

ABSTRACT

House is a shelter that needed by humans. Its content consist of equipment and goods, such as electronic devices, that could help the residents' activities. A house sually occupied by one or a more individuals who are members of a family. Each resident has adapted to the particular needs of their respective activities. The diversity of the activities of each resident then influenced the use of their existing electronic devices. Automation systems turn on or turn off electronic devices automatically can be a solution to facilitate the activities of each resident. However, the system runs automatically may not work properly if here's an error in the use of any system or any interference from outside. The incorrect use of the system such as exceeding the recommended distance that will affect the optimalization of the system, such as greater response time. In this final project, a system that can turn on or turn off household electronic devices automatically based on the user's smartphone Bluetooth detection and by the usage time; from the morning until night, during weekdays and day off/weekend, has created. Based on test results, system implementation can be completed and functioning in accordance with the time and the presence of family members' smartphone. Effective distance with 100% successfull detection is 6 meters without a bulkhead (wall) up to 5 meters with 2 bulkhead (wall). The average response time to turn on electronic devices is 5.5 seconds. If there is another Bluetooth signal that does not belong to registered user detected, it may affect the ability of the system: by increasing the response time to turn on electronic devices.

Keywords: Bluetooth, Electronic Devices , House, Smartphone.