DESIGN AND CONTROL SYSTEM OF HOME FENCE
BASED ON INTERNET OF THING (IoT)

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Abstract

Along with the development of technology and communication, the gate can be opened and closed automatically using a remote control. But it is still less effective and efficient. In this study, the author wants to design and build a gate control device using an Android smartphone application so that it can be a support for users to open and close the gate from a short distance or long distance, by utilizing the concept of the Internet of Things (IoT). By using NodeMCU V3 connected to a Wifi network or the internet, the fence can be controlled remotely or at close range. Based on the results of testing the distance between the tool and the Wifi source, the distance of 5 to 10 meters is quite good and the fence responds to commands sent from the application and gets different data when the fence is open, it is due to interference with the Wifi network. But at a distance of 18 meters the fence does not respond well to commands from the application because the distance is too far between the device and the Wifi source and is blocked by a wall. However, the distance between the device and the Android smartphone is not limited as long as the Android smartphone is still connected to the internet network, the user can control the gate.

Keywords: Internet Of Thing (IoT), NodeMCU V3, Gate.