Assignment 1 Disco!

You are assigned to a task to create a light and music controller for a disco dance club, free of charge. Due to the limited budget, you decided to implement it with a buzzer and WS2812. Your mission, should you chose to accept it (you have to accept it), is to control the buzzer and LED to show a special effect.

Basic requirements (80%)

Use the template code provided by us and make any necessary modification. Refer to the template code instruction for more information.

1. Successfully downloaded the code to the board.

2. Offline demo at our lab at Hall 8.

3. Blink LEDs in certain patterns.

4. Use the buzzer to keep playing a song.

You are encouraged to (20%)

1. **Be creative**. i.e. blink the number of LEDs according to the pitch.

2. Implement some **user interactions** with the button.

3. Demonstrate a good understanding of **software engineering**. i.e. make your code more developer friendly with suitable variable name, comments, modularity, etc.

4. Demonstrate exceptional **programming skills**, show off something that is not taught by us.

Bonus

Use button to control the playback. Single press to pause and play, double press to switch songs.

Submission

The submission is in two parts:

1. You **have to demo your work** offline at our Lab at Hall 8.

2. Zip your code (without the build directory) and **submit it on Canvas**.