

ABSTRACT

Pillow heat therapy using a temperature sensor and timer-based controllers microcontroller ATmega16 is a tool used for heat therapy in the human body by using a heater fabric or often called heater fabric, with conductors in it using quartz sand as a conductor of heat from the heater it. The tool is also equipped with temperature control and timer, temperature sensor used is LM35 temperature sensor that every one of his mV can be converted to temperature display with ADC in the microcontroller. Timer used is only 5 minutes, 10 minutes, 15 minutes is the threshold corresponding to the heat treatment time is at a temperature of 40 degrees Celsius within the range of 41.5 to 51.5 degrees Celsius has been good for the human body's skin and secure.

The working principle of his current turn on the appliance in direct enters the timer setting 5,10,15 minutes. After timing press enter heater turns on after a temperature of 40 degrees celsius heater will die and if less than 40 degrees Celsius heater is on. After the closing time will be lit as an indicator buzzer therapy is completed.

Keywords:*Heater, Timer, LM35 temperature sensor, ADC, Microcontroller ATmega16*