ABSTRACT

An electrocardiograph is a device for recording human physiological signals generated by the electrical activity of the heart. In electrocardiograph equipment, calibration is usually carried out using a phantom electro-cardiograph which is a device for simulating electrocardiograph signals and is useful for testing electrocardiograph equipment during repairs. The purpose of this research is to make an electrocardiograph simulator for a 12 channel electrocardiograph device which includes lead I, lead II, lead III, aVR, aVF, aVL, V1, V2, V3, V4, V5, and V6 with sensitivity selectors and Beat Per Minute. using the formation method. The heart signal uses MCP4921 DAC with Atmega2560 micro-controller and for display settings using Nextion TFT. After measuring, the error results for the module with an electro-cardiograph recorder are 0.833% on Beat Per Minute 120 and 0.556% on Beat Per Minute 180. After testing, it can be concluded that the phantom electrocardiograph can be used and according to the plan.

Keywords : Calibration, atmega2560, mcp 4921,Sensititas