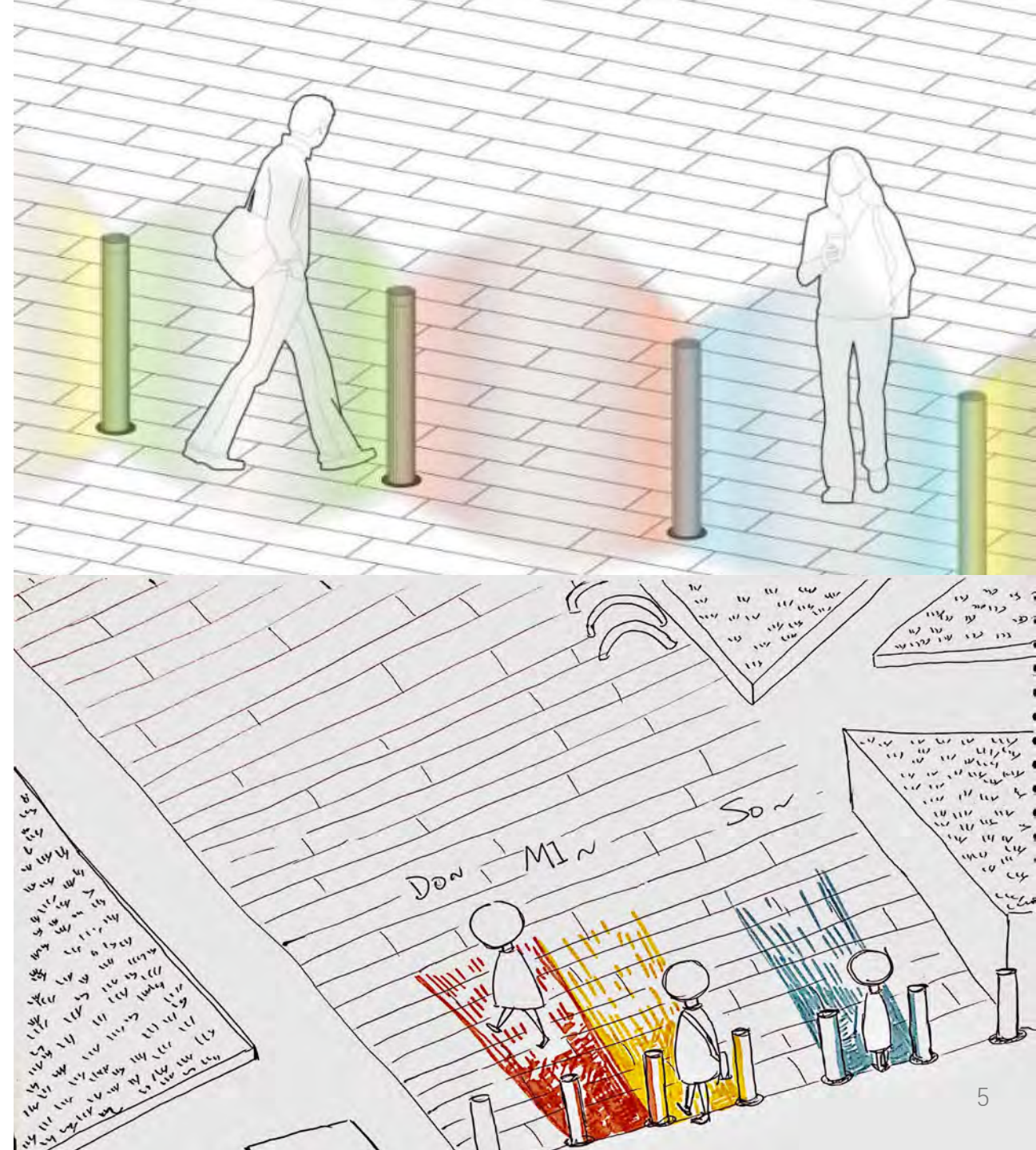
There are benches against the north facade of the Great Hall at the Botany Lawn. We found that the geometric shapes of the objects on the facade including columns, windows and decorations can be imagined as an animal face. The imagination generated the first idea: when an audience sit on the bench, there will be an image projected on the facade. The content of the projection can be animals, which represents the wildness of our most primitive nature. Another idea is to project different occupations, to reflect the audience's childhood dream. Comparing the reality and the dream could affect audiences' emotional resonances.



Final Design Concept

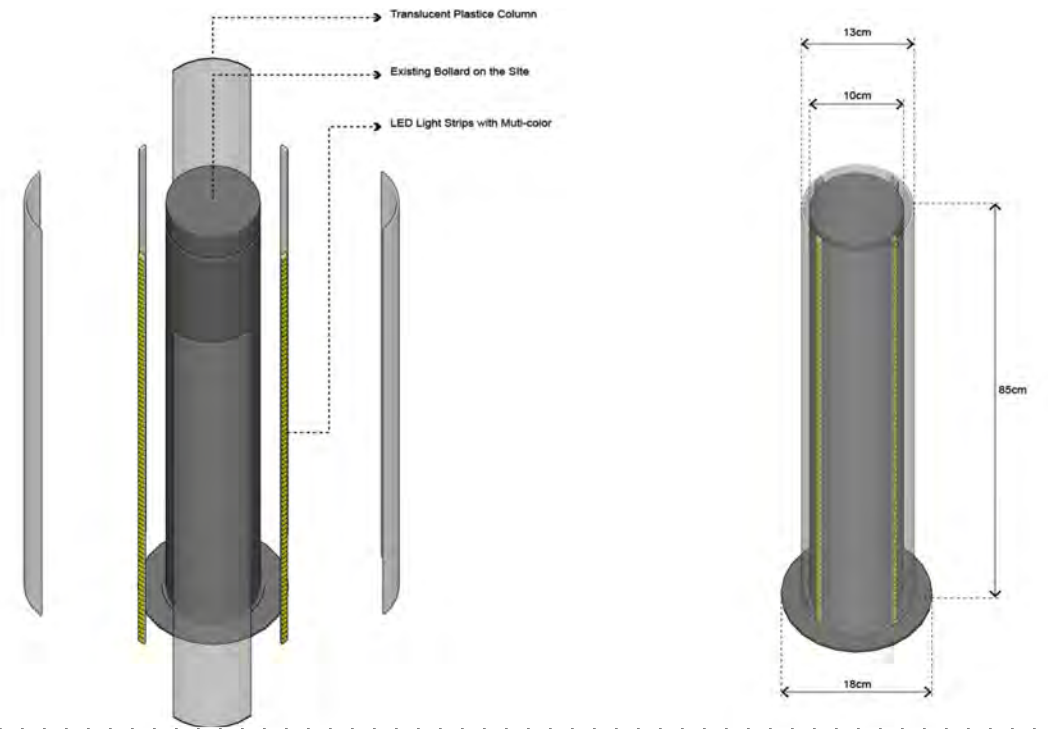
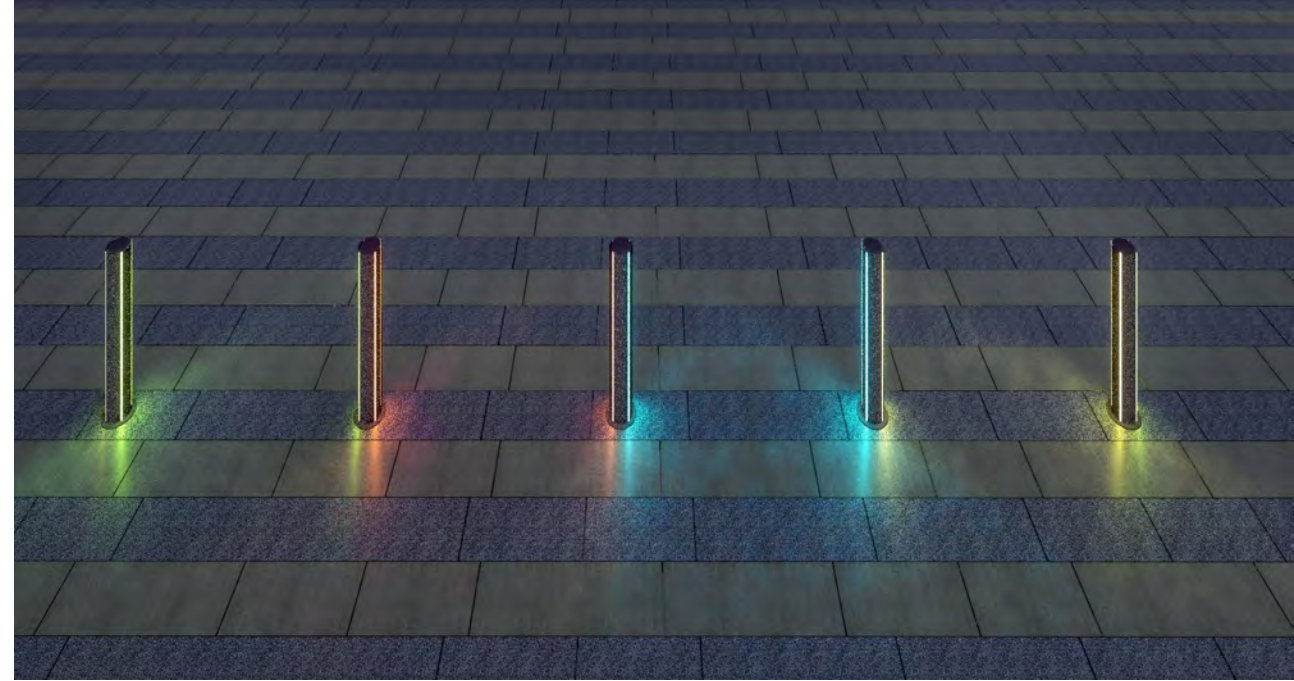


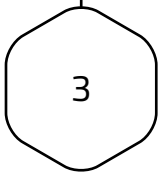
After our analysis and discussion we finally decided to choose the Bubble Bollard concept and keep working on it. This sketch demonstrates the ideal performance of the interaction.



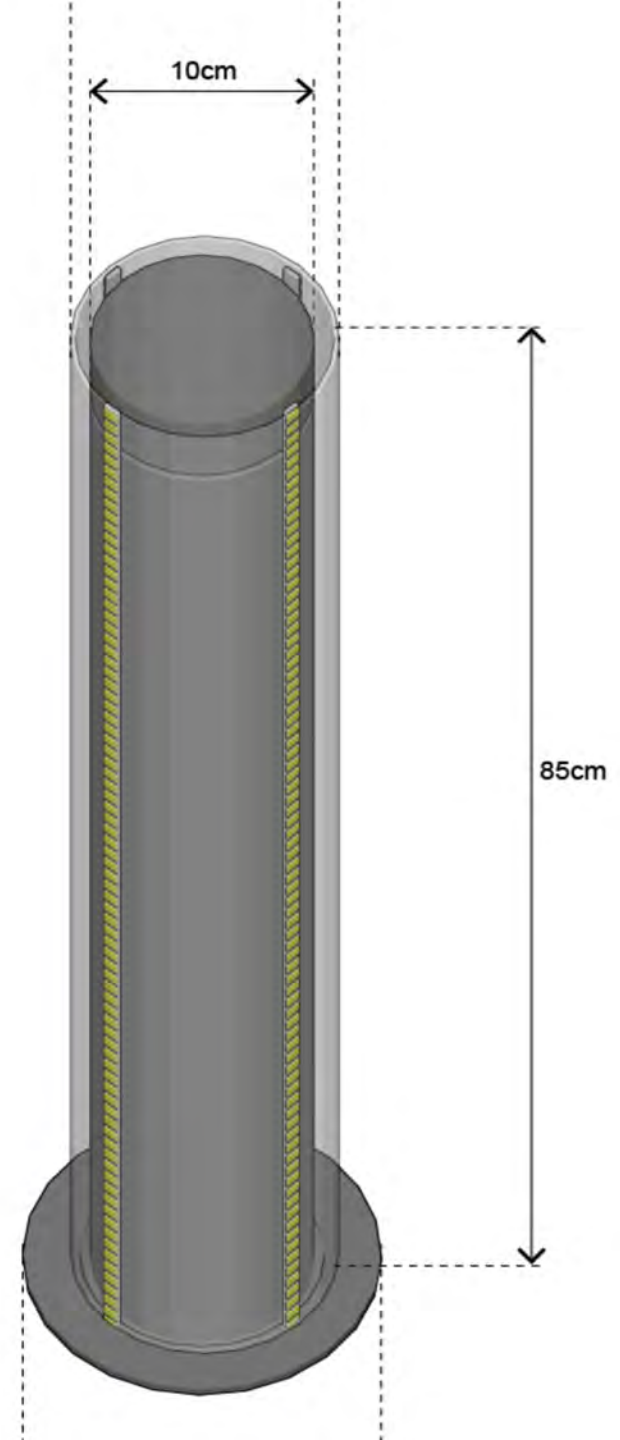
2

The input component for this project is still proximity sensor, and the output has integrated both visual and sound effect, by using LED strips and speakers.

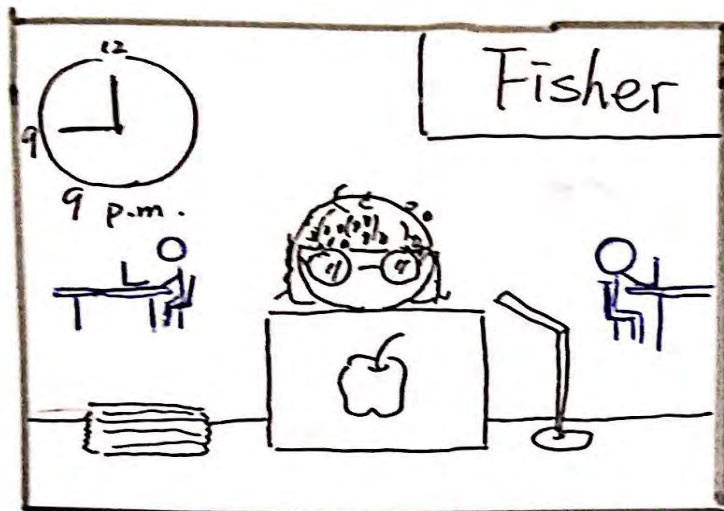




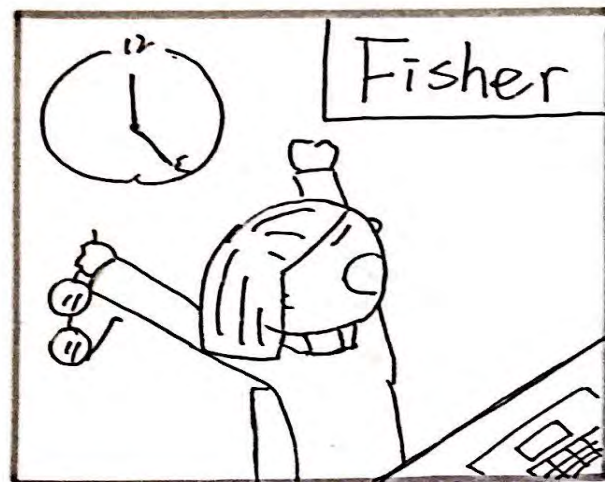
When students pass by, our project could provide some joy and relaxation among the hustle and bustle of Uni life.



Storyboard #1



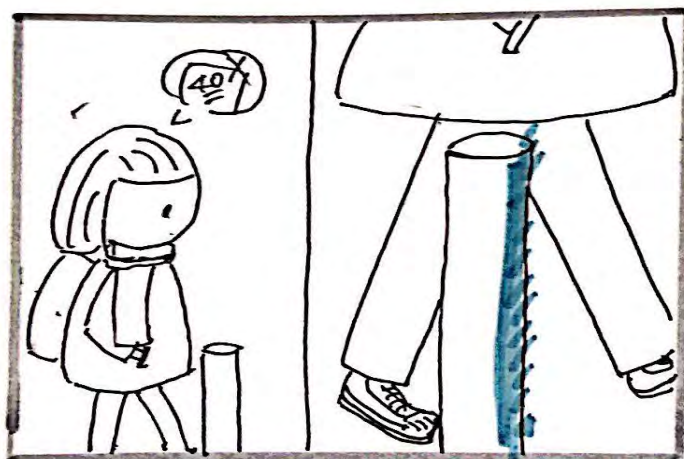
Kelly is preparing for Final Exam, very hard.



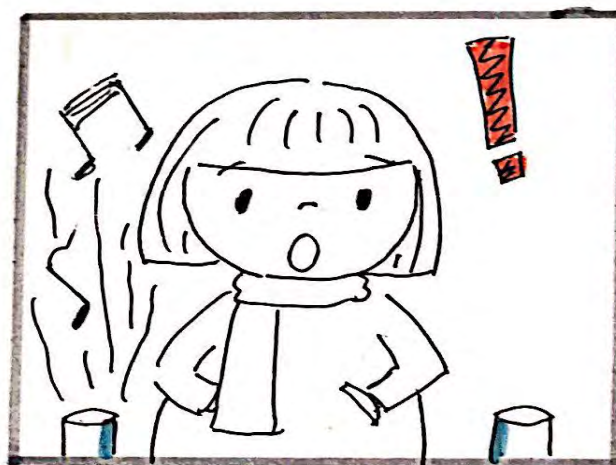
After 8 hours' hardworking Kelly decides to have a rest.



Kelly walk out of the Library, but can't stop thinking about her exam



Kelly, thinking about the exam, walk through the bollard

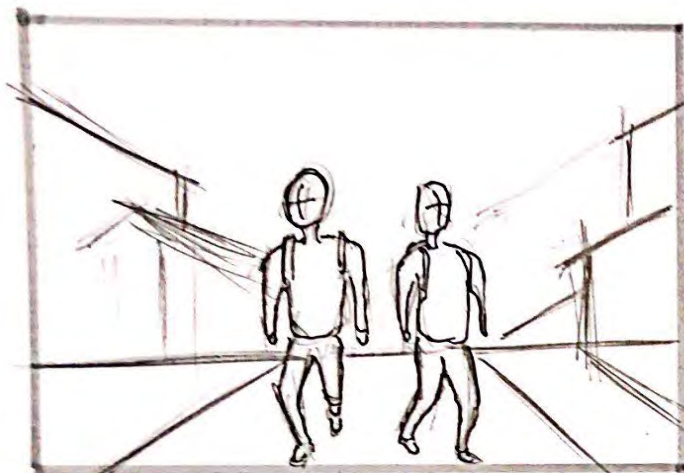


Kelly hear the music sees the Comes out of the bollard and lights

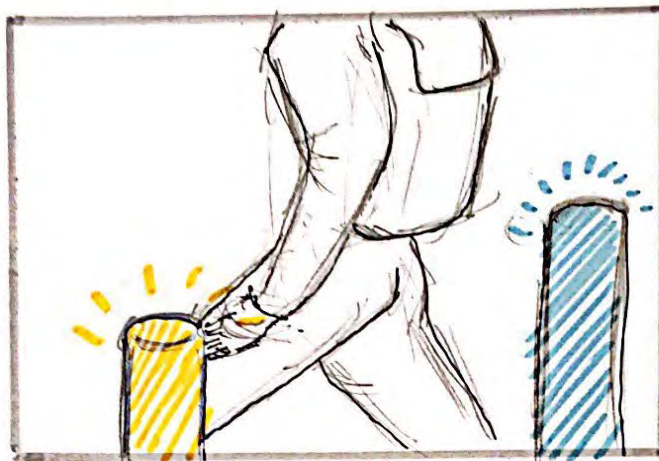


Kelly get refieeved

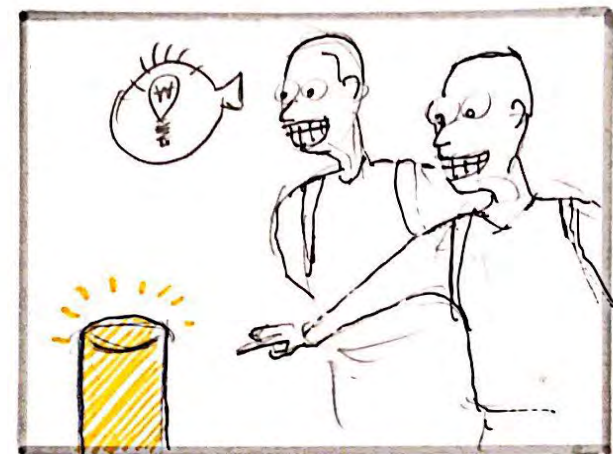
Storyboard #2



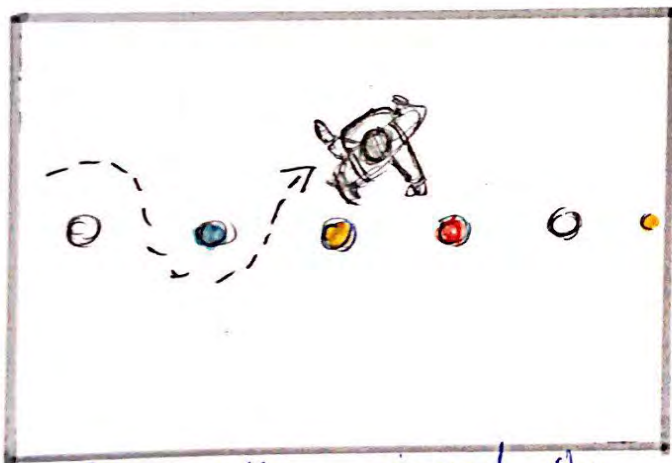
After a whole day study, Jeff & Jack are tired. They are heading train station.



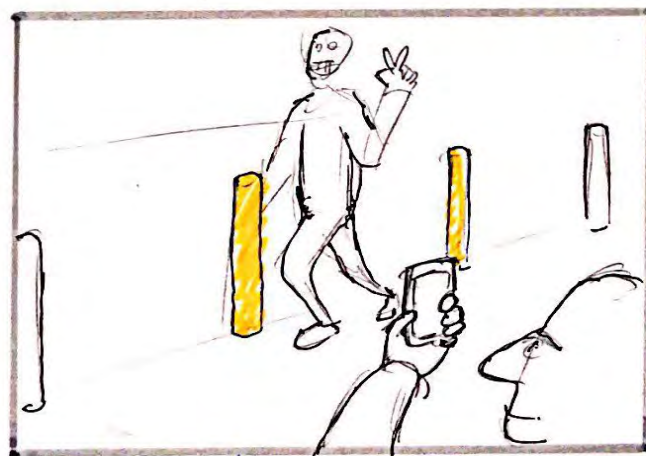
The ballad is ~~lit~~ illuminated & Jeff and Jack realized the ballad can be interacted.



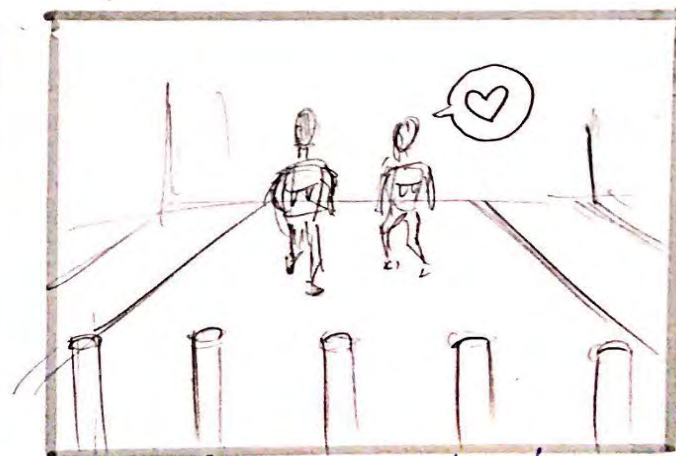
Jack has never seen such a interesting public facility on campus. They want to have fun with it.



Jeff is walking around the ballads & enjoying the interaction



They are having fun with it. It has even caused honey-pot effect.



After a few minutes, they keep going to the station. The interaction with the ballad just eased their bad emotion.



Concept Development

There are many variations of The idea of turning the bollard into a light and sound effector is basically grown from our hope to create a mental friendly place.

Firstly ,in our research, we found that the phenomenon of mental health issue is actually quite common in students while rarely have them adopt any particular way to solve that. Therefore, we'd like to create a way to help students solve this problem and try to get all of them involve choosing the location with larger people flow.

Secondly, music, hobby or something handy is much more popular among students to choose to ease their depression compared with psychological consultation. As a result, we simplify the interaction method to add more convenience to our design.

Instead of thinking just by ourselves, we asked our participants to tell us what kind of design are they expecting to see. As a result, simple cool and multi-interactive design are quite popular. Therefore, we keep our design neat by just using several LED strips and add various sound mode to increase its playability.

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The background of the slide is a perspective view of a tiled floor, likely in a subway or public transit station. Several vertical poles are visible, receding into the distance. A semi-transparent gradient is applied over the entire image, transitioning from a deep blue on the left to a warm orange on the right.

Appendix

Quantitative Analysis - Flow Tracking

TIME	SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5	SECTION 6	SECTION 7	SECTION 8	SECTION 9	TOTAL	PEDESTRIANS	INTERACTION RATE
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AVERAGE	19.875	18.5	17	12.125	14.125	13.875	17.25	23.375	29.625	1313/ 164.125	4028/ 503.5	32.6%

Qualitative Analysis - Individual Observation

OBJECT	GENDER	APPERANCE	MOOD	DESTINATION
1	Female + Male	Normal Student	Casually Chatting	Wentworth Building
2	Female	AirPods/ in Green	Alone/Checking Mobile	Fisher Library
3	Female	Headphone	Normal	Lawn to meet friend
4	Male	Earphone	Walking in a hurry	Parking Lounge
5	Male	Popcorn hair	Walking slowly	Fisher Library
6	Male	Simple outwear	Blue/Stay away from people/Walking slowly	Business School
7	Female	Sport gear	Light	Cross the City Rd
8	Female	Normal	Talking with friend	New Law Building
9	Male	Backpack	Expressionless	Fisher Library
10	Male	Holding a laptop	Expressionless, walking fast	Fisher Library
11	Male	Backpack, headphone	Relax, walking slow	Bus stop on City Rd

Qualitative Analysis -Individual Tracking



Qualitative Analysis – Interview Transcript 1

Name: Wu Age: 23 Gender: Female Course: Art Curating

Q: Hi, Wu, would you mind talk about your recent college life?

A: Overall, it's not bad, except for the pressure on the exam period. Oh, plus, there are too few boys in our class, which makes me very dissatisfied. Other than that, there is nothing to complain about.

Q: Will there be some negative emotions or thoughts in your daily life?

A: Occasionally, it is generally comes from the anxiety that I can't finish my assignment on time. Especially at midterm and the end of the semester.

Q: How do you deal with these negative emotions in general?

A: Listen to music, talk to good friends, exercise. These have solved most of my emotion problems.

Q: Have you considered psychological counseling when faced with negative emotions?

A: In fact, I used to consult a psychiatrist about some social relationship stuff. It is helpful, but the whole process is relatively cumbersome and requires appointments and waiting. Most of the time I feel that it is not necessary. But if the negative emotions exceed a certain level, or I can't handle it myself, I will still seek psychological counseling.

Q: Do you think that some kind of public space interaction devices can help you alleviate negative emotions?

A: I am not sure, but I definitely will give it a try. Fun things are always enjoyable for me.

Q: What features do you think such a device needs to have?

A: First of all, I like colorful design, then the interaction method should be simple, does not need to waste time on learning, because I am really lazy you know. All in all, as long as it is fun, I think I will want to participate.

Qualitative Analysis – Interview Transcript 2

Name: Jack Age: 19 Gender: Male Course: Advanced Computing

Q: Hi, Jack, would you mind talk about your recent college life?

A: Most of my recent time spent in the library, and I am still preparing for a midterm exam, so let finish this quickly. I feel that there are only assignments, quizzes and exams in this semester, one after the other, there is no time for me to do anything else. I always feel that time is not enough.

Q: Will there be some negative emotions or thoughts in your daily life?

A: Tired, both physically and psychologically. Even if the time is free, I just want to sleep or stay at home. Study is already exhausting, I have no time to deal with emotional issues.

Q: How do you relieve yourself from stress?

A: Sleep is the best way for me to reduce my stress. Besides that, Play games, watch movies, listen to music. That is all.

Q: Have you considered psychological counseling when faced with negative emotions?

A: Never. First of all, I think psychological counseling is definitely expensive. Secondly, I don't think I need any kind of psychological intervention.

Q: Do you think that some kind of public space interaction devices can help you alleviate negative emotion?

A: I'm not sure I understand what you mean. If it's a gamification or a some kind of playable device, I think it could be helpful. But the interaction process should be natural. Personally, I won't spend too much time on this kind of thing, so it is better if the device could be easily understand.

Q: What features do you think such a device needs to have?

A: I personally like games, so I prefer a gamified design. Hopefully, it could be a larger device, and support for multiple players. I think a cool device can attract anyone.

Qualitative Analysis – Interview Transcript 3

Name: NG Age:26 Gender: Male Course: Master

Q: How is your uni-life at the moment?

A: My university life is awesome at the moment. I have had a caption on my social network, such as Instagram, i.e. "Too cool for school", to tell people I have been enjoying my school life with schoolmates, teachers and things happened throughout my uni-life, etc. Especially, my schoolmates coming from other cultural backgrounds have been inspiring me how to be a think-outside-the-box person. For example, we usually discuss social issues from different perspectives. In the course of discussion, it sort of pleases me because I can learn how to view an issue from diverse angles. And it enriches my horizons.

Q: Do you feel any negative feeling during your uni-life? When?

A: Yes, I have. I am not the kind of aggressive person compared to my mates whom have been striving to do something productive to their future development, such as looking for an internship at a renowned company. And I have seen undergraduates falling over themselves to apply for internships in big companies no matter they like it or not, they just send out tons of cover letters for offers. This has made me super strained. Comparatively speaking, I am lazy. I have not had any blue prints for my career path up until now. It seems I may fall much behind from them in terms of job opportunities.

Q: What do you usually do to ease your negative emotion?

A: I am sort of a people-person so I'd talk to my mates. Whenever I feel deflated or upset, my friends would be someone to turn to. They are not like somebody else whom would turn their deaf ears to someone who are now in desperate need. In the contrary, they would ask me out for a stroll, and have a heart-to-heart chat with me to ease my strains.

Qualitative Analysis – Interview Transcript 3 (cont.)

Q: Have you ever thought about consulting a psychologist? Why?/Why not?

A: Yes I have and I did before. There were 2 of my mates diagnosed with depression, that has made me alert to mental health. And at the same time, I found out myself breathing so badly even I had nothing to be worried about. I just couldn't breathe, like there were lots of things on my mind that I failed to get off my chest. And most importantly, consulting service did help me get through this, even though I burst into tears every time I saw the consultant in the room after 6 times of consulting. The way the consultant tried to get me through was kept digging deeper into the things happened throughout my childhood.

Q: Do you think public design (Like a playable device that you could take part in or something for display) could help you relieve your negative emotion?

A: Yes, for sure. I guess, public designs could be of help to people whom would rather leave themselves alone at the time while they confront with negative emotions. And, it could be of help to me as well though I mentioned that I am a people person. I sometimes leave myself alone, go for a stroll and play with public designs to release pressure.

Q: If so, what kind of design do you expect to take part in?

A: I expect a Monster Ball. When I feel upset and I don't want to turn to anybody else, I'd turn to this Monster Ball, which is like when I don't need it, it hides itself in a portable ball; and when I need it, it comes out like a monster with super high IQ to play chess with me. I'd be so proud of myself and be relieved if I could beat it down a super smart Monster on chess.

Qualitative Analysis – Interview Transcript 4

Name: Ano Gender: Male Course: Industrial Design

Q: How is your Uni-life going at the moment?

A: I'm kind of busy right now because you know I'm a product design student, we don't have exams, which means we have lots of assignments to do. One of the due dates is coming and I need to finish it ASAP. I didn't sleep very well recently. Too many things to do. I have a part time job during my assignment which sucks AF.

Q: Do you have any negative feeling during your Uni-life?

A: Of course. I think most of students would have negative emotion sometimes, especially when you have too many things to do or you have a exam or assignment failed. Time management is difficult. Have to deal with multiple projects every week, making uni-life very stressful.

Q: What do you usually do to ease your negative emotion?

A: I think eating, chilling with friends and sleep could help me a lot. Sometimes I will go out with friends and have some alcohol. But to be honest it only works for a while. You know, you eventually have to finish the stuff you need to submit. lol.

Q: Do you think public designs (public facilities, recreational facilities, Surroundings, atmosphere, buildings...etc.)can help you to relief your negative emotions?

A: Sure will, change on surrounding objects can change the way people feel and behavior. For example, the lawn in our campus is a good place to chill.

Q: If so, what kind of design do you expect to take part in?

A: I think textile design, interior design will play the most important role to relief negative emotion. I personally like in-door public facilities, like some public gaming devices. There is a VR device near the smaller library and you can play video games on it. That looks like a big relief for me.

Qualitative Analysis – Interview Transcript 5

Name: LU Age:24 Gender: Female Course: Master

Q: How is your uni-life at the moment?

A: Obviously in Chaos. But there are definitely a kind of pattern in my uni-life, because I rest and study everyday and I feel busy.

Q: Have you ever had any negative feeling during your uni-life? When?

A: I feel depressed when I could not find literature reference, fail to write anything in my essay, especially when I could not express myself properly in English.

Q: What do you usually do to ease your negative emotion?

A: I would do some shopping, like furniture store, fashion store or sometimes I would listen to music to distract my attention on negative emotion.

Q: Have you ever thought about consulting a psychologist? Why?/Why not?

A: Nope. I think I could solve my problem myself.

Q: Do you think public design (Like a playable device that you could take part in or something for display) could help you release your negative emotion?

A: Yes, definitely. Because when you feel depressed resulted of study. Anything would delight you as long as it has nothing deal with study.

Q: If so, what kind of design do you expect to come to live?

A: I prefer something that I could play with other people, large-scale interactive Video game ,for example. Or some kind of display with natural scenery like team lab.

Qualitative Analysis – Interview Transcript 6

Name: Jay Gender: Male Course: Product Design

Q: How is your Uni-life going at the moment?

A: Good. Just finished my military service and came back to Sydney. I'm going to continue the classes which have been suspend 2 years ago. But all the classmates and friends are doing higher grade or degree right now, and I have met so many new faces in the class. Imo it is both good and bad. The good thing is I can get new friends and the bad thing is I'm gonna lose some friends I met 2 years ago.

Q: Do you have any negative feeling during your Uni-life?

A: Yes. Assignments are way too many for me right now. Some of the assignments require the previous knowledge. I have left for so long, some of the stuff I learnt 2 years ago are forgotten yet, and also, the new course is slightly different to the one we had before. The new industrial design course has added programming classes but I have no idea about programming and coding. I'm not very happy with that. I have to mend the programming skills by myself.

Q: What do you usually do to ease your negative emotion?

A: Eat, sleep, listen to music, watch drama and so on.. I got plenty of hobbies to ease my negative emotion. As long as I'm not looking at the assignments, I'll be happy. Sometimes I slept way too much so that I could miss the lecture.

Q: Do you think public designs (public facilities, recreational facilities, Surroundings, atmosphere, buildings...etc.)can help you to relief your negative emotions?

A: I think so, but I'm not quite sure. There are a bunch of public facilities like arts and sculptures in the campus which are interactable. But I barely can see anyone is interact with them. Most of the public things are more like a directions rather than what they should be.

Q: If so, what kind of design do you expect to take part in?

A: Movie theater. btw is movie theater a public design?! A movie theater maybe way too big. I think something practical is needed. We need things that we really want to interact with, not the thing that makes you look like an idiot and feed awkward when you are playing with in public areas.

Qualitative Analysis – Interview Transcript 7

Name: Manoji Age: 26 Gender: Male Course: Computer Engineering

Q: Hi Manoji, do you mind to talk about your Uni life? Is everything goes well?

A: Well, sure. I am relatively satisfied with my current study and life, and I get along well with my classmates. I think my life is quite good except that I am under relatively heavy academic and work pressure.

Q: Do you have any stress or worries in your life?

A: I am a person with few words. I think I am not good at communicating with people in most cases. Of course, there are advantages and disadvantages in this way. In other words, due to the pressure of study and life (I have to work three days a week), I have to stay up late to do my homework, or I have to give up my weekend. I didn't feel bad at first, but I did felt bored and stressful over time.

Q: What do you usually do to release the stress?

A: I usually don't do anything, I mean I might play video games or watch movies, but like I said, I'm anxious because of time constraints, so how can I have time to play games, so I just kind of sit there and do nothing, or I listen to music while I study

Q: Have you ever considered psychological counselling when faced with negative emotions?

A: No, I haven't. I think I'm a little anxious but I'm not at the point where I'm going to see a psychologist, I mean I'm capable of taking care of myself, I'm able to sort of gauge my own mental health. I think I'm just a little bit more stressed out than my peers, which is not a big deal

Q: Do you think public interaction design like playful device in the Uni can help you release negative emotions?

A: Well, that sounds like a good idea. I'd love to try it if I get the chance, but I want it to be easy to manipulate so I don't make a fool of myself. I mean I'm actually a very face-conscious person and I don't like to do anything out of line in public

Q: What feature do you think this device should come up with?

A: I don't know. Maybe a light show? Games? I hope it will be interactive but not too difficult to play around with.

Qualitative Analysis – Persona



Name: Jack

Age: 26

Computer Engineer

Sydney

"if you are curious, you create opportunities, and then if you open the doors, you create possibilities.."

ABOUT

Jack is a diligent boy, he cares about his grades very much, so he works hard in school for most of his college life, which makes him feel pressure from time to time, but he is used to pressure already, he thinks pressure should be a part of life. In his spare time, he will listen to music and watch movies. He is curious about new things and willing to participate in various activities. Although he is very busy every day, his optimistic and diligent character enables him to solve most problems in his life

♥ LIKES

listen to music
watch drama
Play pc games

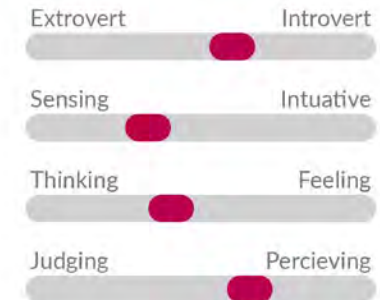
☹ DISLIKES

Social phobia
play sports

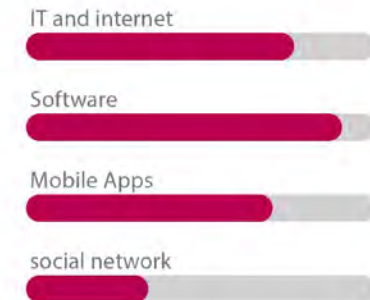
GOALS

- Get good marks for the final year
- Make some friends in this semester
- Find a full time job in 2 months
- Mabe data with a girl if possible

PERSONALITY



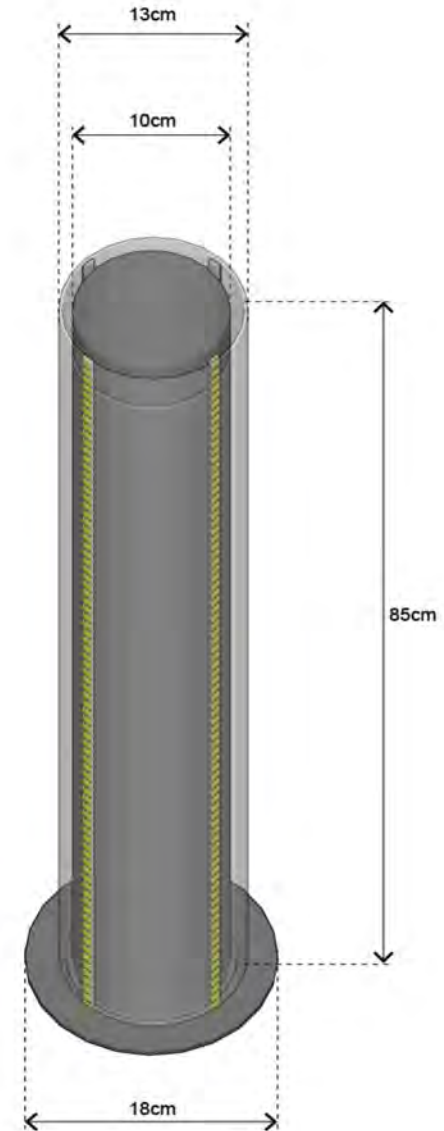
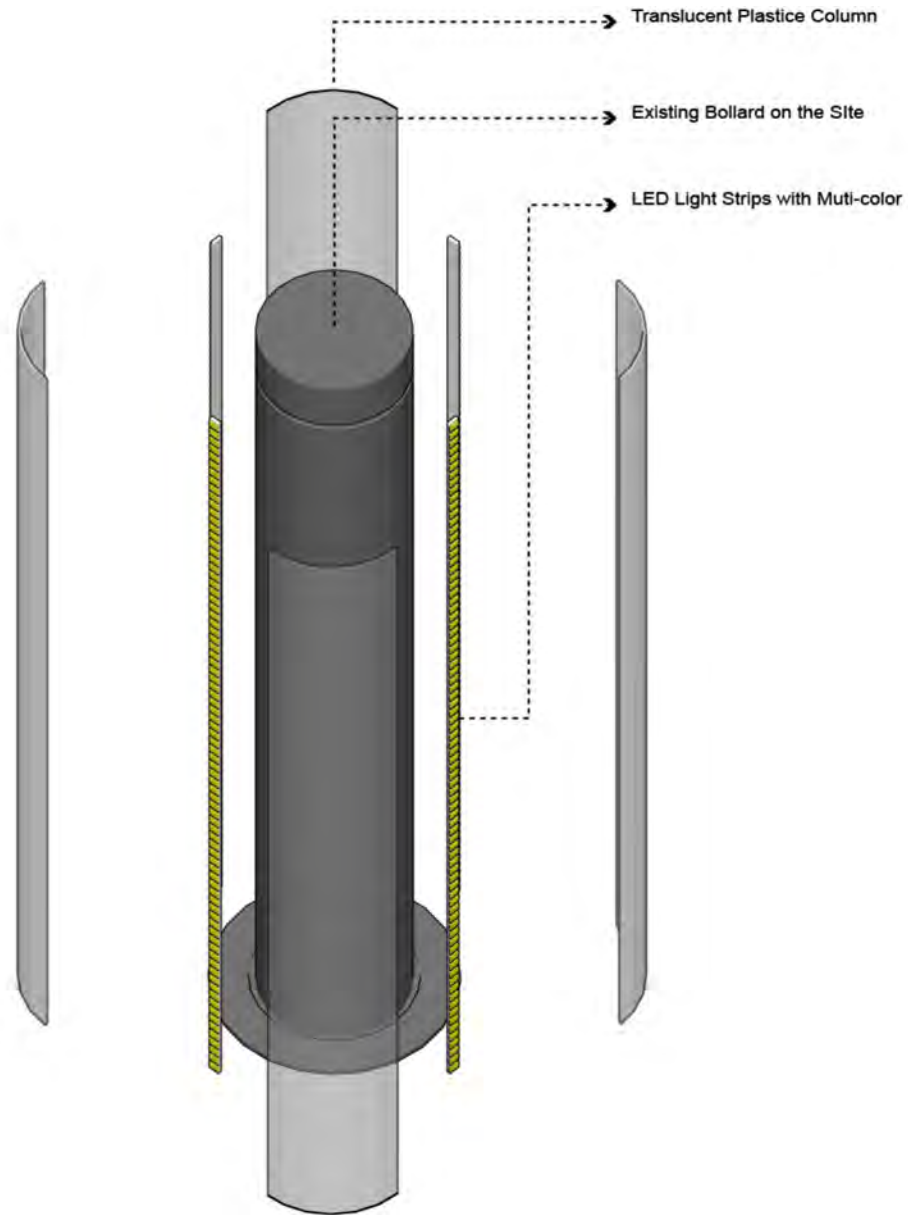
TECHNOLOGY



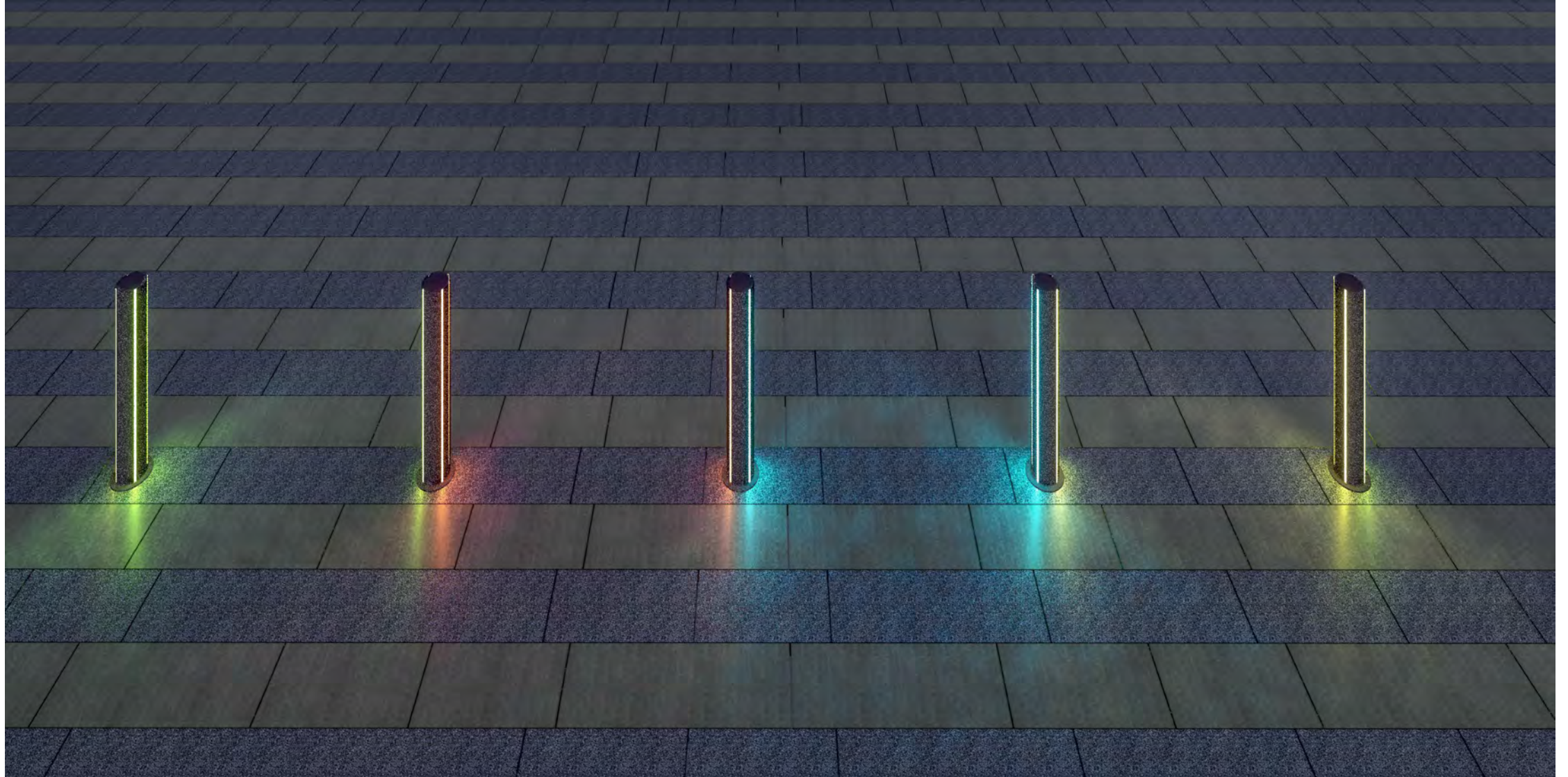
FRUSTRATION

I think I am not good at communicating with people in most cases. I feel social phobia sometimes.

Prototype Design



Prototype Design



Prototype Design

