

## DESCRIPTION

Health Status Bracelet is a system that functions to give fast detection of the possibility of pulmonary restrictions and obstruction and also helps check the temperature at home.

Monitoring body temperature, heart rate and blood pressure are the basic things that we do in order to keep us healthy. Heart Rate is usually measured in two ways: one way is to manually check the pulse either at wrists or neck and the other way is electrocardiography. But here we have used a heartbeat sensor. **Heartbeat Sensor is an electronic device that is used to measure the heart rate i.e. speed of the heartbeat. The heartbeat sensor works on the principle called Photoplethysmograph. According to this principle, the changes in the volume of blood in an organ is measured by the changes in the intensity of the light passing through that organ.** A simple Heartbeat Sensor consists of a sensor and a control circuit. The sensor part of the Heartbeat Sensor consists of an IR LED and a Photo Diode placed in a clip. The sensor has a clip to insert the finger and has three pins coming out of it for connecting VCC, GND and the Data.

And for measuring the temperature of the patient, we have used LM35. The temperature sensor is a device that senses variations in temperature across it. It is a precision integrated circuit temperature sensor. It gives readings in degrees celsius since its output voltage is linearly proportional to temperature. It uses the fact that as temperature increases the voltage across the diode increases at a known rate. We have designed a system that will first acquire the analog signal obtained by the sensor and then convert that signal into simple digital values and display it on the LCD.