Abstract:

This project creates a cube or dice that when rolled tells a computer which side it has rolled onto via low-energy Bluetooth to command a musical response through MIDI. The microcontroller used was the Seeed Studio XIAO nRF52840 which has BLE, an accelerometer, a battery controller, and many other sensors that could be useful to future students. This microcontroller is only 20mm by 20mm, allowing the cube to be only one inch. The microcontroller senses which side it is turned onto with the accelerometer and communicates that to the computer where a python script turns that data into MIDI output.

Transcript Title:

Music Randomization Dice Project

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