COLOR DETECTOR USING ARDUINO UNO

A MINOR PROJECT REPORT

Submitted in Partial Fulfillment of the Requirements for the Degree of

Electronics and Communication Engineering

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CERTIFICATE

This is to certify that the minor project entitled **COLOR DETECTOR USING ARDUINO UNO** that is being submitted by **M. Sai Kishore, R.V.L. Karthik, S. Tushar** bearing **Regd. No. 171FA05305, 171FA05329, 171FA05362** in partial fulfilment for the award of **III** year I semester B. Tech degree in Electronics and Communication Engineering to Vignan's Foundation for Science Technology and Research, is a record of work carried out by him/her under the guidance of **Mr. Ashish Kumar Thakur** of ECE Department.

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ABSTRACT

Color information plays an important role in the color image segmentation and real-time color sensor. White light is a mixture of three basic colors known as primary colors. They are red, blue and green. These colors have different wavelengths. Combinations of these colors at different proportions create different types of colors. When the white light falls on any surface, some of the wavelengths of the light are absorbed by the surface while some are reflected back based on the properties of the surface material. Color of the material is detected when these reflected wavelengths fall on the human eye. A material reflecting wavelengths of red light appears as red. The component used to detect colors is the Color sensor. In this project we are going to interface TCS3200 color sensor with Arduino UNO. TCS3200 is a color sensor which can detect any number of colors with right programming.

Figures

Tables

TABLE OF CONTENTS