

School of Engineering

Engineering Project (3317)

**DESIGN OF A VISION BASED ROBOTIC
SYSTEM**

FINAL REPORT

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Abstract

This report represents the final report of the project entitled Design of a Vision Based Robotic System. This project produces an autonomous movement of the robot with capability of various autonomous movement applied. The robot used a single camera sampling images known as Carnegie Mellon University (CMU) camera for its vision system that will recognize shape and colors of object. At the same time, it will track and follow the object and will also avoid from collision and keep the distance to make sure it will not collide with the object. The robot is controlled by using Microcontroller, and high level language is used as the medium to program the PIC. This project is capable to store data in real time and the method was implemented on a small robotic platform. To completed this project, a high knowledge of robotic and software development is required.