ABSTRACT

Along with the development of time, a new problem arises which is quite worrying, namely when leaving the house for a long time with an empty house without anyone at home. This is often a target or target for criminals to carry out their actions, namely by committing theft in a house. From these problems, a home security system design was made by utilizing 2-step security authentication that can provide even more secure security and e-KTP as the opening of this security system, which when attaching the e-KTP to the RFID reader will read a UID from e-KTP then the LCD displays the words "UID is correct, Enter OTP code", then enter the password to unlock this automatic lock. The method used is the Black Box method for testing the functionality and testing the durability of the tool. This method is used to perform a test of the software and hardware that has been made whether it is running as expected or not. The results of testing this system obtained results that match the author's expectations. The RFID module can read UID well, the LCD can display writing as desired, the keypad works well, and the relay can act as a door lock solenoid switch properly. So that the system can run well and can open the door using an e-KTP then security authentication is 2 steps, which results in the conclusion that the system works well but requires a fairly high electrical power.

Keywords *: e-KTP, RFID, Microntroller, OTP, Autenfication level 2*