```
#include <Wire.h>
#include "MAX30105.h"

MAX30105 particleSensor;

long unblockedValue; //Average IR at power up

void setup() {

  Serial.begin(9600);

  // Initialize sensor
  if (particleSensor.begin(Wire, I2C_SPEED_FAST) == false) //Use default I2C port,
400kHz speed
  {
    Serial.println("MAX30105 was not found. Please check wiring/power. ");
    while (1);
  }

byte ledBrightness = 0xFF; //Options: 0=Off to 255=50mA
  byte sampleAverage = 4; //Options: 1, 2, 4, 8, 16, 32
  byte ledMode = 2; //Options: 1 = Red only, 2 = Red + IR, 3 = Red + IR + Green
  int sampleRate = 400; //Options: 50, 100, 200, 400, 800, 1000, 1600, 3200
  int pulseWidth = 411; //Options: 69, 118, 215, 411
  int adcRange = 2048; //Options: 2048, 4096, 8192, 16384

  particleSensor.setup(ledBrightness, sampleAverage, ledMode, sampleRate,
pulseWidth, adcRange); //Configure sensor with these settings

  particleSensor.setPulseAmplitudeRed(0); //Turn off Red LED
  particleSensor.setPulseAmplitudeGreen(0); //Turn off Green LED

  //Take an average of IR readings at power up
  unblockedValue = 0;
  for (byte x = 0 ; x < 32 ; x++)
  {
    unblockedValue += particleSensor.getIR(); //Read the IR value
  }
  unblockedValue /= 32;


}

void loop() {
    long currentDelta = particleSensor.getIR() - unblockedValue;
```

```
    if (currentDelta > (long)10)
  {
    Serial.print(" Something is there!");
  }


}
```