

Internet of Things Intravenous Bag Monitoring and Alert System

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Abstract

This research highlights the need of an Internet of Things (IoT) Intravenous (IV) Bag Monitoring and Alert System in the medical industry, especially in developing countries like Sri Lanka, and how it can be designed. One of the most important tasks which should be given proper care and attention is IV therapy, which is a medical technique used to deliver medication, fluids and nutrition directly into a person's vein. However, IV treatment requires routine inspection and replacement which is done manually by the medical staff. This can be a difficult and worrisome task in busy hospitals as it is inconvenient to attend to every patient individually while attending to other important tasks as well. Hence, as a solution to this problem, this research introduces an IoT based IV Fluid Monitoring and Alert System which detects the weight of the IV bag as the fluid level goes down and displays the weight of the IV bag on a Liquid Crystal Display display in a common place where the medical staff can easily observe. Also, the nurse in charge can monitor the IV level with her phone while alert notifications are sent at required levels when the IV fluid is gradually decreasing.

Keywords: *IV fluid, Arduino, IoT*