

ABSTRACT

The installation technique for SMD components, whether used by individuals or home industries, still uses manual devices in the form of hot blower solder or hand gun soldering. The process of soldering the use of the devices is still being carried out by component installation. Installation of manual and percomponent soldering has an impact on poor result and a relatively longer time.

From the above problem, in this Final Project research, a soldering device can be made that can do soldering simultaneously. The system is made using an electric oven modification by replacing and redesigning the entire electronic circuit. The main components of the system use the ATmega 328 Arduino microcontroller, the sensing uses a thermocouple and the max 6625 interface. While the system output device use electrical elements and relay interfaces with the soldering temperature of 150° C.

The test results of the device being made, the component can be installed properly, simultaneously and neatly on the pcb. The heating time to reach a temperature of 150° C is needed for 480 seconds.

Keywords : Solder Reflow, SMD, ATmega 328, Arduino, Thermocouple.