

## ABSTRACT

Home security is one of the problems in our daily life. Day. Anxiety often hits us when we leave our homes. however, The application of a PIR sensor that can detect motion and ESP32CAM what you can do You can find out the possibility by giving a notification in the form of an image Criminals breaking into the house. In addition, the telegram function is as part of the ability to send notifications of Movement and door opened status to homeowners. by method Through experimentation and literature survey, this research uses ESP32CAM smart home and PIR sensor. The components used in this study include: esp32cam, pir sensor, USB cable, mini board, FTDI USB to TTL serial and a smartphone user (telegram application) which is used as a controller and sends notifications if there is movement at the main door. The results of this study are in accordance with the following objectives: Build software with an IP address of 192.168.43.62 and hardware by simulating a smarthome using the main door as the object of research. The results of the PIR sensor test can be detected. The maximum distance traveled is 5 meters. Telegram notifications are also successfully sent to homeowners every time there is movement or a door is opened detected by a sensor.

**Keywords:** ESP32CAM, smarthome, security, and PIR sensor.