

ABSTRACT

Infant Incubator is one of the equipment used to provide protection to newborns who are having premature (LBW) difficulties in maintaining a stable and volatile body temperature, because premature babies are babies born under abnormal conditions, due to weight gain babies below the average size of a normal baby or the age of the womb that is not even 9 months. The purpose of this tool is to provide a stable temperature and humidity in accordance with maternal conditions and provide protection against germs such as viruses and bacteria from the outside environment. The contribution in this study is that the system that controls the temperature to drain the air inside the baby incubator is maintained. In order to help normalize the temperature and humidity around the baby's body. The research and manufacture of this module uses a control system at room temperature with an LM35 sensor, skin temperature reading using a thermistor sensor and humidity reading using a DHT22 sensor. The test results and measurements obtained an average difference value of $\pm 1,33^{\circ}\text{C}$ each time setting the room temperature to the reading of the tool. The reading of the humidity value in the chamber obtained value $<70\%$. Measurements on skin temperature were carried out on respondents by getting an average value of $34,7^{\circ}\text{C}$. The results of this study can be implemented in neonatal premature babies in order to survive.

Keywords: *Incubator, LWB, Room Temperature, Skin Temperature, Hummidity*