## **ABSTRACT**

Monitoring heart rate is an electronic device used to observe the condition of the heart continuously. Monitoring tools available today only to show the value of every minute bpm patients, whereas one of the tasks of nurses must record and make graphs for analysis bpm monitoring the health condition of the patient. Expectations author nurses can directly monitor the value bpm and see the results of the patient's chart bpm simultaneously.

Bpm amount obtained from the pulse or blood vessel blood flow to the fingers that were censored by the finger sensor. Censorship results of sensor signals is what will be processed in the microcontroller circuit. In the processing of data to be displayed on the display using the IC ATMega32 author as micro processors. Process tool monitoring is done by plotting the results bpm every minute on lcd graphics.

Based on the results of testing and measurement in 3 patients with measurements of 24 times on every patient with BPM tools comparison, the average value obtained is not much different from the comparison value, which is 2 percentage bpm with a maximum error of 0.8%. After conducting the process of planning, experimentation, manufacture modules, and testing and data collection can be concluded that the tool "Heart Rate Monitoring with LCD Graph" can be used and according to plan.

Keywords: BPM, LCD Graphics, Monitoring