

ABSTRACT

Nowadays, information system is growing very rapidly. The highest information need encourages people to create a tool that allows in obtaining information from various places. One of the information systems which always required is the system can control an object. It would be easier if the control is connected to the object directly. However, it is less in terms of mobility and efficiency. Therefore, it needs a control device system which capable to control of object efficiently, not depend on the time and place, and objects that are controlled remotely.

This control system can be used in wide area, as long as its reaches a 3G network. The instruction control uses DTMF signals, so it is easily recognized by the system as a unique instruction to activate the moving object. DTMF source is obtained from cell phone control side.

For this final project, made an unmanned moving object control system which is used is a prototype car with 6 volt DC motor. This system uses AVR microcontroller ATmega8535 as movement control center for prototype car. Whereas, this system uses IC MT8870DE for the DTMF signal detector. Media used is a video calls communication on 3G network. The cell phones of user and the moving object used are cell phones which support video call. This system works in real time with 4.7-8 seconds as the process delay.

Key word: control system, microcontroller ATmega8535, IC DTMF MT8870DE, video call, 3G