

# Real-time Color Recognition with Mobile Phones

## Description

Color recognition process is automatic identification of color of the object. The ability to automatically detect the color feature has many practical applications. Recognizing color plays important role in license plate recognition systems [1] [2]. It can be also used clothing recognition and search systems for smart shopping [3]. In addition to the pictorial information, color vision provides spatial information that can simplify problems related to image segmentation and scene interpretation [4]. Furthermore, color recognition-based systems can be used as an assistive tool for visually impaired people (e.g. Altı Nokta Körler Derneği) and help them in their everyday life [5].

The **aim of this project** is to develop a mobile-based system that recognizes the color of an object in real-time. Extracting color features from the image sequence captured by the camera of the mobile device, the system will determine the color(s) of the object. The estimation will be based on 3 targets (Figure 1): (i) one single solid color, (ii) mixed color (e.g. a stripe pattern with two colors), and (iii) texture pattern (if a texture feature is dominant).

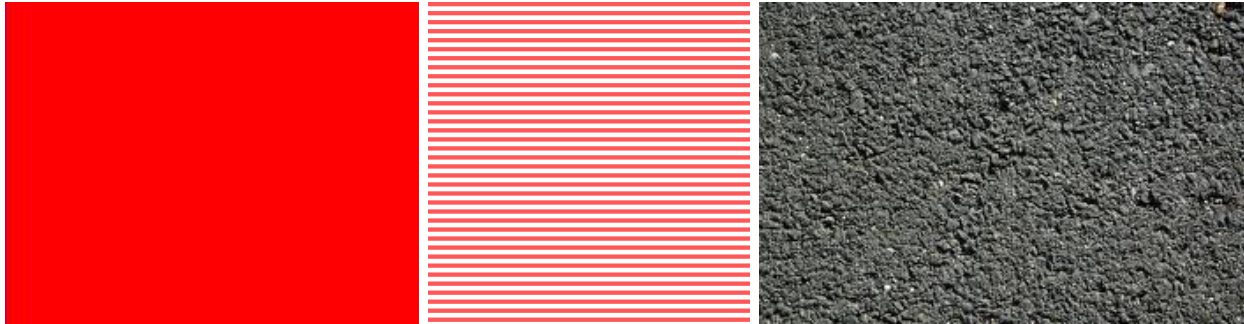


Figure 1: Target patterns: one single solid color, mixed color of 2 or more colors, and a texture pattern.

## References

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