SMALL _ARTIFACTS LAB;

Light Game

Abstract

In this assignment, you will implement a simple 'light game' using the ESP32 and peripherals.

Description

Below is the basic requirement for the 'light game'.

1. Generate a random number at the beginning of the game.
2. The number represents the targeted ambient light intensity.
3. Play a simple melody to indicate the beginning of the game.
4. The player can now change the ambient light to approximate the target.
5. The buzzer pitch is continuously playing and always proportional to how close the player gets towards the target.
6. If the number gets closer, the buzzer plays higher pitch.
7. If the number gets further from the target, play lower pitch.
8. If the player reaches the target number within 10s, play a simple winning melody.
9. If the player loses the game, play a different melody.
10. Press a key on your keyboard to restart the game.

Delivery

There are two deliverables.

- Upload your code. You can put them in a zip file if needed.
- a quick video demo of the working game with an (unlisted) youtube video link.

Due Date

Wed Sep 25th, 11:59 PM EST

Last Modified Date: Sep 18th, 2024