ULTRASONIC DISTANCE MEASURING DEVICE

Kevin R. Asombrado
Dalton Jay T. Dayo
Cristy S. Ebuenga

A Project Design presented to the Faculty of the
College of Communication and Information Technology
In Partial Fulfillment of the Requirements for the degree
Bachelor of Science in Computer Engineering
Ramon Magsaysay Technological University
Iba, Zambales

March 2015

COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

CERTIFICATION

This project design entitled **"ULTRASONIC DISTANCE MEASURING DEVICE"**, prepared and submitted by Kevin R. Asombrado, Dalton Jay T. Dayo and Cristy S. Ebuenga in partial fulfillment of the requirements for the degree **Bachelor of Science in Computer Engineering**, has been examined and recommended for Oral Examination.

Thesis Committee

ENGR. RICKY S. BARRERA
Adviser

MENCHIE A. DELA CRUZ, MSIT
Member

ENGR. MARY JOYCE M. MYERS
Member

APPROVAL

Approved by the Panel of Examiners on Oral Examination on March 15, 2015 with the grade of _____.

ENGR. MARLON V. ALCANCES
Chair

ENGR. MARY JOYCE M. MYERS
Member

ENGR. STEPHEN LLOYD R. VELARDE
Member

ENGR. RICKY S. BARRERA
Program Chair, BSCoE

Accepted in partial fulfillment of the requirements for the degree **Bachelor of Science in Computer Engineering.**

MENCHIE A. DELA CRUZ, MSIT
Dean

Abstract

Ultrasonic Distance Measuring Device is a device that is capable to measure the distance of an object from the device using ultrasonic technology.

Ultrasonic sensors measure the distance in the sense that the direction of propagation as a sequence of echoes. The measurement is based on the time-of-flight of the reflected echoes. Then this sequence is converted to digital form and is evaluated and interpreted by the microcontroller. The device is able to measure distance within 10cm to 400cm. The ranging value is then displayed through the LCD Display.

The device can also be used for various applications for distance measurement such as automotive, civil, robotics and variety of applications depends on the use. Thus, one of the objectives is to build and develop the prototype of the distance measurement device. The importance of the project is calculating accurate distance from any obstacle that we want to measure with precise and fix measurement of low range distance.