

ABSTRACT

Infusion is a medical device under certain circumstances be used to replace lost body fluids and electrolyte balance the body). The infusion is used to replace lost body fluids. The infusion can also be used for the initial solution when the electrolyte status of patients is unknown, for example in cases of dehydration due to insufficient oral intake, fever, etc. Because its function is very important, then the infusion process must be done properly in accordance with the procedures that have been established to avoid events that can worsen the patient's condition. In addition to many situations patients often move so often happens is the needle that lies in the hands of the patient is often shifted, resulting in blood up to the IV.

The hardware implementation for monitoring fluid infusion using Atmega8535 is helping the nurses to see conditions existing intravenous fluids in patients. This tool is designed to enable nurses to monitor the condition of the infusion in patients such as the number of drops per minute infusion, intravenous fluids dripping or not and the level of intravenous fluids. This tool works by detecting infrared intravenous fluid that goes to the patient on the part where the drip infusion. When within a few seconds the liquid does not drip alarm will sound signal that the state does not drip infusion. Ping sensor will be used for intravenous fluids altitude levels on the bottle, when intravenous fluids remaining 3 cm longer then the alarm will sound signal that the infusion fluid remaining 3 cm. Results from this experiment is that infrared can detect the amount of drip and Ping sensor can detect the level of fluid infusion. Ping sensor detects intravenous fluids 3 cm and its display on the LCD. When fluid infusion 3 cm, the alarm will sound. The advantages of this system is that it can detect liquid drip infusion or by using infrared within a few seconds.

Keywords: Infus, Atmega8535, Ping Sensor, Infra-red