

An Effective Solution for Color Blind People using Color Detection Model

Problem Statement:

Nowadays most of the people can be seen as a victim of Color Blindness that is incurable disease because of genetic disorder. It can be cured by some genetic therapy but it is very much costly. The problem of them is that these people are unable to differentiate between shades of color or when two colors are mixed together so it will be very difficult for them to see item's colors clearly. So the problem is how it can be analyzed without curing the disease.

Progress:

- Required modules imported
- Webcam set successfully
- Image fetched
- Generate its dimensions (pixels) in form of area
- Convert color of each pixel from BGR (python reads bgr instead of rgb) to its respective hsv color code
- Selected some colors (red, blue, green, yellow, orange)
- Select lower and upper range of each selected color in hsv format
- Noise removed using dilate function from image
- Finding of contours for each and every color
- Formation of rectangle of corresponding color around the object
- Detect and display color name and its respected HEX code if selected color found

Screenshots:



