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**THE KENYA POLYTECHNIC UNIVERSITY COLLEGE**

**DEPARTMENT: ELECTRICAL AND ELECTRONIC ENGINEERING.**

**PRESENTER: RONOH GIDEON**

**INDEX NUMBER: 401001066.**

**PROJECT TITLE: ROBOTIC PROXIMITY SENSING SYSTEM**

**COURSE OPTION: TELECOMMUNICATION ENGINEERING**

**COURSE CODE: 2082/207**

**SUPERVISOR: Mr. KITALA**

**EXAM SERIES: NOVEMBER**

**THIS PROJECT IS PRESENTED TO THE KENYA NATIONAL  
EXAMINATION COUNCIL AS A PARTIAL FULFILMENT FOR THE  
AWARD OF A HIGHER DIPLOMA IN ELECTRICAL AND  
ENGINEERING –TELECOMMUNICATION OPTION.**

## **PREFACE**

As a requirement for awarding of a Higher Diploma, it is a requirement to come up with a project. Having pursued a Higher Diploma in Telecommunication engineering, I thought it wise to come up with a proximity sensing system that would be used in making a robot that is supposed to identify the proximity of an object that is approximately ten meters away. It is supposed to follow a white line on a dark background. The system works on the basis of infrared radiation emitted from the sensors and upon hitting the target the time taken by the infrared signal to reach the target will be converted to mean the distance between the robot and the object, infrared signals are received by the receiver of the sensor and then taken to the microcontroller of the robot and the proper action is taken. This signal helps to estimate the proximity of the sensor hence sending a signal to the robot to stop the forward movement of the robot.

This booklet has been written several reference materials from which different information were retrieved.

I hope this book will be of much help to the reader and the people out in the industries using this system.