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FACULTY OF ENGINEERING AND INFORMATION

TECHNOLOGY

SCHOOL OF ENGINEERING

FINAL REPORT

FINAL YEAR ENGINEERING PROJECT 2002

Project Title : DESIGN OF A ROBOT TO DETECT MINES

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UNIVERSITY *of* NORTHUMBRIA *at* NEWCASTLE

Abstract

This report describes the design process and specifications of the prototype robot developed for the Final Year Engineering project titled "Design of a Robot to Detect Mines" done for the Electrical and Engineering Honours Degree of University of Northumbria at Newcastle (UK) through Sedaya International College (Malaysia).

The prototype robot is able to automatically navigate a terrain in search of mines. It incorporates a metal detector system, a mechanical obstacle detection, and the Motorola M68HC11 microprocessor and various other peripheral devices.

The project involves theoretical and practical engineering work with electronics hardware and software development in a variation of the C language- Interactive C- for the practical application of the prototype mine detecting robot.