

ABSTRACT

Infant Warmer is one of the tools elektromedik used for protection in neonates (babies) a newborn that aims to keep the baby's body temperature in order not to experience hypothermia that is only temporary.

Infant Warmer contained in the hospital was damaged and most of the electronic circuit can not function. On this occasion the author wants to make the circuit and modify the tool entitled "Modified Infant Warmer Equipped with Temperature Sensor and Microcontroler-Based Skin AT89s51".

In modifying the tool is the author adds two measurements are measuring temperature, and skin. The working principle of the temperature settings are giving the temperature in the room by using the LM35 temperature sensor with a temperature setting is 32 °, 34 °, 36 ° C. The working principle of the temperature sensor is to monitor the state of the infant warmer temperatures so that in case of over-heat or temperature exceeds the set temperature can be directly known, while the working principle of the sensor detects the temperature of the skin is the baby's body by using the LM35 as sensor skin.

And after taking measurements obtained average error of 0283% and% error tolerance for tool modification is 2 so it can be concluded that these tools can be used.

The series of temperature regulation is controlled by the microcontroller IC circuit works well, so does the heater driver circuit in the form of SSR (Solid State Relay) and Sevent segment display circuit. The spread of the temperature on the tool because the tool is not fully equitable working on open space. From the measurement with a thermometer error values an average of 0283% and a tolerance for tool modification by 2%, thus it can be concluded that the tool can work well according to the temperature setting.

Keyword: Infant warmer, Temperature and skin