EE 251 - PROPOSAL FOR COLOUR DETECTING SENSOR CIRCUIT.

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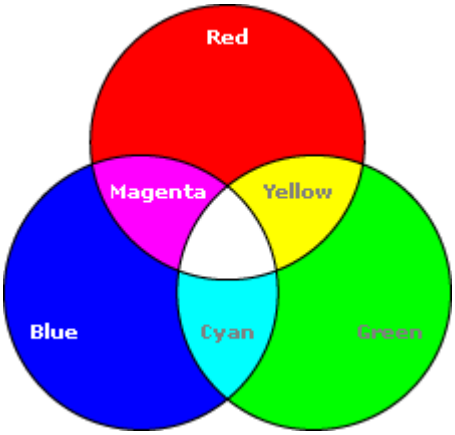
INTRODUCTION

The target is to design a colour sensor which can be used to recognize colours. It consists of 3 colour LEDs, which is red, green and blue.
Red, green and blue are the primary colours for additive mixing. Therefore using these main colours any colour can be recognized by checking their RGB value.

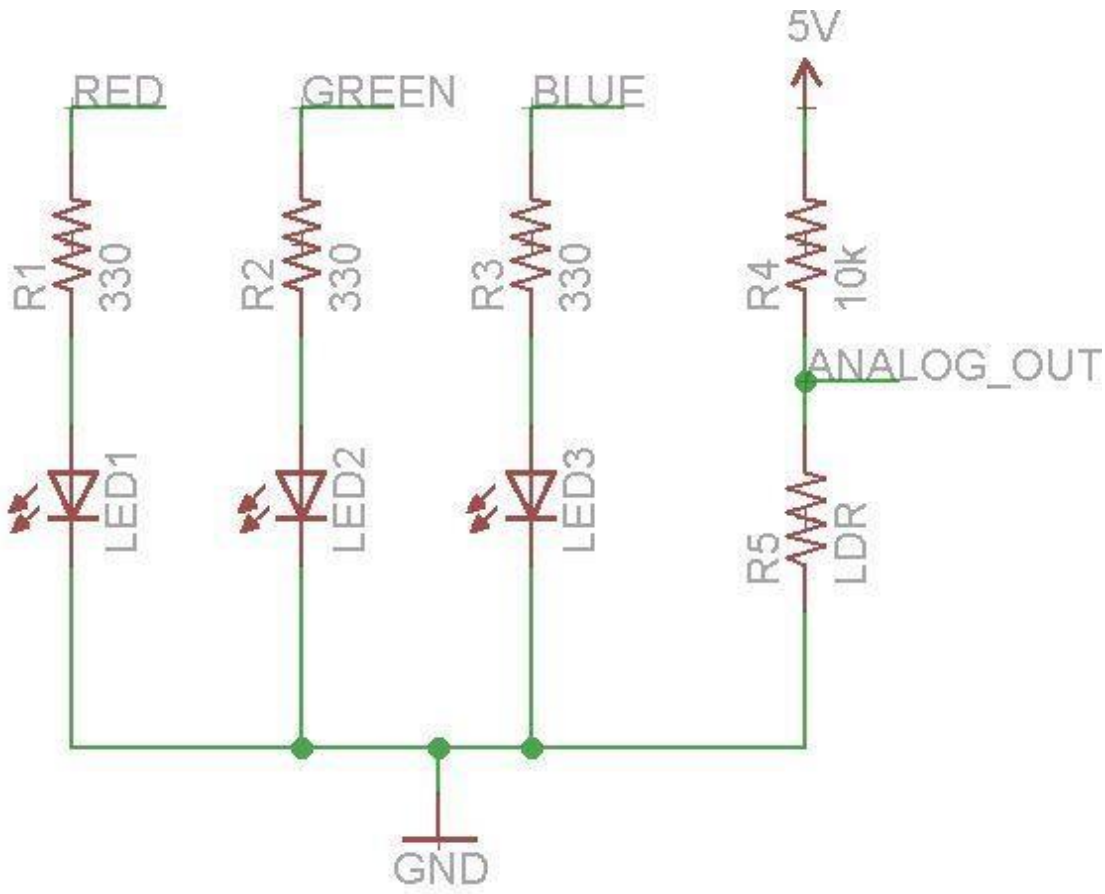


APPARATUS

- Red, Green, Blue LEDs.
- A LDR.
- Resistors.
- A Bread Board.
- Jump wires.
- A Arduino board.

METHODOLOGY

Leds are plased near the LDR in order to piche their refection of the light on the LDR. And the output of the LDR will be connected to the arduino board then the RGB values are measured.



First, the LDR has to detect the contrast between black and white surface. To detect the colour, each LED takes turn to shine onto the surface and the Arduino will read the voltage on LDR. After having the contrast in black and

white, now the LDR is ready to detect different colour surface. Again, the three LED, Red, Green and Blue will take turn and shine on the surface. Next, Arduino will read the voltage on LDR and do some calculations to get the colour value.

REFERENCES

https://howtomechatronics.com/tutorials/arduino/arduino-color-sensing-tutorial-tcs230-tcs3200-color-sensor/

https://www.google.com/amp/s/iamzxlee.wordpress.com/2014/03/05/colour-sensor/amp/