ABSTRACT

There are four important physiological parameters commonly used by nurses or medical personnel in determining the health status of patients in the hospital. The four parameters are body temperature, pulse rate / heart rate, respiratory rate, and blood pressure.

The degree of respiration is an important physiological parameter that helps to provide important information about the patient's health status, especially of the human respiratory system. So it is necessary to measure the rate of human respiration by counting the number of respiratory frequency within 1 minute, This measurement is usually done to diagnose a disease. From the results of the respiratory rate measurements there are 3 levels of grouping, for normal breathing frequencies called eupnea, while the number of breathing that exceeds the average is called tachypnea and is lower than the average number of breathing commonly called bradypnea.

So from the above background, the author makes a tool for the detection of human respiratory rate microcontroller-based body temperature method so that the operator can measure respiratory rate more conveniently and accurately.

Result of measurement data to 10 respondents with manual method and bedside monitor comparison tool then there is error 1.78%, The value is still below the limit of 5% error tolerance.

Keywords: Temperature, Respiratory Rate, Breath Per Minute