

## ABSTRACT

*Baby Incubator is one type of tool used for protection elektromedical in neonates (babies) are born premature or have low birth weight by providing a stable temperature and humidity and oxygen demand in accordance with the conditions in the mother's womb.*

*Baby Incubator located in the hospital was damaged and has an alectronic circuit can not function. On this occasion the author wants to make the circuits and equipment modification the caption "Modification Infant Incubator YON-DON-YD-F-285 Equipped with Temperature Sensor, Skin and humidity Microcontroller Based AT89S51" (Temperature and Skin).*

*In modifying this devices, the author adds of three measurements of temperature measurement, the measurement of skin and humidity measurement. The working principle of Temperature setting is to give the temperature in the room by using the LM35 as a temperature sensor with a temperature setting is 32 °, 33 °, 34 °, 35 °, 36 °C. While the working principle of the Skin is detecting the temperature of the skin by using the LM35 as a sensor with a temperature setting of skin between 36° and 37°*

*Given the dangers of these devices when there is no setup temperatures could threaten the safety of the baby it is considered necessary preparations to setup the required temperature. And after measurements, the largest % error is 0.4.*

*So it can be concluded to room temperature and skin already meet the standard modification for less than 2% of the standard modifications.*

---

*Keywords: Baby Incubator, temperature and skin*