

## REMOTE CONTROLLED ROBOTIC CAR USING TOUCHPAD COORDINATES

A Project Design
Presented to the Faculty of the
College of Communication and Information Technology
Ramon Magsaysay Technological University
Main Campus, Iba, Zambales

In Partial Fulfillment of the Requirement for the Degree Bachelor of Science in Computer Engineering

> by Ma. Cristina M. Salamanca Stephen Lloyd R. Velarde Tifanie D. Superar

> > October 2014

## Republic of the Philippines RAMON MAGSAYSAY TECHNOLOGICAL UNIVERSIT

College of Communication and Information Technology FEB 0 2 2015

Iba, Zambales



The study hereto attached entitled

## REMOTE CONTROLLED ROBOTIC CAR USING TOUCHPAD COORDINATES

has been prepared and submitted by Stephen Lloyd R. Velarde, Ma. Cristina M. Salamanca and Tifanie D. Superar, who are hereby recommended for oral examination.

ENGR. RECKY S. BARRERA Adviser

Approved by the Committee of Oral Examiners:

ENGR. MARY JOYCE M. MYERS

Chairman

ENGR. MARLON V. ALCANCES

Member

Accepted as a requirement for the degree of Bachelor of Science in Computer Engineering.

Approved:

October 2014

MENCHIE A. DELA CRUZ, MSIT

Dean, CCIT

## Abstract

A touch screen is an electronic visual display capable of 'detecting' and effectively 'locating' a touch over its display area. It is sensitive to the touch of a human finger, hand, pointed finger nail and passive objects like stylus. The screen hardware uses an algorithm to determine the location of the touch based on the transducer signals. This process is similar to triangulation used in GPS. In this research, a touch screen radio controlled car is built using this characteristic of a touch screen.

Sources of inspiration initially came from previous projects, specifically the numerous RC car projects over the years. The project consists of the touch screen as its transmitter. The direction of the car is extrapolated from the point made by the user on the touch screen and sent to the car through radio frequency transmission.

Most goals set out for this project were ultimately achieved. The user touch screen control unit worked flawlessly, transmitting the correct points on the screen. Essentially all hardware was in fully functioning order. All hardware was very thoroughly tested and indeed the transmitted signal was being correctly and effectively received by the car.