

## ABSTRACT

*Newborns, both healthy and premature babies, have a difficult problem, newborns withstood the environment with new ones that previously depended on the mother's uterus and also as a place for initial examination in nayi after just being discussed. The purpose of this study was to add a baby warmer with PID temperature control and add respiration parameters and APGAR. The contribution in this study is the PID control system which is used to control temperature and is also a sensor of respiration rates to determine respiration in infants. So that the values of the temperature sensor and Respiration Rate sensor can be stable it is necessary to adjust the sensor's reading time. The LM35 sensor can activate temperature in the body, the Flex Sensor is used to read respiration values in infants. Based on data collection of respiration rates taken from adults, an average value of 18.5 times per minute was obtained in the first attempt, and 21 times per minute in the second trial. Respiratory rate values that have not been stable take data because there are still external factors, such as changes from respondents and others. The results of this research can be implemented on baby warmers to improve the application of updates to the baby.*

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**Keywords : Infant Warmer, temperature, PID, respiration rate**