Sikaru Saathi

[Brainstorming and Making]

A little background of this lesson:

- Welcome to day six and seven of Sikaru Saathi Bootcamp! Throughout the previous sessions, we have been on a journey to learn about essential topics like e-waste, basic electronics, upcycling, and household component repairs.
    - Today is one of the most important days of them all because we progress from our learning phase towards the practical application of our knowledge. We will be focusing on the brainstorming process for the final project, and participants will have the opportunity to divide the work and plan their strategies.

Materials Required

Component Name	Number
Universal	
Speaker system (Optional) (Using this to play music when participants are working in stations)	1
Demo Projects	2-3
E-waste	
Per Group	
A4 papers	1
Pen	1
Whiteboard	1

Repair Kit	1

Repair Kit contains:

- Multimeter
- Soldering Kit (Soldering iron, Stand, tin, wax)
- Wire cutter
- Pliers
- Electrical Tapes
- Saftey gloves
- Saftey goggles
- Hammer
- Hot Glue gun
- Screw Driver set

Activities

Energyzer

- Pick a fun game that will allow students to get to know each other and play it with the students. We recommend games that require physical movement so that the students get energized.

Problem statement recap

- Facilitator recaps bootcamps problem statement:
    - It's the year 2200 and humans have abandoned earth. It has become covered with trash from products sold by powerful companies, and we ran out of resources to grow food, build buildings, and create the electronics that make our lives convenient. We now live in a rocket ship slowly traveling in the atmosphere, searching for another planet that can support life. WALL-E, a garbage collecting robot, has been left on Earth to clean up the mess so that humans can once again inhabit the plant. WALL-E is a curious robot, often playing with the electronics he discovers. WALL-E is alone on Earth so he frequently feels lonely. When he has free time, he tinkers with parts to try and create something useful to his life or to create a toy that can keep him entertained. WALL-E looks for useful electronic parts to add to his

inventory to invent new things. Help WALL-E by scavenging through junk to find parts and creating new inventions to keep him entertained!

- Facilitator informs the participants that in the previous sessions, they have gained knowledge on topics such as electronic waste, electronic repair, and fundamental electronics. The upcoming session will be dedicated to working on a project that aligns with the problem statement presented in the bootcamp.

Brainstroming

- Facilitators inform participants that they will be using the Brain Sketch technique for brainstorming.
    - The idea of brainstorming is to **focus on the quantity of ideas, not quality and to have crazy ideas too**
- Facilitator shows the brain sketch **Video** to participants and if necessary gives a demo as well.
    - Handout 5 cut piece of paper and a pencil or a sketch pen
    - Project 40 seconds in the screen and write/sketch a gadget in **one** piece of paper
    - Take 40 seconds to draw the idea
    - After 40 seconds are over, pass your drawing to your peer
    - Look at the idea that you received and draw a new idea
    - Perform this for next 4 round
- Now participants will discuss in peer and finalize 3 ideas that they would want to make as their final project and plan it in detail.
    - Now finalize 1 idea that they will be making to solve the problem statements and their final project
    - Tell participants a few things they need to be careful about while they finalize their project.
        - Time limit they will have
        - The level of challenges they might face while making the game
        - How relevant it is according to the prompt of the class.

Planning, Sharing and Task management

- After participants finalize one project idea, the facilitator asks to **share their final idea of the games to the class and take feedback on the ideas.**
- The facilitator can ask participants to divide the tasks in the team and make rough planning of today's session and write it down in the whiteboard of the progress.

Built

- Participants start working on their projects
    a. Encourage participants to go around the class and see what others are doing and ask them their progress

Demo Stall

- The facilitator needs to arrange a demo stall to showcase participants' projects for the exhibition.
    - Facilitator will show a demo stall to participants to give an idea of how their stalls should look like in the exhibition (with decoration, flyers, etc)

Sharing

- Participants choose 1 representative in their group who will rotate around the classroom and see other's projects.
    - While observing others' project participants have to note down answers to the following questions:
    - Things they liked about their project (At least one)
    - Things they have to improve on (At least one)
- Facilitator will give the 1st feedback and pick other participants to give the 2nd.
    - If more participants are willing to give feedback teacher allows one more student to give feedback
- Participants will share their progress until now. While sharing participants focuses on mainly these points:
    - Which portion of their project is taking most of their time until now?
    - Which portion of their project is most fun and why?
- **Facilitator hands out one extra piece of paper for participants to write down materials required for the next session.**

Mock Presentation

- Ask participants to do a mock presentation and encourage participants to use these techniques on their presentation
    - Be loud
    - Be active
    - Eye contact
    - Practice, Practice, Practice
- Both the facilitator and participants give feedback to the presentation of the presenting group and ask them to work on the feedback that they received.