**BRICK SENSOR USING COLOUR SENSOR**

This project is used to separate the bricks of different color. In this project we are using a color sensor interfaced with the microcontroller. This color sensor identifies color and gives serial output of RBG value. It can identify 16.7 million color shades giving RGB value for the detected color. The detected color is identified as amount of three primary color values namely Red, Green & Blue with 8 bit accuracy for each primary color. Any color can be separated or combined into three primary colors Red, Green and Blue using the RBG values.

The sensor switches each primary color RGB, one by one and checks what intensity of color is reflected by the surface of detection. This reflected intensity is converted to 8 bit value. For example a RED surface will strongly reflect RED. While a Yellow surface will reflect RED and GREEN both. According to the induction principle of the three primary colors which create various other colors in nature, once the value of three primary colors is confirmed, the color of the tested object is known. Knowing the value of RGB helps people gain the color of the light which is projected onto the sensor since each color correspond to only one value of RGB.

**Applications**

· Color Detection & Sorting operations

· Process control to printed materials

· Ambience light detection / Robotics color detection

**Software and hardware tools:**

**Software tools:**

1. Proload
2. Keil compiler
3. Orcad

**Hardware tools**:

1. AT89S52
2. Lcd
3. Colour sensor
4. Adc 0808
5. Buzzer.

**Block diagram:**

