

ABSTRACT

Lately there are many crime around the environment of Telkom education area. Both robbery, theft and so on, not a few victims of the students who have already lost a lot of valuable things, like motorcycle, laptop, cellphone, etc. Therefore an extra security system at boarding which vulnerable to crime is required. One of the areas that are vulnerable to is aly cottage in gg.demang. several students had lost valuable things due to lack of security systems at the main entrance. Previously there is security using cctv cameras, but cctv should monitoring everytime, while student don't have much time for monitoring cctv.

At this project will be developed a security system based on microcontroller arduino at the main gate. The main gate will equipped with RFID which connect to solenoid as auto lock system, so that gate is always close, and boarding area are safe from outsider. In front of the door there is PIR sensor as detector for detect human in front of the gate. This security system also include monitoring system with Ethernet shield as interface and connect to web server for auto lock and auto unlock system, so that the occupant of cottage shouldn't busy to open the key manual if there is a guest who will go in the cottage. Also in the edge of gate there is ultrasonic censor as a sign that the gate is open too long and alarm as a sign.

Final result from this security system is to design a security system in the form of RFID as an access door and door lock with solenoid, also equipped with door detector system with ultrasonic, person detector with sensor PIR and monitoring system on web server. Designed with a simple and effective system.

Keyword : security system, pir censor, arduino , RFID