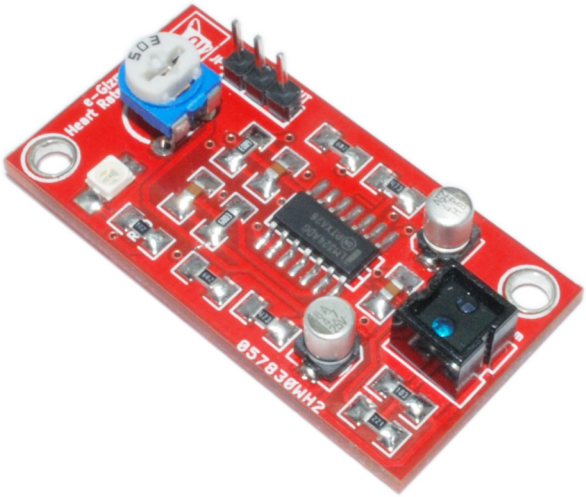
Heart Rate Monitor kit

Technical Manual Rev 1r0



The e-Gizmo Heart Rate Monitor kit a simple pulse sensor to your finger tip and ready to read your heart rate. A very useful design for studying your activity and monitoring your heart beat to have a live heart-rate data like medical equipment for your project.

FEATURES:
- With Pulse indicator
- High signal output
- Pulse sensor on board
- Compatible in all gizDuino MCU boards

GENERAL SPECIFICATION:

- **Supply Input:** +5V DC
- **On board IC peripheral:** LM324
- **On board sensor:** CNY70
- **Sensing Distance:** 0.3 mm
- **PCB Dimension:** 44 mm x 23 mm

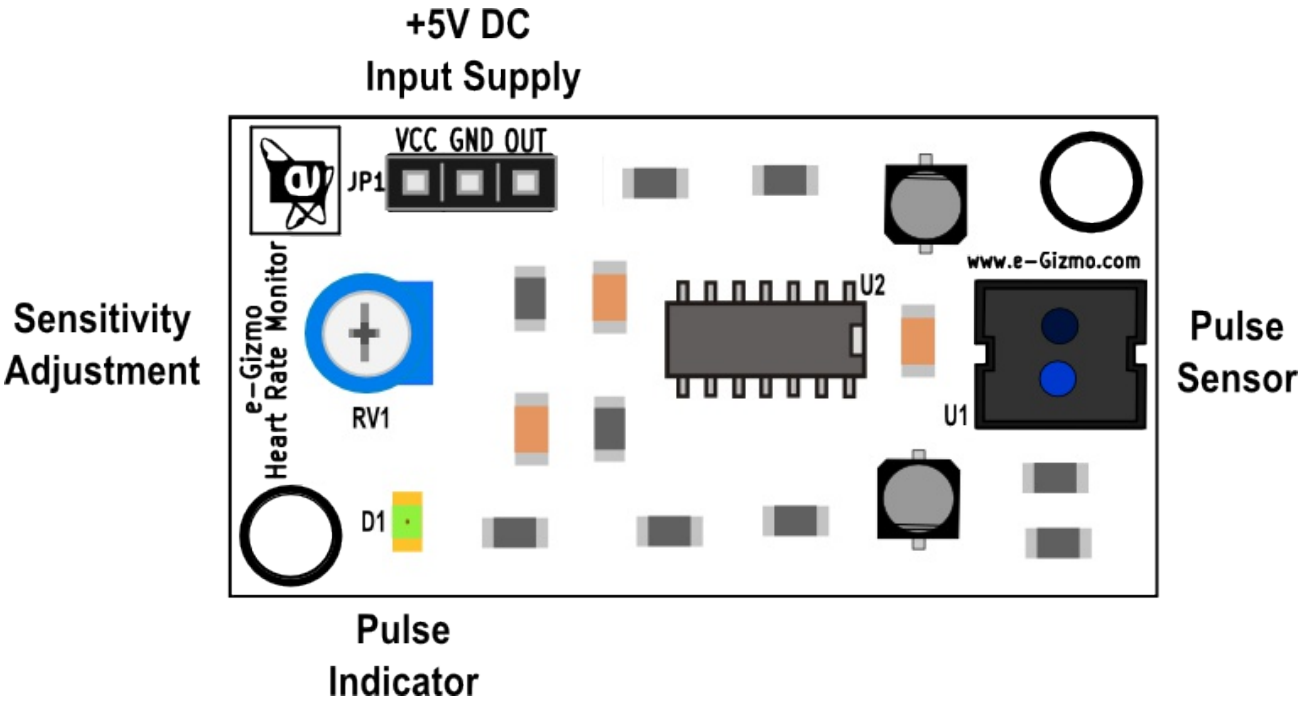


Figure 1. Major parts presentation of e-Gizmo Heart Rate Monitor kit

Table 1. ***JP1*** connections and descriptions

PIN Name	Descriptions
VCC	+ 5V DC Supply Input
GND	Ground connection
OUT	Analog Output connection

Figure 2. *JP1 Illustration*

Figure 3. *RV1 Illustration*

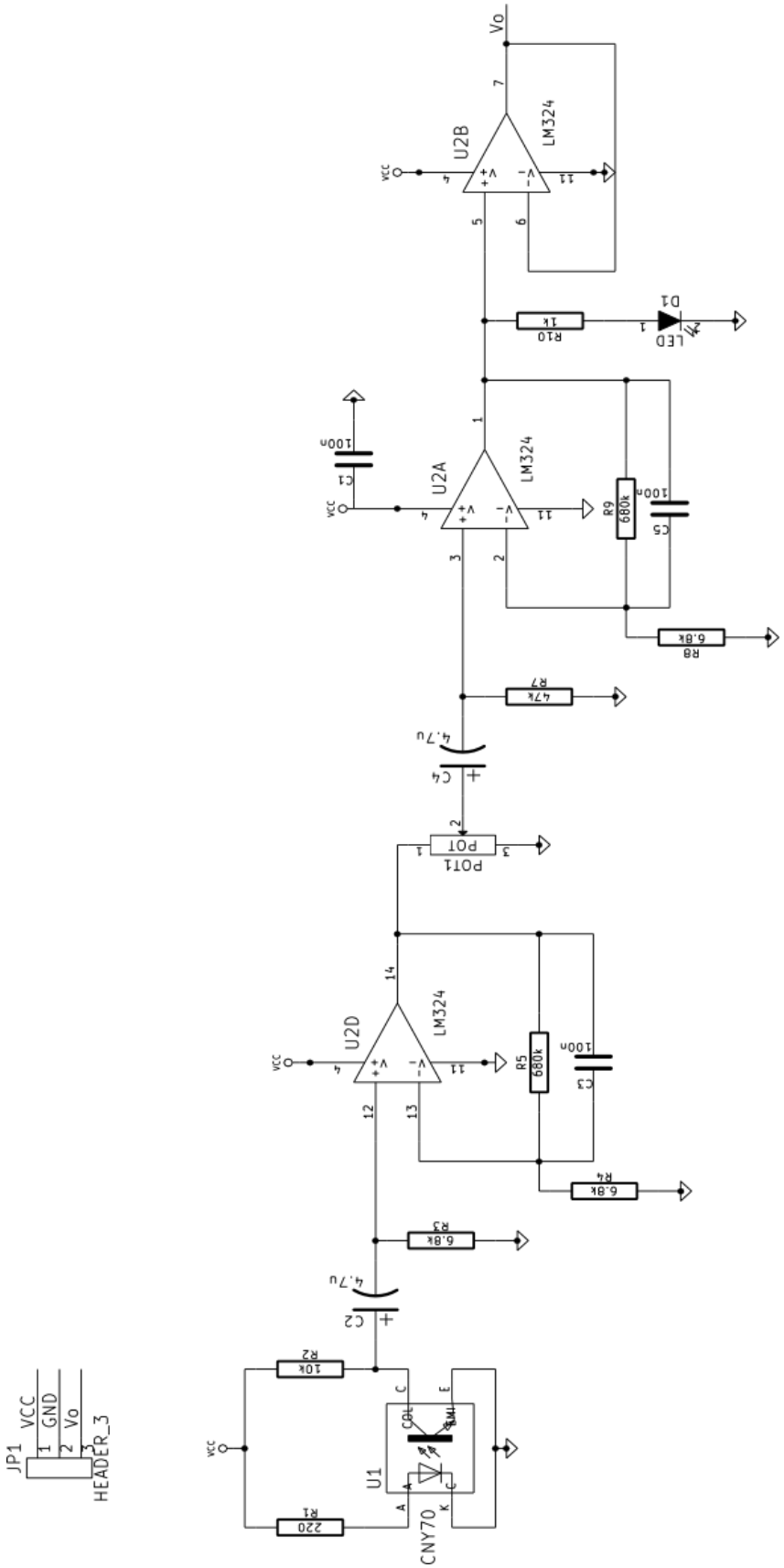


Figure 4. *Schematic Diagram of e-Gizmo Heart Rate Monitor kit*

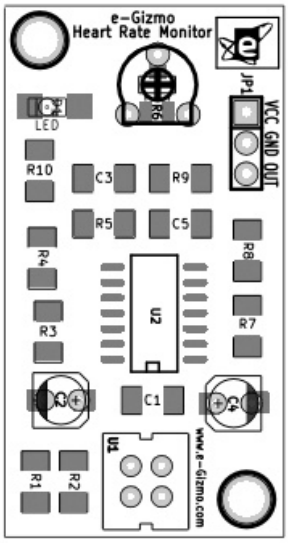


Figure 5. *Parts Placement*

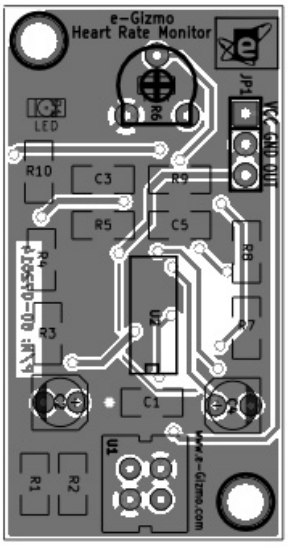


Figure 6. *BottomPCBGuide*

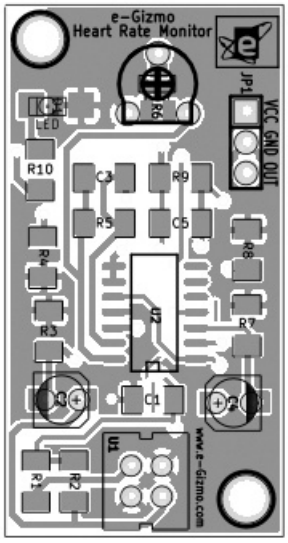
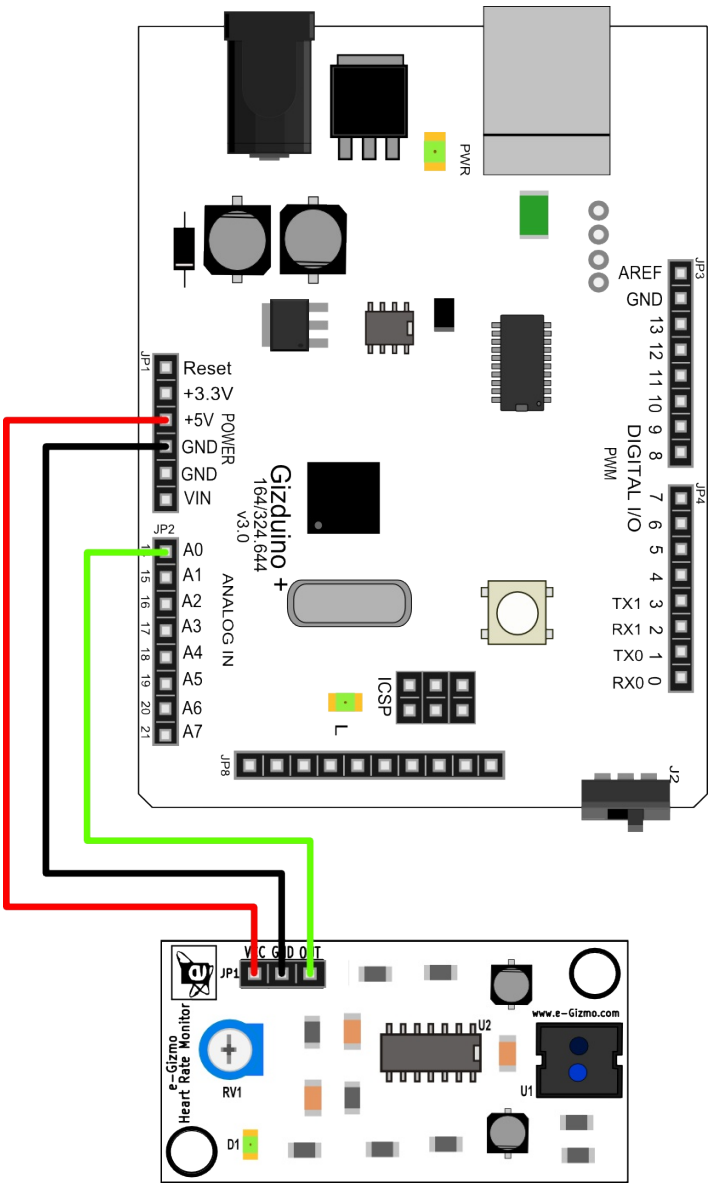


Figure 7. *TopPCBGuide*



Sample Codes

```
/*
  e-Gizmo Heart Rate Monitor kit

  This sample code reads an analog input on pin 0,
 and prints the result to the serial monitor.

  This example code is in the public domain.

  by:
  e-Gizmo Mechatronix Central
  http://www.e-gizmo.com
  August 30, 2014

 */
// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits
   per second:
  Serial.begin(9600);
}

// the loop routine runs over and over again forever:
void loop() {
  // read the input on analog pin 0:
  int PulseSensor = analogRead(A0);
  // Convert the analog reading (which goes from
  0 - 1023) to a voltage (0 - 5V):
  //float voltage = PulseSensor * (5.0 / 1023.0);
  // print out the value you read:
  Serial.print("PulseSensor Reading  = ")
  Serial.println(PulseSensor);
}
```

Figure 8. *Sample Application of e-Gizmo Heart Rate Monitor kit with Sample codes.*