Wireless Health Monitoring Device

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Introduction

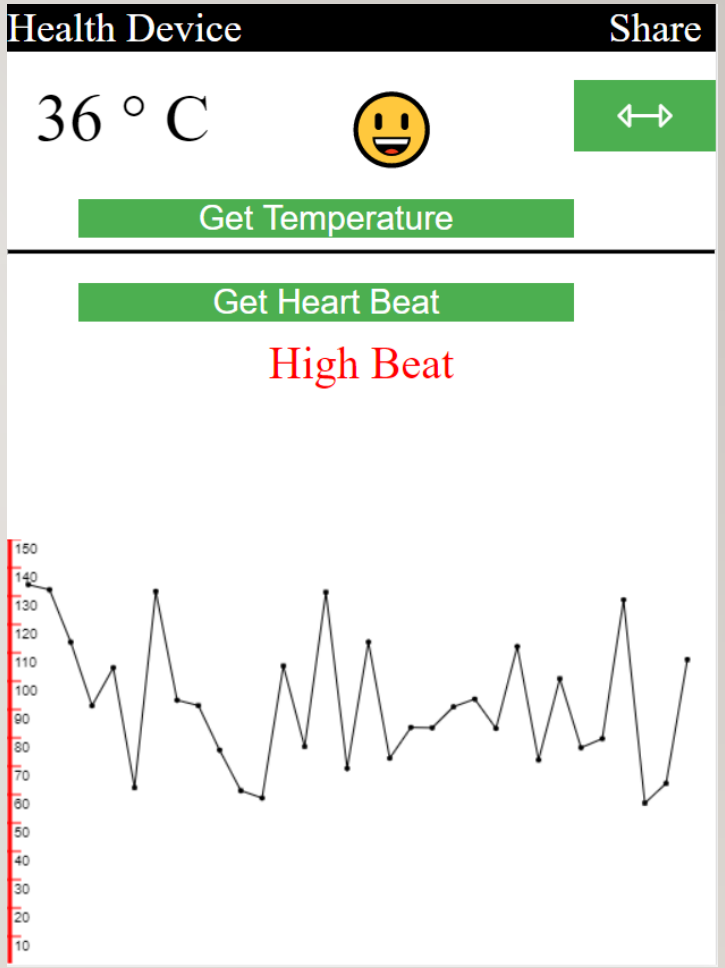
It is a small health monitoring device which will display data in your smartphone. It is portable , cheap and simple to use so that any person can use it easily without getting confused. It is very costly to visit a lab for reports the problem is solved by our device. One of the benefits is that you can share the data to anyone i.e. You are sitting in home and still you can share the data to your doctor so that he can prescribe you medicine.

Feasibility ?

The Device can widely be used in real life as the cost of the whole device is cheap as compared to buying each device for a specific task. The person can easily get the temperature and heartbeat rate. The Data from the sensor can then be shared using the internet to your personal doctor. The device can display the Heartbeat graph on an Android device

Working

The user will select whether he needs to get the temperature or the heartbeat from the android app .The app will request for the data from the device. The device will collect the data and send back to the app. The temperature data can be converted into Fahrenheit. The device Will also tell us whether the heartbeat is low or high. Finally we can share these data to anyone



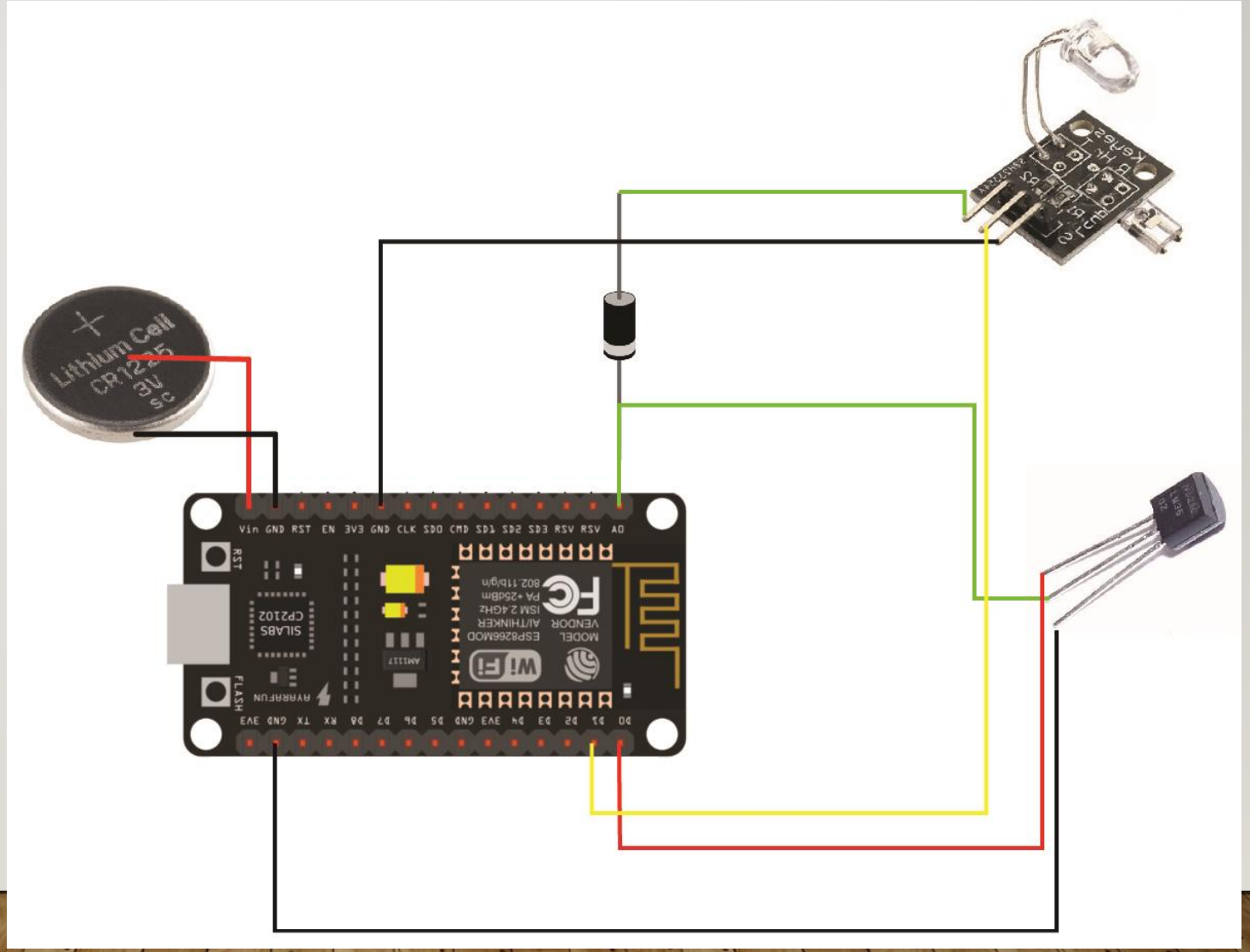
Hardware Requirement

1. ESP8266
2. Temperature Sensor
3. Heart Beat Sensor
4. Batteries
5. Diodes
6. Battery Connectors

Software Requirement

1. Arduino
2. Android
3. JavaScript

Circuit Diagram



Problems

The ESP8266 microcontroller has only one analog input. The Temperature and heartbeat sensor both needs an analog pin. This problem is solved by using a rectifier diode.

Duration to build a device

The Device can take 4 to 5 days to be built. In this duration we have to build the application for android , we have to program the ESP8266 and finally we have to connect all Electronic component.

What we can modify ?

1. We can utilize a ECG (Electrocardiography) Module for recording the electrical activity of the heart over a period of time using electrodes placed over the skin.
2. We need to increase the accuracy in reading heart beat.
3. We need to make it rechargeable.
4. Improve the design.

TEAM DESCRIPTION

- Vishwajeet Singh (Leader) : Connecting Electrical Components.
- Navonil Das: Maintained the Programming for android and ESP.
- Suraj Joshi : Designing the layout of the device.

References

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