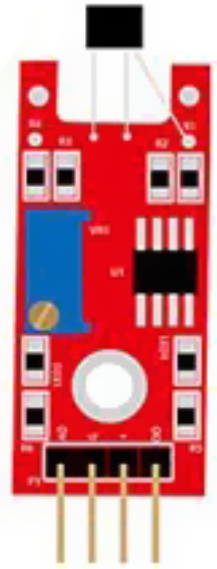
Hall Magnetic Sensor Module



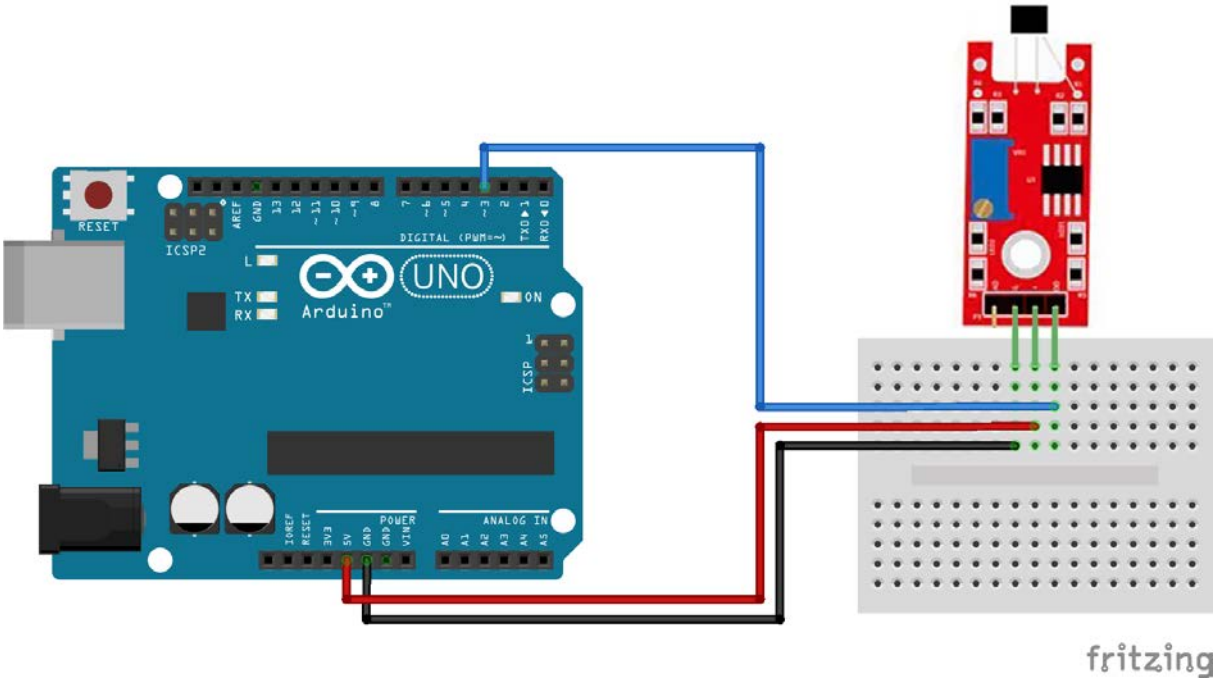
Hall Magnetic Sensor Module is a switch that will turn on/off in the presence of a magnetic field.

The module has one analog output (AO) and one digital (DO). The analog output will increase voltage with magnetic field. The digital output will switch when magnetic field is above a set level.

The threshold for the digital output can be adjusted with the potentiometer.

Pinout and Connection to Arduino

Connect the Power line (middle) and ground (-) to +5 and GND respectively. Connect signal (s) to pin 3 on the Arduino.



Arduino Example Sketch

The following example sketch will light up the LED on pin 13 when a magnetic field is detected.

```
int led = 13;//LED pin
int sensor = 3; //sensor pin
int val; //numeric variable

void setup()
{
        pinMode(led, OUTPUT); //set LED pin as output
        pinMode(sensor, INPUT); //set sensor pin as input
}

void loop()
{
        val = digitalRead(sensor); //Read the sensor
        if(val == HIGH) //when magnetic field is detected, turn led on
        {
                digitalWrite(Led, HIGH);
        }
        else
        {
                digitalWrite(Led, LOW);
        }
}
```

The following Arduino Sketch will output the value from the analog output via serial monitor and blink the LED according to the magnetic field strength.

```
int sensorPin = A5; // select the input pin for A0
int ledPin = 13; // select the pin for the LED
int sensorValue = 0; // variable to store the value coming from the sensor

void setup ()
{
  pinMode (ledPin, OUTPUT);
  Serial.begin (9600);
}

void loop ()
{
  sensorValue = analogRead (sensorPin);
  digitalWrite (ledPin, HIGH);
  delay (sensorValue);
  digitalWrite (ledPin, LOW);
  delay (sensorValue);
  Serial.println (sensorValue, DEC);
}
```