Abstract

The objective of the paper is to separate the objects from a set according to their color. This can be used in an industry where the objects moving through a conveyer belt can be categorized using a color identifying robot. The detection of the particular color is done through digital image processing techniques implemented using MATLAB. This project consists of a MATLAB based system and a VLSI part for controlling the mechanical movements. The
MATLAB based system detects the color and sends an indication to the FPGA via ZigBee. The FPGA decode the incoming signal and controls the movements of the robotic arm. The mechanical section consists of servo motors for the movement of robot ARM.

Reference

- Fast Colour – Independent Ball detection for Mobile Robots by Sara Mitri, Kai Pervolz, Hartmut Surmann, Andreas Nuchter in IEEE Transactions on Robotics Vol.25

Index Terms

Computer Science Wireless
Key words

Robotics

FPGA
MATLAB