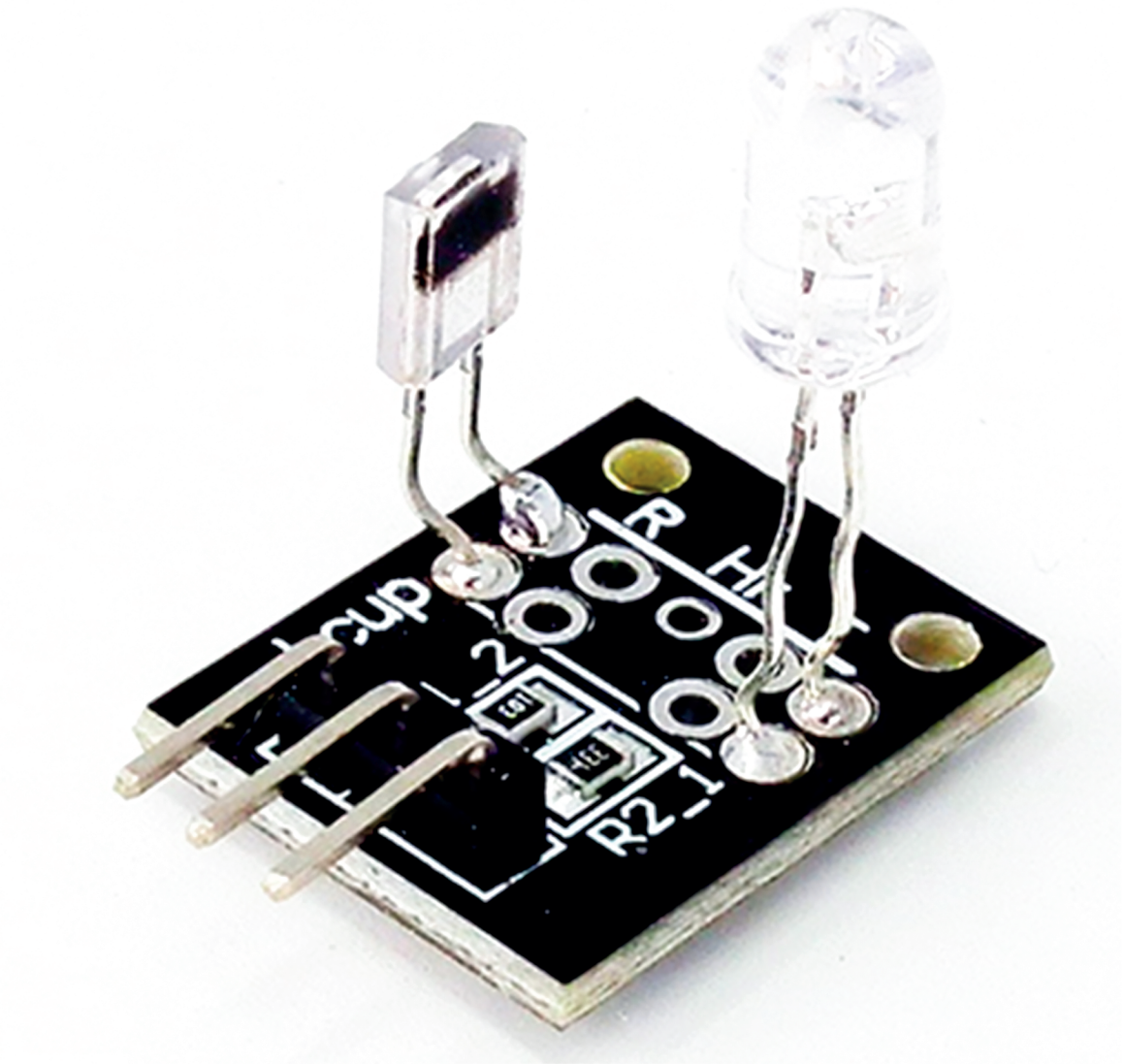
AZ-Delivery
Ihr Experte für Mikroelektronik!

KY-039 Heartbeat Sensor Modul Datenblatt



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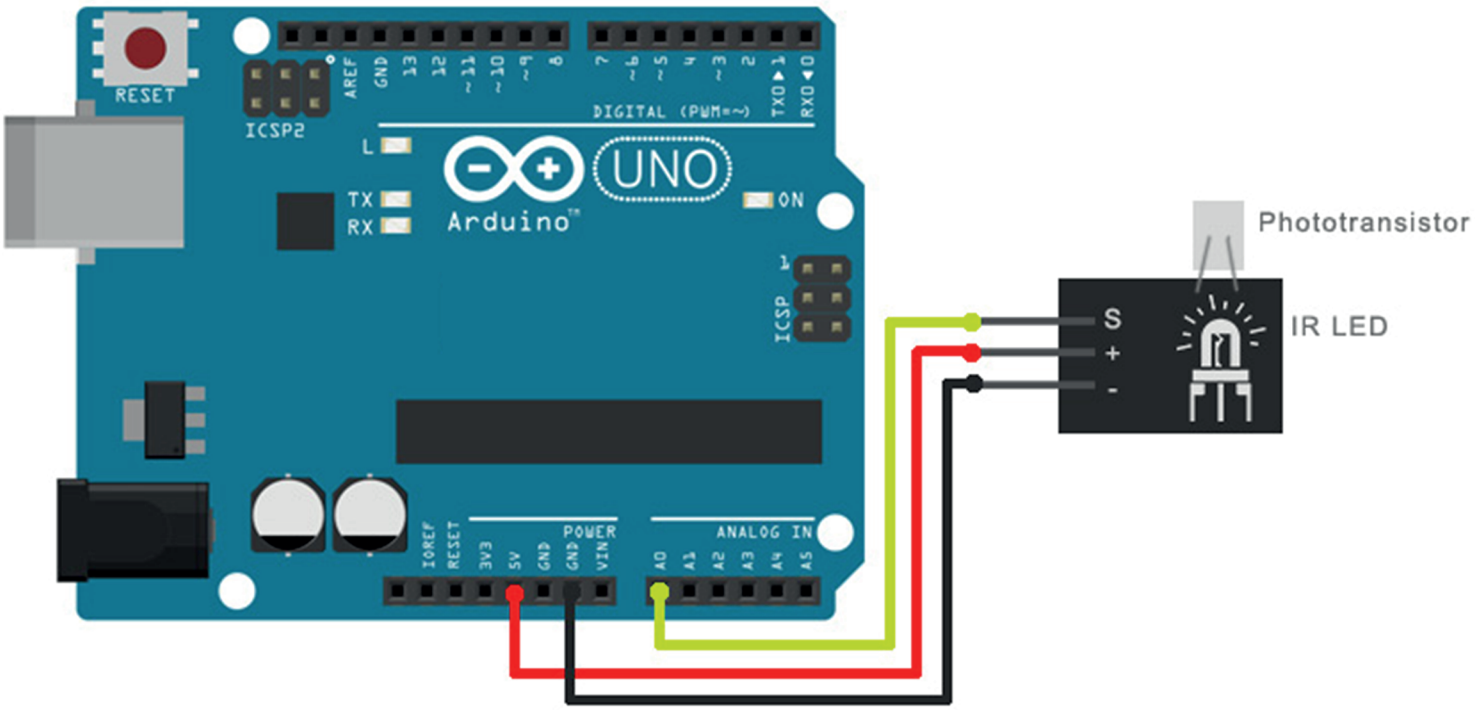
1. Description

The KY-039 Heartbeat Detector uses a very high resistance resistor R1, because most of the light through the finger is absorbed, it is desirable that the phototransistor is sensitive enough. The most important is to keep the shield stray light into the phototransistor. For home lighting that is particularly important because the lights at home mostly based 50HZ or 60HZ fluctuate, so faint heartbeat will add considerable noise. Pulse monitor works as follows: The LED is the light side of the finger, and phototransistor on the other side of the finger, phototransistor used to obtain the flux emitted, when the blood pressure pulse by the finger when the resistance of the photo transistor will be slightly changed.

2. Connecting

- Sensor pin S connect to Arduino pin Analoog 0 / A0
- Sensor pin + (middle pin) connect to Arduino pin 5+
- Sensor pin – connect to Arduino pin GND



3. Example Code

```
// Pulse Monitor Test Script
int sensorPin = 0;
double alpha = 0.75;
int period = 100;
double change = 0.0;
double minval = 0.0;
void setup ()
{
  Serial.begin (9600);
}
void loop ()
{
    static double oldValue = 0;
    static double oldChange = 0;

    int rawValue = analogRead (sensorPin);
    double value = alpha * oldValue + (1 - alpha) * rawValue;

    Serial.print (rawValue);
    Serial.print (",");
    Serial.println (value);
    oldValue = value;

    delay (period);
}
```