

## ABSTRACT

House is one of the buildings used as a residence for a certain period of time and security is a state free of danger. Home security is the main thing for home residents to feel safe without having to worry about theft. When homeowners go to work, shopping or other activities which are done outside the home, of course homeowners do not want to feel anxious when the house is abandoned, for that reason the home security system at the present time is needed.

In this final project, an home security sistem based on arduino and camera which functions as a security system when homeowners are engaged in daily activities outside the home, so as not to feel anxious for the theft of the rampant happen at home. This home security system uses Arduino Mega as its Microcontroller, PIR sensor and magnetic sensor as a detection sensor, buzzer as sound notification and Car DVR Camera to record events directly if theft is detected. The camera will record events according to position, for example detected object is on the right, then it will record the right as well as so on.

The results of this final project in the form of Home Security System tool installed in the form of a miniature house. In the PIR sensor test results used can detect at a maximum distance of 3m with position  $90^0$  to right and  $90^0$  left, recording capacity with 4GB of memory, the camera can record a maximum of 5 minutes in a single recording and accommodate 30 video recordings with 29 videos duration 5 minutes and 1 video duration 1 minute 17 seconds. In the testing phase can be said that the overall tool function is running properly from the start testing the keypad, LCD Display until servo motor.

Keywords : Arduino Mega, PIR Sensor, Magnetic Sensor, Car DVR Camera, Buzzer