

## **Music Mixer Checkpoint - Dev Notes**

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### **What are you making?/Overview of the Music Mixer**

We are making a zen garden themed music mixer for our project. The **Zen Garden Music Mixer**, allows the user to be immersed in tranquility with a beautifully designed audio experience inspired by the peaceful aesthetics of traditional Japanese rock gardens. This ambient sound mixer combines nature's calming elements—rustling bamboo, trickling water, soft wind chimes, and distant temple bells—with gentle instrumental loops like shakuhachi flutes, koto strings, and meditative drones.

Perfect for meditation, reading, sleeping, or simply unwinding, the Zen Garden Music Mixer transforms your space into a sanctuary of sound and stillness.

### **How will it work?/Key Features**

Users can mix and layer each sound element using a serene, sand-raked interface that mimics a real Zen garden. Part of the sand garden features a section that spins and moves like a record player. Users will drag and place zen themed objects into the sand raked garden space—like lines of a sheet of music—each one representing a different audio stream.

### **What will you need?/Architecture**

- **User Interface (UI)**
  - A clean, intuitive layout for dragging and arranging audio tracks
  - Playback controls (Play, Pause, Stop, etc.)
  - Volume slider
- **Drag and Drop Logic**
  - Implement drag-and-drop support for importing audio files and rearranging them on the designated area
  - Visual feedback when dragging (highlighting valid drop areas)
- **Audio Processing**
  - Load in and buffer audio files
  - Mix multiple audio tracks in real-time
  - Apply basic effects (volume control)
- **Event Handling**
  - Respond to user interactions (clicks, drags, keyboard shortcuts)
  - Allow undo/redo for edits

### **Resources/Research**

The history and meaning behind zen gardens :

<https://www.bbc.com/culture/article/20220406-the-meaning-behind-the-japanese-zen-garden>

- Rocks and stones are vital to zen
- Zen was quickly embraced by the samurai, who identified with its emphasis on simplicity, self-discipline, and the importance of meditation
- Less is more
- “Uncluttered spaces help unclutter the mind, invoking a kind of meditative state”
- The abundance of empty space is a key concept
- Connectedness and connected with nature

How to build a zen garden :

<https://www.gardendesign.com/landscape-design/zen-gardens.html>

- Zen gardens are structured around seven guiding principles:
  - Austerity (Koko)
  - Simplicity (Kanso)
  - Naturalness (Shinzen)
  - Asymmetry (Fukinsei)
  - Mystery or Subtlety (Yugen)
  - Magical or Unconventional (Datsuzoku)
  - Stillness (Seijaku)

Zen garden elements :

<https://www.housebeautiful.com/lifestyle/gardening/a46354891/zen-gardens-japanese-culture-guide/>

- Elements of a zen garden :
  - A fence : "If there's no enclosure or fence around it, it's difficult to focus," says Torii.
  - Blank spaces, which allow for contemplation
  - White gravel, which can be raked into swirling patterns (or not)
  - Rocks, if you wish
  - Low-growing plantings, if you wish

## **Task Delegation**

**Jo Muncaster :**

- Set up GitHub repo with folder structure
- Wrote up dev notes
- Developing/Coding

**Amy Armstrong :**

- Put together mood board
- Set up visual design board based on design choices made together
- Developing/Coding

**Together / Both :**

- Research on theme
- Decide on colours, typography, overall styles, icons, and sounds
- Source audio files
- Create page layout
- Validate code
- Art assets (background, icons, etc.)