Design of low cost flexible RGB color sensor


Design of low cost, high speed portable color sensor suitable for use in external light environment susceptible to disturbances is presented. The color identification is based on sensing Red (R), Green (G) and Blue (B) colors reflected from the object using an ambient light phototransistor. The RGB combinations are divided into eight colors. The color sensor does not need optical devices and color filters. It has capability to track eight different colors with 100% accuracy in a working distance of 5 to 10 cm in the presence of normal background illumination. It allows the sensor to detect various colors at different distance with only one calibration and does not require calibration with eight colors before its use in measurement system.

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