Clickey Blinkers

Game Description & Rules

Color and sound memorization game where you have to remember the pattern of lights combined with sounds (similar to simon says). There are 2 buttons corresponding to a sound and light (so that those who may be hard of hearing or cannot see the colors clearly will also be able to play). After each level, there will be a tracker clarifying what level you're on. If a level is passed, the player would level up. If a level is failed, they can continue to play up to three times. If they continue to fail with a tracker of three times total failures, the game will restart and the switch will have to be flipped to start the game again.

User Inputs/Outputs Definition Sheet

Outputs:

Lights - shows certain colors depending on what is happening during the game

Sound - Makes a low or high pitch depending on what button needs to be pressed (there will basically only be 2 noises coming out)

Serial Monitor - prints the level the player is on

Inputs:

Left & Right Buttons - will determine if the person has pressed the right button corresponding to the sound & color that has been presented.

Switch: turns on/off the game

```
                        ┌──────────────────┐
                        │ Switch (turns on │
                        │  game) / Start   │
                        └──────────────────┘
                                 │
                                 ▼
                  ┌──────────────────────────┐
                  │ Play a sound and blink a │◄────────────┐
                  │ color (there are 2 sounds│◄──────────┐ │
                  │ and colors to play       │           │ │
                  │ randomly)                │           │ │
                  └──────────────────────────┘           │ │
                                 │                        │ │
                                 ▼                        │ │
                  ┌──────────────────────────┐            │ │
                  │ delay 200 + time to play │         ┌──┴─┐│
                  │ out all colors/sound     │         │ no ││
                  └──────────────────────────┘         └────┘│
                                 │                       │   │
                                 ▼                       ▲   │
                            ◇◇◇◇◇◇◇◇                    ◇◇◇◇◇◇◇   ┌──────────────────┐
                          ◇ Did the  ◇                 ◇ is the◇  │ decrease         │
                  ┌────┐◄◇ player    ◇               ◇ level a ◇  │ light/sound      │
                  │ no │  ◇ press the ◇               ◇ multiple◇──────►┌─────┐     │ delay (makes it  │
                  └────┘  ◇ button    ◇               ◇ of 3?  ◇       │ yes │────►│ faster)          │
                          ◇ within... ◇                 ◇◇◇◇◇◇◇        └─────┘     └──────────────────┘
                            ◇◇◇◇◇◇◇◇                      ▲
                                 │                        │
                                 ▼                ┌──────────────────┐
                  ┌──────────────────┐            │ Level count adds │
                  │ Player presses   │            │ one              │
                  │ corresponding    │            └──────────────────┘
                  │ button(s)        │                     ▲
                  └──────────────────┘                     │
                           │                      ┌──────────────────┐
                           ▼          Yes         │ Blink Pink and   │
                      ◇◇◇◇◇◇◇◇   ─────────────────►│ add a random     │
                    ◇ Was it the ◇                 │ color & sound    │
                    ◇ right button◇                └──────────────────┘
                    ◇ to be       ◇
                    ◇ pressed?    ◇
                      ◇◇◇◇◇◇◇◇
                         │ No
                         ▼
              ┌──────────────────┐
              │ Blink blue and   │           ◇◇◇◇◇◇◇◇              No
              │ add to failure   │──────────►◇ Have they ◇──────────────────►
              │ counter          │           ◇ failed the ◇
              └──────────────────┘           ◇ level 3    ◇
                                             ◇ times?     ◇       Yes
                                               ◇◇◇◇◇◇◇◇ ──────────────►
                                                    │
                                                    ▼
                                          ┌──────────────────┐
                                          │  Game restart    │
                                          └──────────────────┘
```