

ABSTRACT

Automation is needed in this life, especially with the advancement of age that demands human work effectively and efficiently. Often one forgets a little work because of time constraints, such as opening and closing the curtains. For families who do not have a household assistant while they have each other's work, the less time spent on caring for the house where they lived. Since the number of homework that is far more important, close and open the curtains often forgotten.

This tool is made by using microcontroller ATmega8p, microcontroller pins are chosen because they have quite a lot and can be used in the application of this final project. This tool uses a DC motor with a motor driver series L293, L293 motor driver selected because according to their needs and has an input voltage of 4.6 V - 36 V. In order to control the tool uses a light sensor (LDR) in automatic mode and manual mode smartphones and using bluetooth as the communication module on the microcontroller.

Based on test results, which do result Bluetooth connectivity with a maximum distance of 29 m. Average power usage during standby curtain is 636 mW, the power required at the time of moving curtains open is 4,144 mW, while the power needed at the time of moving curtains closed ie 4,424 mW. Light sensor (LDR) can work in accordance with a predetermined threshold value, namely 500. Curtains can work in accordance with the target.

Keywords : DC Motor , Motor Driver (L293) , LDR light sensor , microcontroller Atmega8p