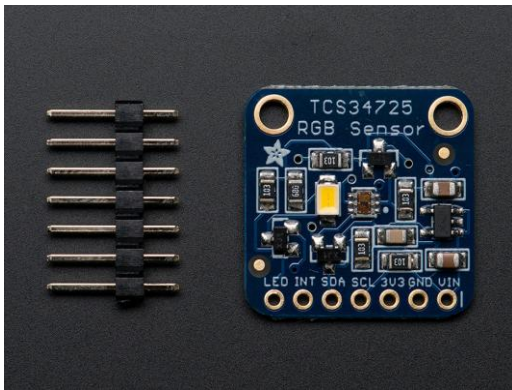




RGB Color Sensor with IR filter and White LED – TCS34725

PRODUCT ID: 1334



DESCRIPTION

Your electronics can now see in dazzling color with this lovely color light sensor. We found the best color sensor on the market, the TCS34725, which has RGB and Clear light sensing elements. An IR blocking filter, integrated on-chip and localized to the color sensing photodiodes, minimizes the IR spectral component of the incoming light and allows color measurements to be made accurately. The filter means you'll get much truer color than most sensors, since humans don't see IR. The sensor also has an incredible 3,800,000:1 dynamic range with adjustable integration time and gain so it is suited for use behind darkened glass.

We add supporting circuitry as well, such as a 3.3V regulator so you can power the breakout with 3–5VDC safely and level shifting for the I2C pins so they can be used with 3.3V or 5V logic. Finally, we specified a nice neutral 4150°K temperature LED with a MOSFET driver onboard to illuminate what you're trying to sense. The LED can be easily turned on or off by any logic level output.

Connect to any microcontroller with I2C and our example code will quickly get you going with 4 channel readings. We include some example code to detect light lux and temperature that we snagged from the eval board software.