

H.K.E SOCIETY'S
POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING
GULBARGA – 585102

(An Autonomous Institution, Affiliated to VTU Belgaum, and Approved by AICTE)



PROJECT REPORT ON
“OBJECT SORTING ROBOTIC SYSTEM FOR
INDUSTRIAL PROCESS”

Submitted to
Poojya Doddappa Appa College of Engineering, Gulbarga
(Autonomous Institution)

In Partial Fulfillment of the Requirement for the Award of the Degree Of

BACHELOR OF ENGINEERING
In
ELECTRONICS AND COMMUNICATION ENGINEERING

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2011 – 2012

ABSTRACT

The project deals with an automated material handling system. It synchronizes the movement of robotic arm to pick the objects moving on a conveyor belt. It aims in classifying the objects based on color (black/white) as well as on material type (metal/nonmetal) which are coming on the conveyor by picking and placing the objects in its respective pre-programmed place. Thereby eliminating the monotonous work done by human, achieving accuracy and speed in the work. The project involves sensors that senses the object's color and material type and sends the signal to the microcontroller. The microcontroller sends signal which drives the various motors of the robotic arm to grip the object and place it in the specified location. Based upon the color detected, the robotic arm moves to the specified location, releases the object and comes back to the original position.