

ABSTRACT

The frequency of portable devices usage nowadays is becoming higher. Work demands and user's needs make portable devices often used, especially laptop. However, user often forget to watch battery percentage of its laptop. User also forgets to plug or unplug their laptop charger from laptop, this reduces the capacity of battery.

This final project is entitled "Design of Auto Stop And Play Multicharging System Using Arduino Uno With HC-05 Bluetooth Module". To run the system, a special application and controller is needed. To build the application, writer used Matlab 2012. Meanwhile, the system uses bluetooth to connect the laptop with the controller. The process of the system will started from opening the application, the input of start and stop point, and the input of terminal address that wills used by the charger. After that, the application will detect battery percentage changes. When the application reached one of two condition : start or stop point, a command will be sent to the controller to connect or to disconnect charger from source.

The measure of this final project is observed based on two conditions : with system or without system. From the measure, two efficiency values of charging duration obtained. Efficiency value on laptop without running any application is 88,6281%. And efficiency on laptop with running some application is 97,9591%. In the other hand, this system still can be implemented even the distance of user and controller is 20 meter.

Keywords : Charger, bluetooth, start dan stop point, relay, battery percentage