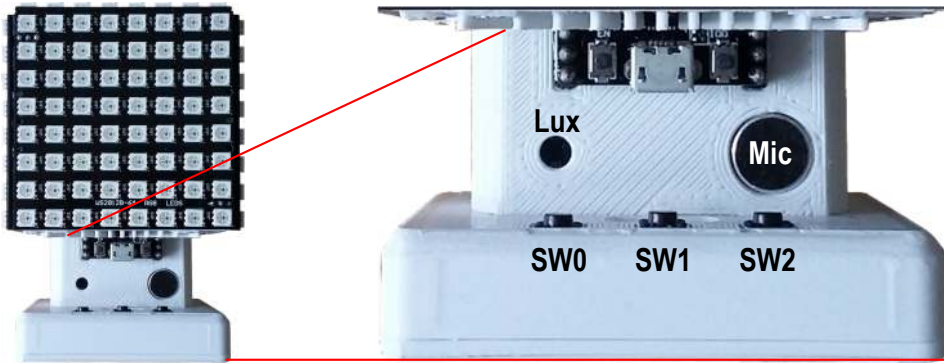


Cube 8x8 Demo – Functions



Functions:

- On power-up it enters inactive state after a double rainbow burst appears.
- SW0 toggles the cube ON/OFF. When ON buttons SW1 and SW2 come into play.
- Single presses of SW1 **>** or SW2 **<** will cycle the cube through its various modes of operation.
- The first mode is a white lamp, the second is a mood light, the third and beyond are patterns.
- In white lamp mode, long presses on SW1 and SW2 will adjust its brightness, down/up.
- In pattern modes, long presses (>1 sec) will take you to the first **|<** or last **>|** mode in the sequence.
- In pattern modes a long press (>2 sec) of either SW1 or SW1 will enter into random pattern modes, in which a pattern will be displayed for 10 seconds.
- If SW0 pressed for ≥ 3 sec then meltdown -> REBOOT.
- The 3-axis motion sensor is not visible, but is constantly being read by the multitasking code and used to update readily accessible global variables.

Tech:

- ESP32 80MHz Dual-core micro
- 321 programmable RGB LEDs
- >30 fps refresh rate
- Graphix library included
- Lux, microphone and motions sensors
- Desk light, mood light and patterns
- User selection stored in EEPROM memory

Mood:

- By default, mood mode will turn the cube blue, but it is possible to select different colours as follows.
- Whilst in mood mode, momentarily place you finger over the **Lux** sensor opening in the case.
- This sudden drop in ambient light will initiate the mood colour adjustment mode.
- This special mode starts with red adjustment and the top face will display a letter **'R'**.
- You can now use SW1 and SW2 to reduce or increase the red component of the colour.
- Pressing SW0 will now cycle through the colour components, the next one being green **'G'**, then blue **'B'**, then back to red.
- As before the SW1 and SW2 buttons adjust the strength of these colour components.
- Once you are happy with the new colour, so exit this adjustment mode, once again place your finger briefly over the **Lux** sensor.
- The new mood colour will be remembered and used for that more from now on.