

Smart Door Lock System Using ESP32

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Abstract: *In terms of house security, the door is crucial. To keep the residence secure, the owner will keep the door locked at all times. However, owing to a rush when leaving the house, the house owner may forget to lock the door, or they may be unsure if they have closed the door or not. In this paper, we have presented a smart Wi-Fi Door Lock using the ESP32 CAM and the Blynk App. In this simple working model, when a person hits the doorbell, the owner receives a notification on his/her phone with a photo of that person. The owner can also unlock the door from a mobile phone after checking the photo. The proposed Door Security System application Door Lock with ESP32 and Internet of Things (IoT) technology to monitor the status of the door, manage the door, and increase security in a home. Blynk is a communication protocol that connects a smartphone to a door lock system and is used to increase the security of a home. Door plays an important role in home security. To secure the house, the occupants of the house will always have the door locked. However, sometimes the house occupants forget to lock the door due to hurry when leaving the house, or they may doubt whether they have locked the door or not. We propose an application called Door Security System which is based on Android using Internet of Things (IoT) technology to monitor the status of the door, controlling the door and increasing security in a house. MQTT cloud is utilized as the communication protocol between smartphone and door lock system. PIR sensor is implemented in the door lock to detect the movement near the door, while touch sensor is installed on the door handle to recognize the human hand. Should the door is opened by force, the alarm will ring and send notification to alert the house occupant on the existence of intruder in the house.*

Keywords: ESP32 Wroom, Smart Home ,WiFi.

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