Sistem Pemantuan Selang Infus dan Suhu Tubuh Pasien Berbasis Internet of Things (IoT)

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ABSTRACT

Infusion is a medical device used to replace lost fluids and balance electrolytes in the body for patients. One of the vital signs of human health in the medical world can be known through body temperature. Therefore, nurses often check the condition of the intravenous fluid and body temperature in the patient's room, which is still done manually. Responding to these problems, the authors built a system called the Monitoring System for Infusion Hose and Body Temperature for the Internet of Things (IoT) Patients. In realizing it, an LM393 IR sensor is needed to read every drip infusion, the Load Cell sensor is used to read the weight of the infusion fluid, and the DS18B20 sensor is used to read body temperature. The data from the sensor readings are then processed in a NodeMCU microcontroller device. The processed data is then displayed on a smartphone. For medical purposes, it requires a health support device that has a high level of accuracy. In this study, the results of the tool testing were entirely satisfactory. In sensor testing, an average error rate of 0.81% was obtained.

Keywords: Infusion, Internet of Things, NodeMCU