

Beatogether

專題編號：107-CSIE-S023

執行期限：106年第1學期至107年第1學期

指導教授：江佩穎

專題參與人員：104820008 蕭煒霖

104820026 熊雨萱

一、摘要

使用 unity 以及 max 程式撰寫，分別進行視覺的呈現以及聲音處理後製，引導使用者進行簡單的 Beatbox 教學及實際操作。

關鍵詞：unity、聲音後製、beatbox。

二、緣由與目的

有鑑於 beatbox 的領域相較於其他音樂較難商業化並且難以學習，通常以社團及少數音樂人為主要文化傳播管道，此企劃係自北科口技社社員發起，希望可以透過簡單明瞭的指引，加上模擬專業聲音效果器的互動裝置，推廣 beatbox 文化。

三、研究報告內容

使用 Unity 撰寫程式作為裝置，如圖 1 可見當圖形到達觸發區時，玩家要發出聲音，裝置會幫玩家所發出的聲音疊加效果器，然後會進入 loop 狀態，重複播放剛剛強化過的聲音。

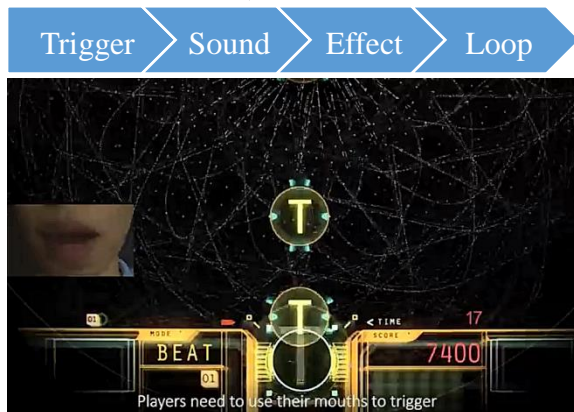


圖 1. Trigger

將 unity 做好的功能採用投影的方式，將畫面呈現在桌面上，以三人一組的方式進行遊玩(如圖3.4)，分別有五種圖示產生(如圖2)，當不同圖型到觸發區時，玩家根據發出 B、T、K 聲音即可進行簡單的 Beatbox 操作。



圖 2. Sign



圖 3. BEAT、BASS、SOLO



圖 4. Three regions


The screenshot shows a video player interface with a lecture on the 'startwindow' module. The video frame displays a complex circuit diagram with various components like 'startwindow', 'open', 'base', and 'beat'. The diagram includes logic gates, flip-flops, and data paths, with annotations in Chinese explaining the functionality of different parts of the circuit.

[illegible][illegible]

The image displays a collection of 15 icons representing different user profiles, organized into a grid. The icons are categorized by four main traits: ID, friends, single, and skill. Each icon is a stylized representation of a person with various symbols indicating their attributes.

- ID:** Profiles with a single ID card, a list of achievements, a recording button, and a list of achievements.
- friends:** Profiles with a list of friends, a list of friends, a list of friends, and a list of friends.
- single:** Profiles with a single status, a single status, a single status, and a single status.
- skill:** Profiles with a skill level, a skill level, a skill level, and a skill level.

A screenshot from the game '235 COMBO'. The top left corner displays the score '235 COMBO' in large, bold, yellow letters, with '21K 500,000' below it. The top right corner shows a pause button and a level indicator 'II'. The main area is filled with a dense, chaotic explosion of gold coins and green particles, radiating from a bright yellow-green center. Below the explosion, a Bitcoin logo is visible, consisting of a yellow circle with a black 'B' and two green dots. The bottom left corner features the text '235 COMBO' and 'PERFECT' in a stylized font, with a small '100%' indicator. The bottom right corner shows a large, dark grey rectangular area, likely a button or a placeholder for another element.



2