



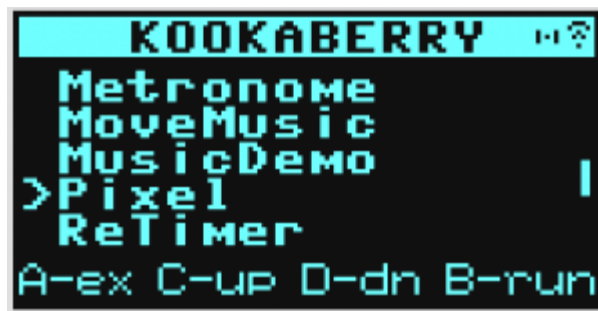
Pixel App

This app illustrates how the colour pixels on TV and device screens work by varying hue (colour) and luminance (brightness) on RGB LED's.

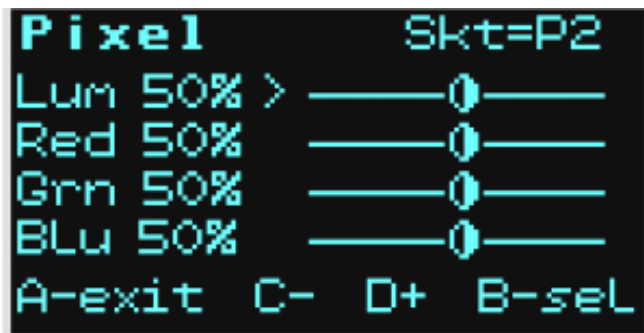
Directions

Setup

Plug an [RGB LED](#) into P2; navigate to the Pixel app on the Kookaberry's menu, and press Button B to run



Running the app



What is showing on the Home screen?

1. **Top Row:** Name of app; Pin for connection of peripheral (P2)
2. **Second Row:** Luminance (Lum) slider to control brightness
3. **Third Row:** Slider to control Red intensity
4. **Fourth Row:** Slider to control Green intensity
5. **Fifth Row:** Slider to control Blue intensity
6. **Sixth Row:** **Button A** is Exit from app; **Buttons C & D** adjusts sliders up and down; **Button B** selects slider to adjust.



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Using the app

Adjust the colour and brightness of the RGB LED by selecting the relevant slider using Button B. The screenshots below show 100% Red, Green, and Blue.

Learn all about colour mixing and how the RGB LED works by going to the [RGB LED app description](#)

Experiment with different proportions of RGB to make different hues.



How they are used in TV screens

RGB LED's are the individual pixel elements in colour screens on your devices and on TV's. Individually addressable RGB LED's are linked together in columns and rows and number in the millions in standard 4k LED TV's.

8,294,400 to be precise, because, in a 4K TV, there are 4,096 pixels across the horizontal dimension and 2,160 in the vertical.



For further information go to "[What pixels are and what they mean for TV viewing](#)" by Robert Silva for Lifewire