Computer Project I – Final Report

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***Abstract*—This is our abstract.**

I. Introduction

Overall, the project can be divided into four parts with certain aim and objectives:

1) Understanding the basic concepts of robot programming by working with an Arduino - that is, the *think-see-act cycle*. Reading and analyzing data from Range sensor and RGB sensor.
2) ROS Programming on Raspberry PI. Learning the structure that ROS provides and going through the beginner's tutorial.
3) Programming the robot to avoid obstacles. Then optimize the robot's performance both with respect to linear speed and collision avoidance.
4) Finalizing the code and testing the robot on an obstacle course.

II. Specifications

Specifications of the equipment used.

III. Design and implementation

Design and implementation of the system.

A. Part I

Part 1,

B. Part II

C. Part III

D. Part IV

IV. Experiment setup and results

V. Discussion

In this section of the report we will discuss some of the difficulties we encountered during the project. Again, we have divided it into the four main parts of the project described earlier.

A. Part I

Part 1,

B. Part II

C. Part III

D. Part IV

VI. Personal contributions

VII. References