

ABSTRACT

Infusion is one of the medical instrument used to insert the form of liquid nutrients through a vein sufferers in a certain amount and within a specific time according to the type of illness. The working principle of this tool is to use a DC motor to adjust the lowrate of the fluid that dripped so it can be easier because it can tell how much the amount of fluid that has been given to the patient.

While in college majoring in electrical engineering Surabaya itself already contained medical infusion pump device. Infusion pump located on the campus of the medical electrical engineering Surabaya is manufactured and the conditions are not functioning. Because of the importance of infusion pump device in the world and on campus there kedoktera infusion pump device is not functioning. Then the author would like to improve the existing tools in the infusion pump to be in leb elomedik functioned again.

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From the above considerations, the author will make the module "Pump infusion Precipitation Sensor Equipped With Buzzer Indicators With Digital Systems". In making this module uses a series of LDR and LED as a sensor drops and NE555 circuit (astable) to control the motor speed stepper. Urungkan pengeditan

Based on the analysis of the velocity flowrate 20 ml / h obtained% error of 4,9%, at a speed flowrate 42 ml / h obtained% error of 2,5%, at a speed flowrate 62 ml / h obtained% error of 1,7%, at a speed flowrate 82 ml / h obtained% of 1,5% error. based on the results of the analysis concluded that the proper tool to use.

After a process of making and literature studies, planning, experimentation, testing, data collection tool, it was found that an infusion pump devices with more advanced techniques that facilitate the work of the operator.

Keywords: *infusion pump, 555 Astabil, Flow Rate*