

ABSTRACT

Nowadays robotics technology has developed rapidly. This technology had a certain level of complexity and difficulty in the design implementation so that it becomes very popular among students. Various types of robots are constantly created to improve the features and benefits of the robot, for example such as a remote control of robot that continues to evolve with different variations in terms of design, device components and also in terms of control. So this Final Project aims to implement a remote control for RC car use 802.11b communications.

Final project configured between user, server and motor. The user controlled the motor using a remote control with a program that created using visual basic software and servers are implemented on a Linksys WRT54GL wireless router that modified by installing setserial and carserver software therein. Motor that used is a motor that is integrated with a microcontroller that using IC RX2 as IC control.

Integration between user, server and motor have a result of a good system where with send a command with a keyboard which is in the laptop with visual basic interface program then the command received by wireless router that result RS232 result which then go to mikrokontroller ATMega8535, and the mikrokontoller ATMega 8535 send ICX RX2 command to control a motor movement as a command that received. Integrity of the system add a D-Link 5220, webcam for interface for picture display for a laptop that had a D-Link 5220 driver installed. And webcam configurate with a wireless router using UTP cable that result connection maximum distance is 50M from user to server delay is 2 sec using UTP cable, and for wireless reach minimum 500 sec and maximum 800 sec, wireless delay is more bigger because of interference