# IM3080 Design and Innovation Project (AY2022/23 Semester 1)
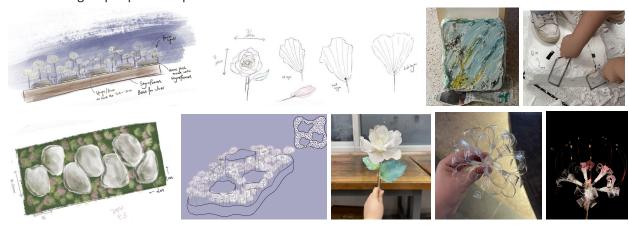## Individual Report

Name: Koh Jiahui

Group No: 7

Project Title: Flowerescent

## Contributions to the Project (1 page)

- Deciding on what to do, the objective, the message to convey and how to convey it
- Coming out with sketches, design of flower and layout, theme, storyline and a few flower prototypes
- After deciding on the design – spider lily, researched and test out ways to make it and came out with the first prototype with Siying. We tested out different materials and designs for flowers.
- Taught the other members of the design team on how to make the flowers such as the dimension, materials to use, how to heat and curl properly, and sticking it together.
- Mass production of flowers with the team
- Did most of the curling with Siying as it's harder to control and as we had experience while doing the prototype.
- Did most of the sticking of stamens with help of others helping to cut the fishing line into equal lengths.
- Do quality checks of all flowers and flower maintenance
- Testing out shapes and colour combinations of layout (stone and base)
- Painted base and stone and mark out the location of the flowers
- Shaved the stone and assisted Wei Jie and Siying in shaving the base
- 29 drawings of how the light effect gonna be like and Siying collate them and make it animated
- Assist in assembling LED into flower tubes
- Did group report and poster with the team



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# Reflection on Learning Outcome Attainment

**Reflect on your experience during your project and the achievements you have relating to <u>at least two</u> of the points below:**

        (a)  Engineering knowledge
        (b) Problem Analysis
        (c) Investigation
        (d) Design/development of Solutions
        (e)  Modern Tool Usage
        (f)  The Engineer and Society
        (g)  Environment and Sustainability
        (h) Ethics
        (i)  Individual and Team Work
        (j)  Communication
        (k)  Project Management and Finance
        (l)  Lifelong Learning

**Points 1&2: (d) Design/development of solution and (g) Environment and Sustainability.**

Our topic is based on plastic wastage and upcycling, throughout this project, I have realised how much we are wasting every day and how much impact it has on the environment. While coming up with the design, I'm always thinking of ways to portray our ideas to the audience and how to raise awareness. How to make an impact on the audience? Just telling them the that there is a lot of plastic waste and that people have to start doing something about it is not enough. We have to incur some kind of feeling in them, not just knowing but feeling it, that's the beauty of an artwork. But the very first thing is that the artist has to feel strongly about it in order to convey that feeling to others. I started to talk to people around me about their perspectives on wastage and recycling; I started to research the topic and find artworks about it; I started gathering materials and thinking of their potential and possibilities. Upcycling is indeed a beautiful way to turn 'trash' into treasure, everything that seems useless can be transformed into beautiful things, we decided that this might be the best way to convey our message. To develop this project, we need a clear objective, on what we want to convey and how to convey it, we need drafts and sketches to visualise how it will look, we need plans and a list of materials and execute the plans step by step. We faced many problems like coming up with a design that is stunning enough to incur a feeling in the audience, a solution that is not just pretty but meaningful. We came out with prototypes of flowers, but it only looks pretty as an individual but not as nice when there are 40 of them, it has to be feasible to do and easy to gather material. Also, what kind of materials we can use, that heat up evenly, curl well, looks pretty and is recyclable. After this project, I gained a lot of insights about the environment and sustainability through my research and especially through gathering materials and designing with the audience in mind. I'm more efficient in designing processes as well and coming up with solutions to whatever problem we face.

**Points 3&4: (i) Individual and teamwork and (j) Communication**

Part of the development of the solution is teamwork and communication while part of the design team's responsibility is to communicate with other teams (light and sound) as we have to assemble everything and ensure everything works well. On top of that, within the design team, we have to collaborate well. There is no right and wrong with design and everyone has their own opinion, so how we can come out with the best solution and ensure that everyone's idea is heard? We had a common group chat within the design team and had group meetings within ourselves, we do our own research and bring our ideas to meetings and share them with each other. We share our ideas and discuss all pros and cons and analyse the feasibility of it. It is a tough decision to come out with the best design so we came out with a few choices and presented them to the rest of the group for review and opinions. For individuals, It is very important to put in effort and time to give quality work and keep to deadlines as well as updating each other on progress. After design and prototype are the mass making of flowers. So, how to solve the problem where everyone has very different aesthetics? All the flowers look so different! We tried splitting our work like an assembly line, splitting the workload, each person doing a few full flowers, fixing a standardisation, giving everyone dimensions and giving them samples to refer to and double-check each other work. To summarise, communication is key! Always voice out any ideas and objections you have! I used to find it hard to reject people and raise my thoughts on other people's ideas but this project really made me realise the importance of it as coming out with the best solution is our top priority. But I also tried my best to hold back any harsh comments and just point out the problems in a logical way with evidence to back me up to ensure smooth communication. I also learnt to accept different opinions and take a step back so as to achieve a balanced solution with further discussion. We are all from one group with the same objective, it is really important to talk it out and learn to accept different opinions. We really have to understand each other art and working styles, schedules, ideas and motives like why they give this idea, how it benefits our project, whether is it feasible and try to understand each other's perspective. It is a tough process but after this project, I believe I became a more effective team player.