"Charity Box Security System Design".

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ABSTRACK

The charity box is a charity container managed by a charity. charity box can be interpreted as a box-shaped place that is used as a place to store or objects intended for charity. In some cases of theft, the thief not only steals the money in the charity box, but the thief also takes the charity box away to hide the evidence. The purpose of designing this charity box security system is to detect theft. The microcontroller used in this system is Arduino Uno and NodeMCU which functions to control every sensor that runs and processes every value sent by the sensor. Ultrasonic sensors as a measure of the distance between the charity box and the floor, RFID to open the charity box, buzzer and siren as a warning to thieves who run away from the charity box, and Selenoid doorlock as a key to the charity box. Furthermore, this NodeMCU system is the Blynk Application as a notification to mosque administrators that someone is trying to force open the charity box. A reed switch sensor that functions as a switch that has a value of 0 and 1, and a GPS Module as a location tracker from a charity box. The results of this test From the results of the test with a distance of 30 cm, an accuracy of 93.4% was obtained, and Based on Testing this Gps module takes some time to be able to detect the location of the charity box. Therefore, it is necessary to further develop the module in detecting and sending locations quickly without waiting, so you can receive location data that is more accurate and clear.

***Keywords**:Mikrokontroller,Arduino Uno,NodeMCU,Sensor Ultrasonik, RFID, Buzzer, Sirine, Selenoid door lock, Blynk, Sensor reed switch,Modul GPS.*