ABSTRACT

Patient Infusion Detection System based on Micro-controller ATmega8535 is a type of hardware that can be used to help nurses find out information about the condition of the patient infusion without having to look directly into the patient's room.

At this final project, heavy censorship is manufactured by using limit switches and balance spring. Limit switches are a kind of the sensors that will work if its on the actuator pressure to an object. While the balance spring is a simple scale that uses a spring as a tool to determine the object based on the tension spring, which is actually the pressure. When the infusion bag was empty, then the spring contract, so it can automatically suppress the limit switch placed under the balance sheet hung in the spring, on the infusion bag.

For the control system, this tools uses 2 ATMEGA8535 microcontroller which has 40 pins as a series of sensors and receiver circuit. In its communications system, this tools utilizing wireless module Xbee Pro that can minimize the use of cables. The device XBee-PRO RF module is designed with a standard IEEE 802.15.4 protocol and in accordance with the need for a simple sensor network without wires. ATmega 8535 output is displayed on the LCD and an alarm signal.

Keywords: Microcontroller ATmega 8535, balance spring, limit switches, XBee-Pro, LCD,alarm signal.