CSE360 Hardware Project

Group No : 06

Section : 02

Member's Information :

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Project Title:

 Patient Health Monitoring System

Project Description:

Using Arduino and a generic ESP8266, we will design and build a patient health monitoring system. The suggested concept can gather and communicate patient health information like Pulse Rate in BPM and Body / Room Temperature. Any medical device with internet connectivity and the ability to measure one or more health parameters of a patient who is connected to the device. The diagram will show the communication of the whole process:
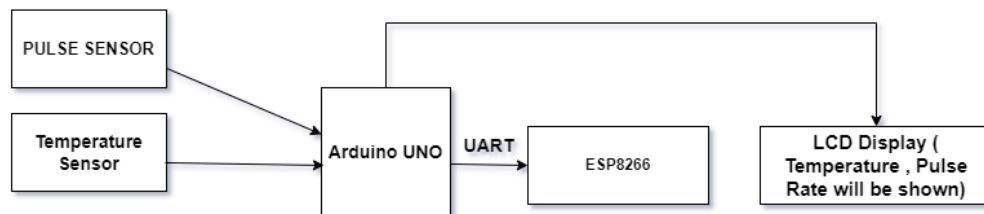
Arduino gathers real-time health information from a pulse sensor that calculates heartbeat frequency or beats per minute (beats per minute). The patient's body temperature is measured by an Arduino-connected digital temperature sensor.

The machine's connection to the internet and the transmission of health data is handled by a generic ESP8266 IoT module that is connected to the Arduino via UART. This circuit is not only capable of sending patient's health data to a server but also can show real time data on a 16×2 LCD display.

Components Required:

1. 1. Arduino UNO
2. 2 LED
3. 1 Cable
4. 10 male to male jumper wire
5. 10 male to female jumpire wire
6. 2 resistors
7. DS18B20 Waterproof Temperature Sensor
8. LM35 temperature sensor (not sure which temperature sensor will work better so will try both sensor & use the best one)
9. Humidity Sensor
10. 16×2 LCD Display
11. Pulse Sensor
12. ESP8266 WiFi Module
13. Wirecutter
14. Breadboard (large).