Saline Drip Monitoring System

Scope: -

• To detect the critical level of saline bottle using sensor.

• To send an alert when the saline level is very low.

• Alert will be sent to the Nurses or to the Doctor.

• Try to provide cost effective

• Automatic saline level monitoring system

Software Requirement

Hardware: -

• Arduino D1 Wi-Fi: -WEMOS D1 is a WIFI development board based on ESP8266 12E. The functioning is similar to that of NODEMCU, except that the hardware is built resembling Arduino UNO. The D1 board can be configured to work on Arduino environment using BOARDS MANAGER. So, it’s not necessary to use a separate Arduino board, the D1 itself can be programmed on Arduino IDE. This is handy in using with IOT projects. Further many Arduino SHIELDs are compatible with the D1 board.

• LDR: -Can be used to sense Light. Easy to use on Breadboard or Perf Board Easy to use with Microcontrollers or even with normal Digital/Analog ICSmall, cheap and easily available. Available in PG5, PG5-MP, PG12, PG12-MP, PG20 and PG20-MP series

• LED: - The IR LED or Infrared LED has polarity i.e.it has a positive and negative pin. The pin which is long is the positive pin (anode) and the pin which is short is the negative pin (cathode) as shown in the above IR LED pinout.

• Float Level Sensor:-Float Level Sensor are continuous level sensor that rises and falls as liquid levels change.

• Battery (6V 1.2amp/hr): -6 Volt 1.2 Amp 20 Hour Sealed Lead Acid Battery with F1 Terminals. Backup battery delivers a 24 charge.

• Servo Motor: - Servo motor is a type of motors whose output shaft can be moved to a specific angular position by sending it a coded signal. The servo motor will maintain the position of the shaft as long as you keep applying the coded signal. When you change the coded signal, the angular position of the shaft will change. A common type of servo provides position control. Servos are commonly electrical or partially electronic in nature, using an electric motor as the primary means of creating mechanical force.

• Buzzer: - Buzzer is an audio signaling device. Buzzer will alert the nurses, caretakers and doctors when saline reaches the critical level and for replacement of saline bottle

Software: - ARDUINO IDE, TuneIOT

Architectural design:-

