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***HOME SECURITY SYSTEM DESIGN USING MICROCONTROLLER,
ARDUINO UNO, BIOMETRY, RFID, AND CAMERA***

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ABSTRACT

Home security is starting to shift using technology. This research will create a system to replace mechanical door locks with RFID and fingerprints, and provide a security system using a camera.

The door lock will be replaced with an RFID card and fingerprint that works together. RFID cards and fingerprints will be read by Arduino Mega and then sent to the computer to be matched with the database. Computer will determine whether the door is opened or not, and will also record the activity behind the door. The programming language used on computers is Python. Data related to system activation will be sent to the web server to be accessed anywhere. This research will see how successful the system is in handling the situation.

This research resulted in a door lock and security system that had 100% success. The system can use the database properly and access the web server, but cannot display the video directly.

Keywords : RFID, fingerprint, door lock, security, Python.