

ABSTRACT

Raspberry Pi, also referred to by the name Raspi, is a single board computer (Single Board Circuit / SBC), which has the size of a credit card. Raspberry Pi can be used just like regular computers, to create reports, playing games, browsing can even be used as a media player because of its ability to play high definition video. With the capabilities of this Raspi, can be used to create a security system. In the final project, the writer will design a security system using the Raspberry Pi room with PIR sensor and camera. The security system can be controlled by a web base application.

After doing the design and then implement and test, it can be concluded that the Raspberry with hardware and OS capabilities Raspbian and Python programming language can be used to build a security system room. PIR sensor is able to recognize body heat well. The process of sending sms membutuhkan average time for 3 seconds using USB GSM modem. Pi-camera can be used to record video with the greatest resolution at 1080p. Results .h264 format video recording.

Key word : raspberry pi, pi-camera, PIR sensor, python.