Ks0187 keyestudio ACS712-5A Current Sensor

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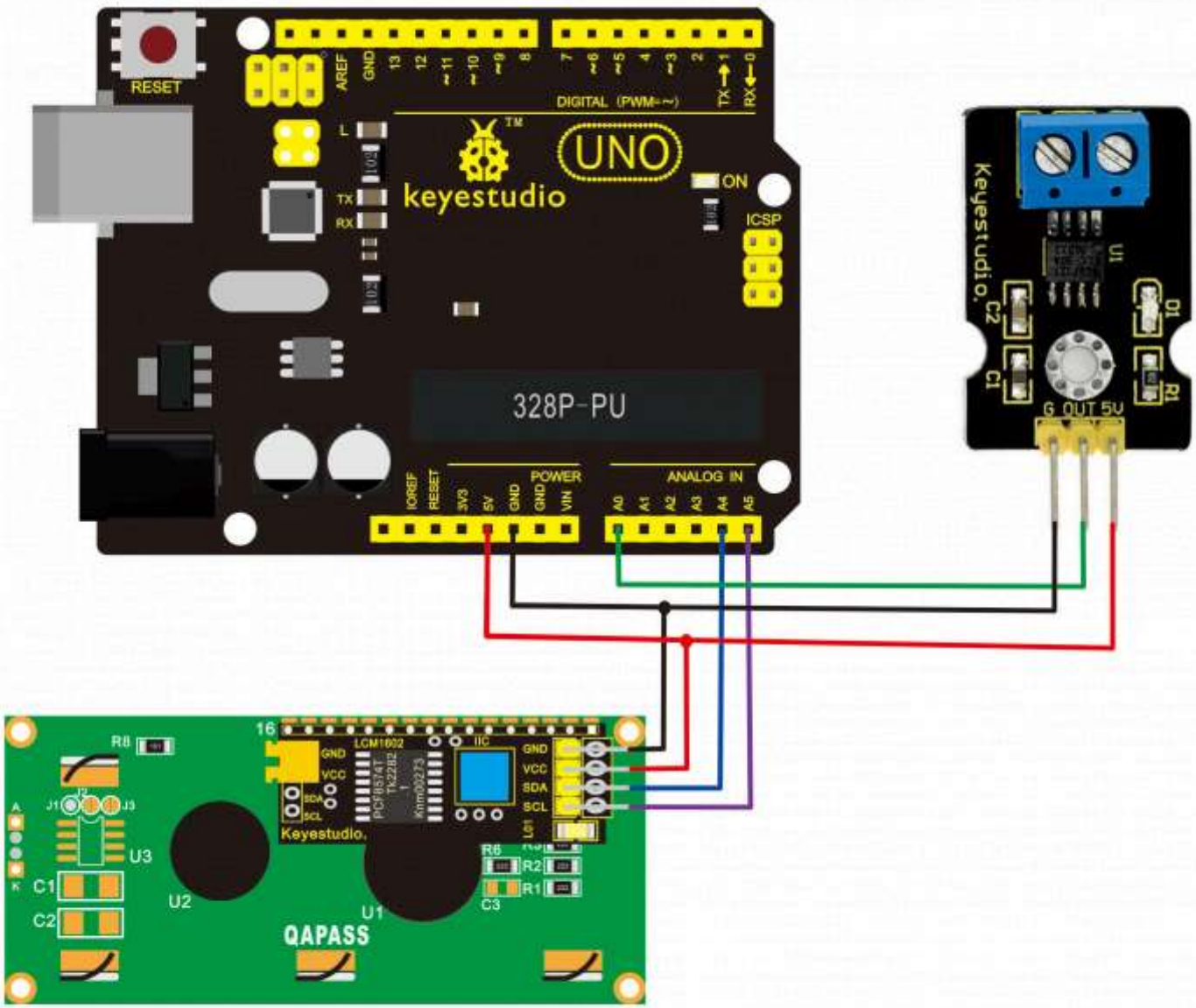
Introduction

ACS712-5A Current Sensor is used to measure the intensity of current. It contains ACS712ELC-5B chip, based on Hall Effect. You should protect it from influence of magnetic field when using it.

Parameters

- Chip:ACS712ELC-5B
- 5V Power Supply and Power Indicator On-board
- This module can detect 5A positive and negative current,corresponding analog output at 185mV/A.
- Output voltage is VCC/2 without current flowing

Connection Diagram


RESET
AREF
GND
DIGITAL (PWM=~)
TX
RX
keyestudio
UNO
ON
ICSP
328P-PU
POWER
ANALOG IN
IOREF
RESET
3V3
5V
GND
GND
VIN
A0
A1
A2
A3
A4
A5
Keyestudio.
G OUT 5V
LCM1602
IIC
GND
VCC
SDA
SCL
Keyestudio.
QAPASS
U1
U2
U3
C1
C2
C3
R1
R2
R6
R8

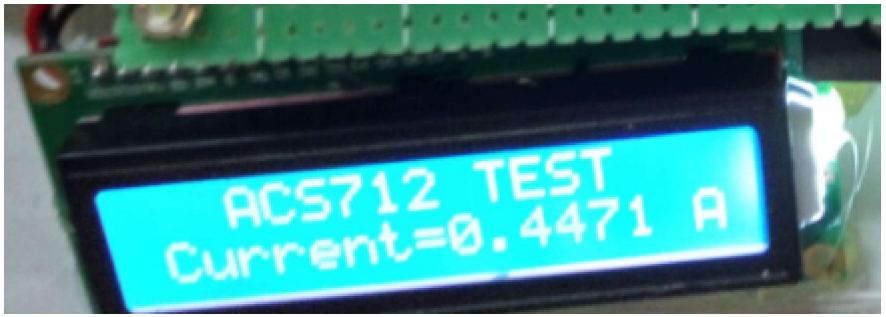
Sample Code

```
#include <Wire.h>  //invoking I2Clibraries coming with Arduino
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27,16,2);

int temp;

// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits per second:
  lcd.init();
    delay(100);
    lcd.backlight();
    Wire.begin();  //initializing I2C
    lcd.clear(); //clear screen

    delay(100);
    lcd.setCursor(2,0);
    lcd.print("ACS712 TEST");
    delay(200);
  Serial.begin(9600);
}
// the loop routine runs over and over again forever:
void loop() {
  // read the input on analog pin 0:
  float current = analogRead(A0);
  temp=current;
  temp=temp-512;
  current=temp/35.8;
  //lcd.clear(); //clear screen
  // print out the value you read:
  Serial.print("current=");
  Serial.print(current);
  Serial.println("A");
  lcd.setCursor(0,1);
    lcd.print("Current=");
    lcd.setCursor(8,1);
    lcd.print(current);
    lcd.setCursor(15,1);
    lcd.print("A");
  delay(300);        // delay in between reads for stability
}
```

Download Address of Wire and LiquidCrystal_I2C Libraries:
https://drive.google.com/open?id=1JUS0I9U2N30nYCxN323SlGm9Ywm_GRp2

Result

In order to display data conveniently, add I2C LCD1602 Module. Then upload program and connect wires. After plugging in power, LED on this sensor is on and I2C LCD1602 Module displays the current intensity shown as below.



Resources

- **Code and Libraries**

https://fs.keyestudio.com/KS0187

Buy from

- **Official Website** (https://www.keyestudio.com/free-shipping-keyestudio-acs712-5a-current-sensor-for-arduino-compatible-p0165.html)
- **Aliexpress store** (https://www.aliexpress.com/store/product/Free-shipping-keyestudio-ACS712-5A-Current-Sensor-for-Arduino-Compatible/1452162_32783138097.html?spm=2114.12010612.8148356.55.4e475ec9dqn8oT)

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