

ABSTRACT

Ultrasonic Nebulizer elektromedik is one tool that is used to deliver therapy for the treatment of patients whose disease disorder or disorders of the respiratory tract by making use of liquid is mixed with the drug , wherein the liquid undergoing a process of solving the liquid into a very fine mist , so that when inhaled through the nose and oral medication will go directly to the lungs to relieve complaints of cough and other asthma symptoms .

On campus laboratory technique nebulizer elektromedik there is a tool that no timing and flowrate that can not be controlled how long the use of the tool . So the authors sought to improve and modify the control board plane with automatic timer system based microcontroller . By modifying this tool will facilitate the operation of the tool . Oscillator as Piezoelektrik activating the timer will work after the election and flowrate finished pressed enter and the buzzer will sound when the desired time has run out , at once deadly oscillator driver .

According to the measured data and the speed of the motor timer on Nebulizer , error values obtained from the comparison between the measurements on the display with a stopwatch timer on the measurement error of 3 % 5 minutes , 10 minutes errors 3 % , 3 % error 15 minutes , 20 minutes errors 0.25 % , 25 minutes errors of 0.13 % , 0.11 % 30 minutes errors .

Keywords: *Flowrate, Nebulizer, Piezoelektrik.*