**Sound Display and Entertainment System on Basys 3**

A picture containing text, electronics, circuit

Description automatically generated

* **MEMs microphone:** This analog-to-digital device will capture audio signals from the surroundings and provides the data to you in a digital format.
* **OLED RGB Display Screen:** Information can be displayed on this 96 x 64 bit display screen with 16-bit color resolution.
* design a linear volume bar with 0 to 15 levels. On a black background, the bars should be colour-coded in green, yellow and red to indicate when volume is low or high.
* **SW0 is 0:** mic\_in shown on 12 LEDs **SW0 is 1:** Peak intensity shown on 16 LEDs …
* **SW3, SW4:** 1 pixel thick border if 2’b01, 3 pixels thick border if 2’b10
* **SW5, SW6:** Colour theme …

A picture containing graphical user interface

Description automatically generated