

ABSTRACT

Blood roller mixer is device can be used to mix blood in order to achieve a homogeneous state so can prevent the lysis of blood, air bubbles, blood clots that can clog the Hematology Analyzer. There is some cuvettes that the contain are blood and anticoagulant will be mixed for 15-20 minutes. This tool uses two voltage sources apart from PLN also use the battery as a voltage source replacement if the power turn off in order to avoid the blood is drying out. The operation of this tool is when ON pressed, LCD will initialize and press the time and speed selection. After that press enter key and motor will rotate . If the process has been completed, motor will stop rotating and the buzzer sounds.

The importance analyst for mixing blood in order to achieve a homogeneous state is the reason to create this module. With the existence of this module, the analyst can directly set the time and speed as needed, there is a battery as the voltage source when the power is turn off.

From the description, author try to complete blood roller mixer tools that already exist with time setting 15-20 minute and speed of the motor 40 and 46 rpm with battery charge equipped microcontroller AT89S51 that will be displayed on the LCD .

Keywords: Blood roller mixer, homogen, mikrokontroller