Group management records:

Meeting 1

Date	04/02/2025 17:00
Attendance	Coco, Jocelyn and Omar
Discussion	Concept ideation, simulating plant communication and the effects of the messages based on user interaction. Message examples include danger, not enough water, wind. For the outcome messages can be shown travelling through the 'roots' to each plant with LEDs. Then the plants can simulate the result of the message. As evidence goes against the wood wide web, we want to look at MCN (Mycelium Connected Network) specifically in mushrooms. The parallels between mesh network topologies and these natural occurrences are a point of interest. Want the users to directly interact by sending the messages to the plants themselves either through an app on their phone or an interface part of the installation. Materials needed for bionic flowers, metal wire, tissue paper, clear caballing, programmable LED strips, motors. PVA Glue. Select 5 types of fungi: • Stinking corpse flower Finish Flower Prototyping by week4 • Test methods and ones that aer easy can be additionally made to decorate the area
Progress Updates	N/A
Tasks assigned	Coco: • 3 network inspirations • Basic Design, Concept art for plants (mini animations)
	Jocelyn: • 3 plant artwork inspirations HCI • Project concept • Sketches for installation space layout
	Omar: • 3 bionic inspirations • Goals (technical outcome, impact) • Target audience research

Links	Tutorial 4 Bionics4Education – Inspiration from the plant world – The Bionic Flower Mushrooms May Communicate With Each Other Using Electrical Impulses | Smithsonian Fungi may not think, but they can communicate - Ars Technica Where the 'Wood-Wide Web' Narrative Went Wrong Robotic Flowers - YouTube Swarm Garden brings robotic flowers to life - Princeton Engineering

Meeting 2

Date	10/02/2025
Attendance	Coco and Jocelyn (Meeting with Yadira) 12:00
Discussion	Discussed feasibility of our outcome. • Made the decision that the uses will actively participate with the sensors to control how the flowers react, rather than a graphical user interface. • Discussed supplies that need ordering, and the list has been sent to Alice. • Y – mentioned giant flowers made from crepe paper. • The location for the presentation of our outcome is not yet decided but we will be updated as soon as she knows. Potentially the rotunda.

Meeting 3

Date	17/02/24 16:00
Attendance	Coco, Jocelyn and Omar
Discussion	• Spoke to Alice about ordering craft components as the motors have already been ordered. • Spoke to ross about 3D printing signs, buttons etc. Using PusaSicer software where files must be saved as an .stl file. Also must enable 3D printing toolbox on blender so that the design is watertight and solid. • Spoke to Jacob in sculpture studio. We have organised an appointment for next Friday to look at materials. (Must bring a plan and design). Next weekask about the ceramics printer. QUESTION SECTION) • Spoke to E-textiles, can email Gillian (galt1r23@soton.ac.uk) plan. Shes can help with domestic embroidery and conversation with textiles. They have an electrode embroidery machine.

	• Alice – resin is heavy, instead use sheets of acetate (clear coloured plastic). Sheets of conductive material, conductive thread (sew led in fabric on water soluble material. For embroidery.) even sew thick wool then put the LED on top (OPEN QUESTION SECTION). • Idea – Flower projection, showing different colours for different stages of life.
Progress Updates	• Initial Flower designs are completed. • Initial inspiration points are selected (J & C need to finish writeup, O needs images) • Need to send list of materials required to Alice (End of Next Week)
Tasks assigned	Coco • Finish initial table for designs of flower. • Animation to demonstration LED movement between plants • Sv iii • Research and designs for Light, Moisture (Inclusive of signs and buttons) Jocelyn • Writeup for UI references • SV i • Research and designs for Sound, Air Movement (Inclusive of signs and buttons) Omar • Flowcharts demonstration interaction between sensor data and robotic flowers for each resource type • UI Flowchart for Gamified Messages • Research into gamification theory + play • SV iv & ii • Research and designs for Nutrients and Motion. (Inclusive of signs and buttons)
Links	https://meredithwoolnough.com.au/blog/2021/9/28/insider-feature-how-embroidery-comes-to-life-with-water-soluble-fabric

Meeting 4

Date	25.2.24
Attendance	Coco and Jocelyn
Discussion	Trialling different methods to make the petals.
Progress Updates	
Tasks assigned	Continuation of previous research and design tasks assigned.
Links	https://learn.adafruit.com/flora-rgb-smart-pixels/add-more-pixels https://forums.adafruit.com/viewtopic.php?t=53636

Meeting 5

Date	28/02/24
Attendance	Coco, Jocelyn and Omar (Jacob – Sculpture Technician)
Discussion	• Could potential order stronger servo • Have conductive thread but should keep the LEDs separate to the flowers to enable more control. • Could 3d print and make casts but too heavy to motors, therefore more environmental decorations • Braid the wiring for a stronger structure. • Potential for fungi and mushrooms to link better to the MCN • Ask for a plywood base so we can screw in the flowers, spray paint, incorporate mushrooms and moss. • Organise a sewing machine induction and purchase materials from their online shop. (Using water soluble material with heavily embroidered thread to sew the neo pixels into) • Ask about purchasing foam, to build structure of environment. • To make the environment more cohesive will be including plants made from other materials, weight doesn't matter as it isn't motorised. Incorporate moss etc. • Look at whether flowers are affected by the mcn.
Progress Updates	• Collected a sheet of wood from Jacob for the base of the installation. Drawn out the design for where the material needs to be cut, and the layout of the robotic flowers in order to conform to design ideas.
Tasks assigned	Continuation of previous research and design tasks assigned.

Meeting 6

Date	13.3.25
Attendance	Coco, Jocelyn and Omar
Discussion	Organising the presentation and which elements each of us will be completed. Completed our sewing induction and now can use the machines when required. Spoke to Jacob we will be meeting him tomorrow to figure out materials for the flower's mechanics.
Progress Updates	- Collected an LCD screen. - Presentation is majority done.
Tasks assigned	Coco - Reading - Develop paper prototype for more layers

	Omar - Reading Jocelyn - Reading - Initial Graphics design for user interface. - Design for Environment

Meeting 7

Date	28.4.25
Attendance	Coco, Jocelyn and Omar
Discussion	We need to visit Jacob and ask for 3d printing aspects and sticks. (probably Thursday in the lunch break). For the final presentation on the 12th of May, we need to do all the theoretical work and finish making the petals so we can start motorising them next week. Additionally, it says we need visual aids/Slides so we can develop on from our formative ones. (Make posters to go with our outcome/slides that the visitor can flip through). Need to order the materials for the board such as foam. Change the embroidery into scraps of rolled to put the LEDS on to it. Need to get white fabric to simulate the roots, shades of cream and pale browns. We went to the fabric store in the textile department, found green weaved fabric and cream tulle. So, we will do approximately 4 layers or so.
Progress Updates	The tasks assigned are what we are going to try and complete this week. Still need to complete Task 4 for the group.
Tasks assigned	Coco - 1 flower petals - ½ flower petals (do prototype drawing) - Sensor Research - for Light, Moisture - Light sensor
	Jocelyn - 1 flower petals - ½ flower petals - Sensor Research - Sound, Air Movement - Screen interface - UI Design - Organise Visual Aids
	Omar - Inspiration Writeup - Sensor Research - Nutrients and Motion - Code the LEDs - Write up of UI + Design

	- Potential for Sensor Research if completed alright.

Meeting 8

Date	2.5.25
Attendance	Jocelyn and Coco
Discussion	Looked at how the integration of the sign will be with the environment. Originally, we wanted to 3d print a stand for the sign in the style of Minecraft however due to time limitations we don't think this will be feasible. Therefore, we are going to embed the screen into foam on the board. In front of it there will be the four potentiometers to control each element. Spoke to Alice and the foam has been ordered to arrive next week. Spoke to Jacob, we reduced the size of the joints to approximately 5mm. We will test how they work when printed and then we will print another 34 more. So that there are 7 per flower. We also requested for the disks to be made.

Meeting 9

Date	6.5.25
Attendance	Jocelyn, Omar and Coco
Discussion	We will be coming in on Friday to start building. Visual aids: - Change the flowers slide to case files. - Concept (including MCN explanation), then user guide and how to use potentiometers etc. - Info about flowers - Info about the Sensors
Progress Updates	Visited Jacob regarding the 3d printing, he tried printing the joints at approx. 0.5 cm however it didn't work. Therefore, he is going to try scaling them up and printing the 35 out by Friday. But he said we need to come up with a backup option in case it doesn't work. Foam board has been ordered and should arrive mid-week. So that we can begin building the environment on Friday.

Meeting 10

Date	12.5.25
Attendance	Jocelyn, Coco and Omar

Discussion	Final Reflections on the project. Handed the questions forms to each group of students and Yadira for the user Testing.
Progress Updates	We completed our final presentations and have a partially working prototype. Unfortunately, the foam board never arrived so we had to improvise with creating structure, by using stuffing, cardboard and scrunched up paper. We also connected one flower to activate via a light sensor rather than a potentiometer like the other 4.
Tasks assigned	J – write a reflection on the project. Organise bibliography Upload to GitHub
	C – write a reflection on the project. Upload to GitHub
	O – write a reflection on the project. - Write up the answers and document the feedback - Photos and writeup for the neo pixels (prototyping section) - Week 4 Section 3&4