

ANALOG HEART BEAT SENSOR

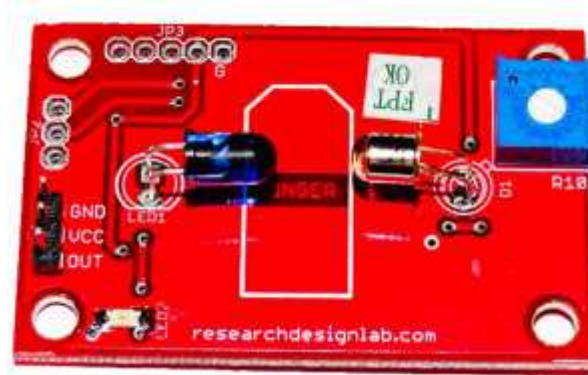


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OVERVIEW

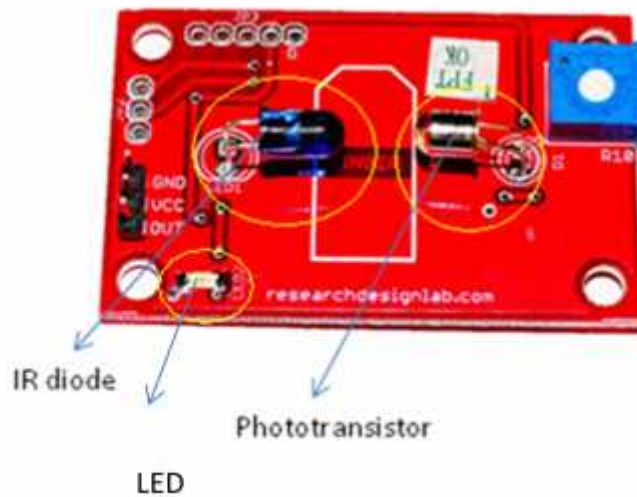
INTRODUCTION



The Heart Beat Sensor is designed to provide analog output of heart beat when a finger is placed on it. When the Heart detector starts working, the top most LED will starts flashing with every heart beat. The output of this sensor can be connected to Micro Controller directly to measure the heart beat. It functions on the principle of light modulation by blood flow through the nerves of the finger at every pulse. The module output mode, analog output mode is simple.

FEATURES

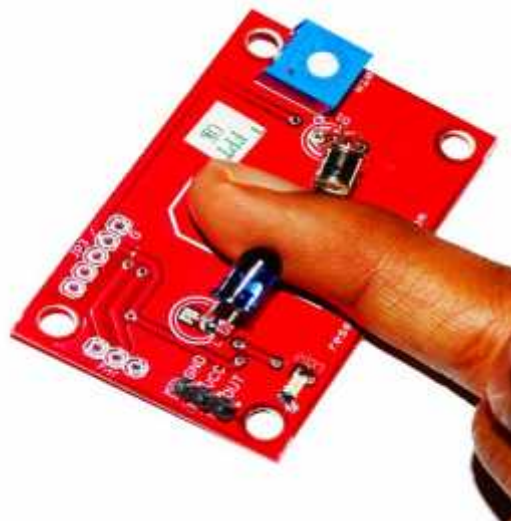
- Heart beat indication by LED
- Instant output analog signal for directly connecting to micro controller
- Module output mode, analog output is simple.
- Compact Size
- Working Voltage +5V DC
- High quality PCB FR4 Grade with FPT Certified.



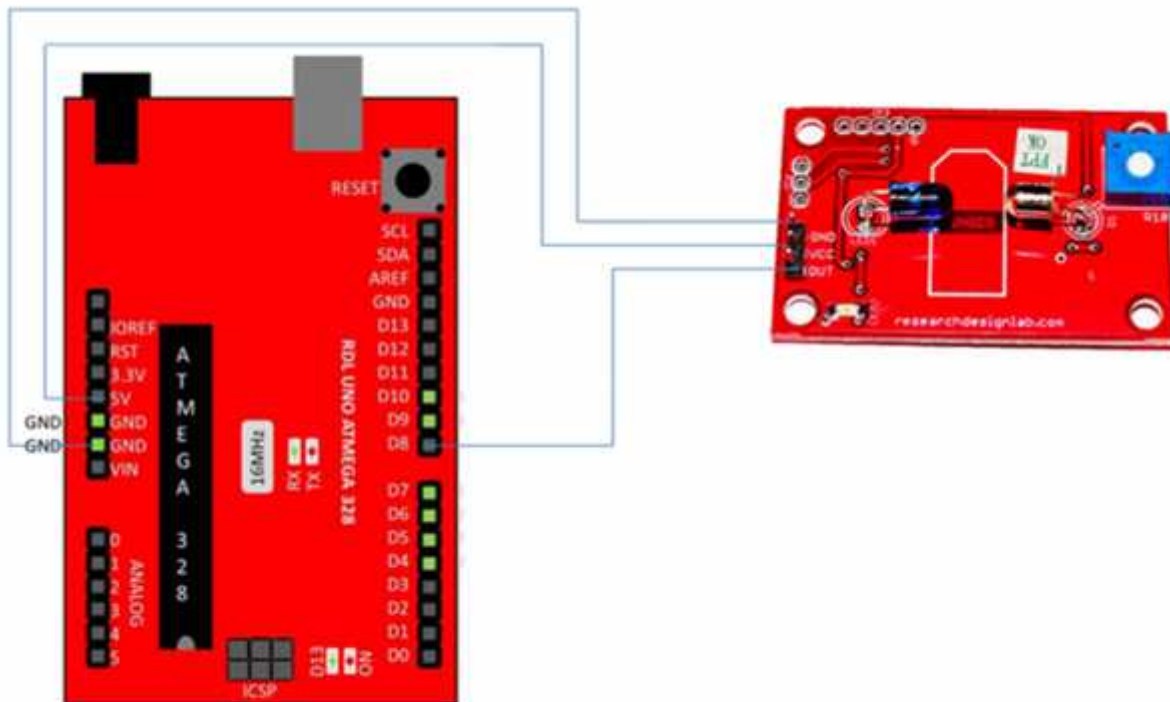
WORKING

Connect **gnd** to ground ,**Vcc** to +5v of any board connect **Out** to any of the port pins

Keep the finger in between the phototransistor and IRdiode as shown in the fig



Check the variation in LED.It counts the number of pulses



ARDUINO CODE

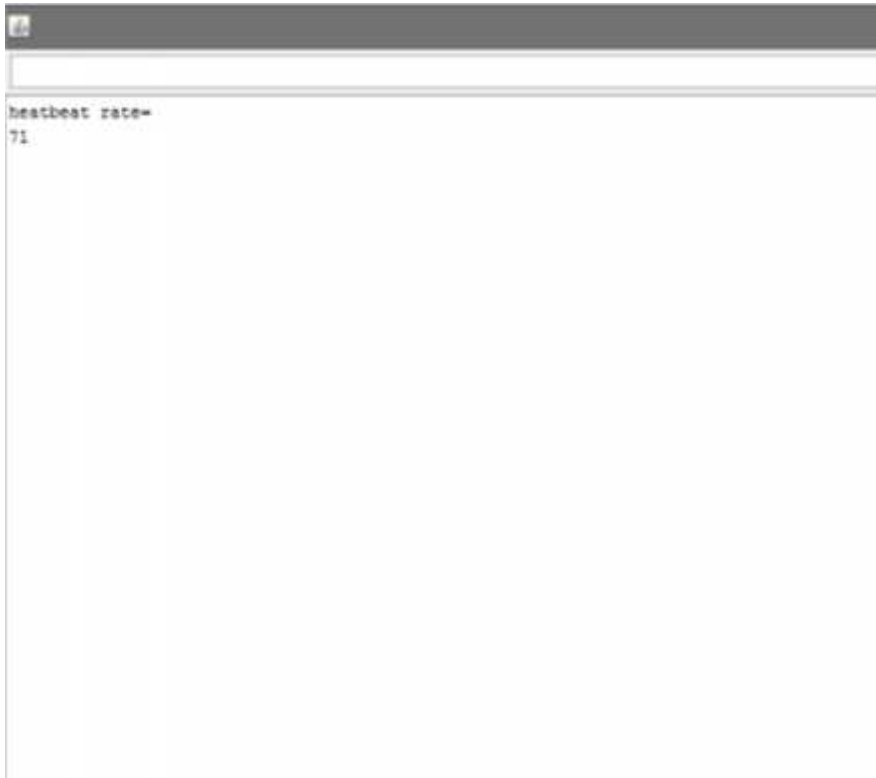
```
int count=0;

void setup() {
  Serial.begin(9600);           // initialize serial communication at 9600 bits per second
  pinMode(8, INPUT);
}

void loop()                    // the loop routine runs over and over again forever:
{
  for(int i=0;i<120;i++)
```

```
{  
  if(digitalRead(8)==0)  
  {  
    count++;  
  }  
  delay(500);  
}  
Serial.println("heartbeat rate=");  
Serial.println(count);  
count=0;  
delay(1); // delay in between reads for stability  
}
```

OUTPUT



```
heartbeat rate=  
71
```

RELATED PRODUCTS

Phototransistor- L14F1



IR Diode-Rx



ATMEL Project Board



PIC project board

