

## ABSTRACT

Soldering is a process for installing electronic components on an integrated circuit board by utilizing hot air generated by the heating element. Electronic components that we often encounter through hole and smd type, the installation of these components is done by soldering process. Installation of SMD components requires a special solder to facilitate installation, solder which we often encounter is a type of solder blower. Using a solder blower requires the ability and practice in using it.

With the use problems that occur when using a solder blower is designed a reflow soldering tool with temperature regulation. Temperature control and monitor devices that are designed can be accessed using the web provided specifically for using them. Users can use the web to set the desired temperature for the soldering process and control the temperature generated from the heating element in the hardware designed. After the temperature is input from the web, the next process will be received and instructed by the microcontroller device in the form of a NodeMCU.

Based on the testing phase carried out, the reflow soldering tool with temperature control and the web is functioning properly. The heating element functions when the temperature is inputted and a K type thermocouple temperature sensor can read the temperature rise generated from the heating element. The results of the soldering and desoldering processes of the designed device are not damaged or failed. Users can see and control the desired temperature with the web that has been provided.

**Keyword:** *soldering, SMD, desoldering, solder reflow*