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

Name: Lim Yin Qi

Group No: 7

Project Title: Flowerescent

Contributions to the Project (1 page)

- Came up with ideas for new concept.
- Curation of different materials that could be used for the project.
- Researching on possible methods for creating the flowers .
- Created prototype for possible flower.
- Went to the Night Festival to do some research and get inspiration.
- Helped with purchasing and collection of materials required .
- Handmade 10 plastic flowers.
- Drew the outline of the base shape of our foundation.
- Since the base is made out of 2 pieces of polyfoam, I helped to stick the 2 pieces together.
- Painting of polyfoam base and plywood base.
- Help with the editing and presentation of slides.
- Handled some logistics such as booking of lab, seeking approval for purchase and claiming, etc.
- Photographing/Video graphing the creation process.
- Help to maintain open communication between everyone as issues and differing opinions would always come up.
- Aided light team to hide wires in the polyfoam base.
- Participated in writing up the report.
- Made the poster background and helped write the abstract paragraph.

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

Point 1: Design/Development of solutions
At the beginning of our project, we had a lot of difficulty deciding on what idea we should carry out. We had plenty of ideas but because everyone had something to say, it became more difficult to decide on an idea. After much discussion, we decided to create an interactive stone path platform but the finalising of the project did not happen within 1 meeting. Due to limitations with tools, materials and space, it took more time and changes for us to reach the final design. For instance, because of how much effort and time it was required to create a flower, we had to reduce the scale of our project to make it more manageable. Additionally, because we reduced the scale of our project, it did not seem fitting for us to continue the original plan of having steps. Thus, we changed it to a pathway. Another issue that happened was the need of preventing the wires from touching the floor. This was where the plywood base came into play. There were many suggestions on how we could elevate the polyfoam base such that the wires would not be touching the ground and how we could hide the wires, etc. Everyone was a little caught of guard about the elevation of the polyfoam base as it would need to be able to support the weight of a human. Thankfully a better suggestion of digging into the underside of the polyfoam base to hide the wires was brought up and although we still had uncertainties and worries about how it will go, it was the best idea we had. So we trusted each other and proceeded with that solution. Changes like such happened during most meetings but I am very glad that we managed to solve every challenge faced successfully.

Point 2: Communication
Our team split ourselves into 3 sub-groups, Design, Sound and Lights. While we do break off to focus on our own responsibilities, it was still very important to keep communication between all groups. We struggled a lot in the beginning because we all were still trying to grasp on what we should do. Being in the design group, while the other 2 groups focused on the codes and hardware of the sound and light, we were responsible for how our project would look like, where would we place the hardware, how would we hide the hardware and were there any requirements the sound/light group required. There were many considerations to be made and it could not be made within just the design team. The design team had to consider the elements of the entire project and understand what was needed from the sound and light group as well. Thus during the project, it became a little messy because there were so many people and it was not always easy explaining our ideas with words. There were many occurrences when some people would understand the problem/idea, while

others did not. Other times when there were many ideas for solution but we could not tie down on 1 solution. What I did to help manage all the different expectations was to reach out and allow everyone to openly share their thoughts and opinions so that we can all see their perspective. Thankfully, my teammates was able to compromise with each other and have realistic expectations with the limitations we have. Additionally, it was even more important to make sure that everyone was on the same page. Every after big discussion, I would always try to conclude and make sure that the solution/decision was final.