

ABSTRACT

The eye is one of the most important human organs. Eyes function to recognize the first time the various objects that we meet by seeing it. But not everyone can use the eyes function perfectly. Some people can not use the eyes as they function. This is one of them caused by blindness. Today there are many people suffering from blindness or blindness especially blind cataracts. Dealing with the limitations and problems experienced by the blind people in carrying out their daily activities required a guide to help the blind.

The purpose of making this tool is as a pointer that can facilitate the visually impaired at the time of walking. This tool uses a camera sensor as a detector, then processed by Raspberry Pi and provide a sound sign if there is a barrier in front of it. This tool is expected to be a replacement stick for the blind who is able to provide anticipated obstacles object further.

The method used is standard pre-processing algorithm and Haar-Cascade method as object detection. Based on this final assignment, Raspberry Pi and Camera are placed on a tool that has been designed in such a way as to detect the color that is characteristic of a special object. Has a computational time range with an average of 4.5 seconds The camera can detect color objects well in the morning and afternoon.

Keywords: Blind, Raspberry Pi, Camera, Stick.