

ABSTRAK

LCD Projector Is one of the devices used for multimedia presentation in various activities, such as education and office. The use of LCD projectors for these educational activities has provided many benefits for students who attend lectures. Likewise, for lecturers as college faculty, the use of LCD projectors can facilitate lecturers in delivering materials interactively through notebook devices owned by lecturers.

This design and manufacture begins with the manufacture of mechanics for LCD projectors On the design of the metal buffer tool using an iron can withstand heavy loads. And use stepper motor controller which is arranged by microcontroller system. In the stepper motor control circuit, the direction of rotation and speed is governed by the motor driver. In the process of controlling the projector the LCD buffer will move up or down according to the given, testing of the automatic infocus lifter when getting commands from Wifi and Bluetooth communications.

Results from the final project implementation of microcontroller based projector lifter is already integrated with wifi and Bluetooth module so as to be able to communicate wirelessly. Implementation of projector drive based on microcontroller that has been made only able to give a maximum load of 3 kg with the speed of receiving the commands given by android software The studio uses a bluetooth HC-05 series of 0.59 seconds. While on the wifi series ESP8266 speed received commands given by the android studio software of 0.41 seconds and the speed of receiving commands when using serial monitor on the software Arduino IDE of 0.19 seconds.

Keywords: Arduino uno , *Bluetooth* , *wifi* , Motor stepper.