**CODE:**

#include <Wire.h>

#include <LiquidCrystal.h>

LiquidCrystal lcd(2,3,4,5,6,7);

#include "MAX30100\_PulseOximeter.h"

int led =13;

#define REPORTING\_PERIOD\_MS 1000

PulseOximeter pox;

uint32\_t tsLastReport = 0;

void onBeatDetected()

{

Serial.println("Beat!");

}

void setup()

{

lcd.begin(16, 2);

Serial.begin(115200);

Serial.print("Initializing pulse oximeter..");

pinMode(led,OUTPUT);

if (!pox.begin()) {

Serial.println("FAILED");

for(;;);

} else {

Serial.println("SUCCESS");

}

pox.setIRLedCurrent(MAX30100\_LED\_CURR\_7\_6MA);

pox.setOnBeatDetectedCallback(onBeatDetected);

}

void loop()

{

pox.update();

if (millis() - tsLastReport > REPORTING\_PERIOD\_MS) {

Serial.print("Heart rate:");

Serial.print(pox.getHeartRate());

Serial.print("bpm / SpO2:");

Serial.print(pox.getSpO2());

Serial.println("%");

lcd.setCursor(0,0);

lcd.print("Heart rate:");

lcd.setCursor(11,0);

lcd.print(pox.getHeartRate());

lcd.setCursor(0,1);

lcd.print ("bpm / SpO2:");

lcd.setCursor(11,1);

lcd.print(pox.getSpO2());

tsLastReport = millis();

}

if (pox.getHeartRate() >=100){

digitalWrite(led ,HIGH);

}if (pox.getHeartRate() <=100){

digitalWrite(led ,LOW);

}

}

Download link arduino IDE 2.0:

https://docs.arduino.cc/software/ide-v2/tutorials/getting-started/ide-v2-downloading-and-installing