

# How to use SS49E Linear Hall-Effect Sensor

[1. Description](#)

[2. Wiring](#)

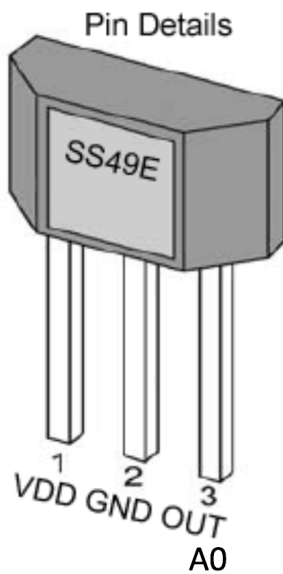
[3. Upload sample code](#)

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## 1. Description

It can measure both north and south polarity of a magnetic field and the relative strength of the field.

## 2. Wiring



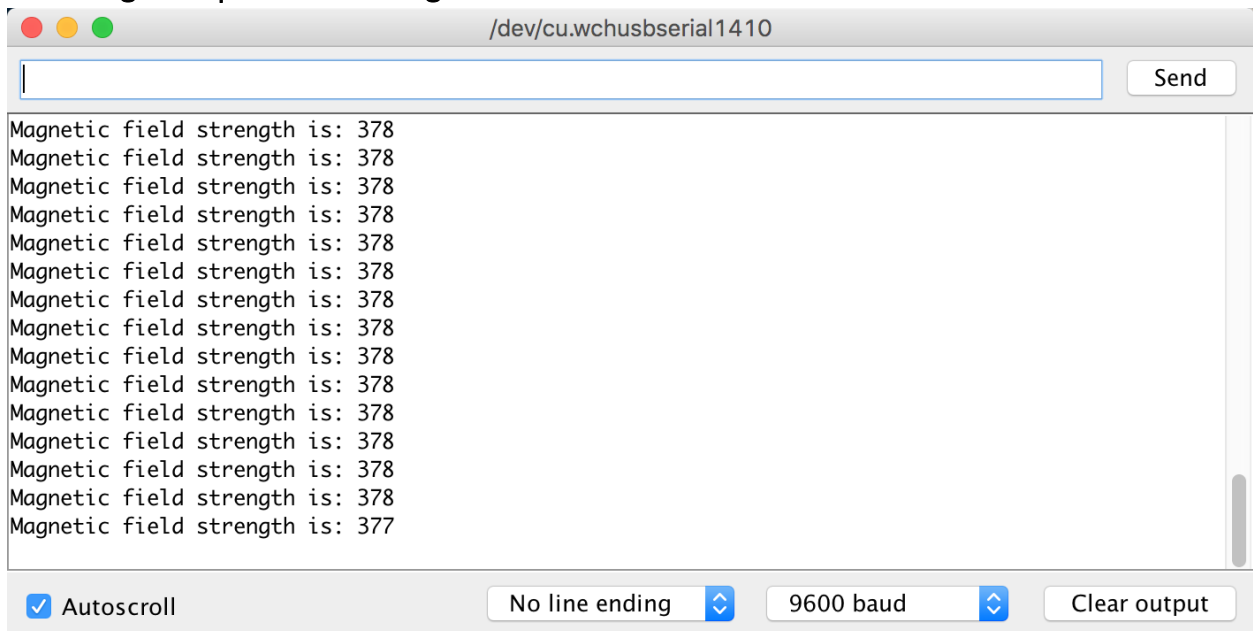
1. VDD → 3V
2. GND → Ground
3. OUT → A0

### 3. Upload sample code

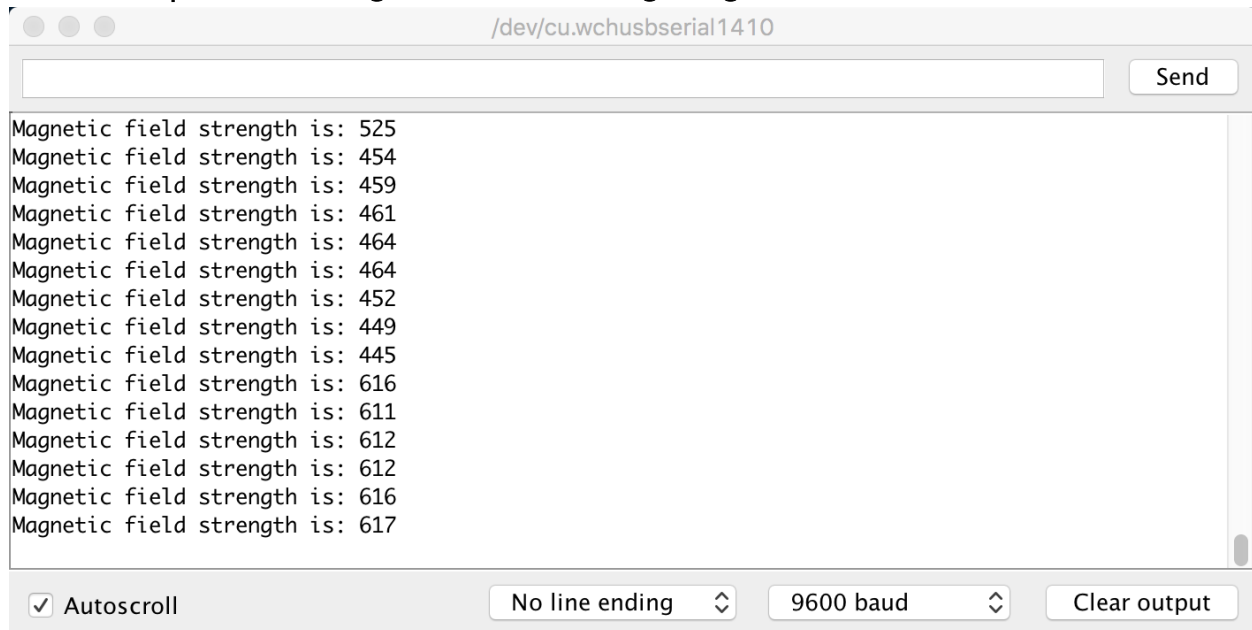
```
int mag_strength;  
int sensor_pin = A0;  
  
void setup() {  
  Serial.begin(9600);  
}  
  
void loop() {  
  mag_strength = analogRead(sensor_pin);  
  Serial.print("Magnetic field strength is: ");  
  Serial.println(mag_strength);  
  delay(200);  
}
```

### 4. How to interpret the reading

If no magnet is present, reading is at constant vale, around 300.



If the north pole of the magnet is close, reading will go above the stable value (378).

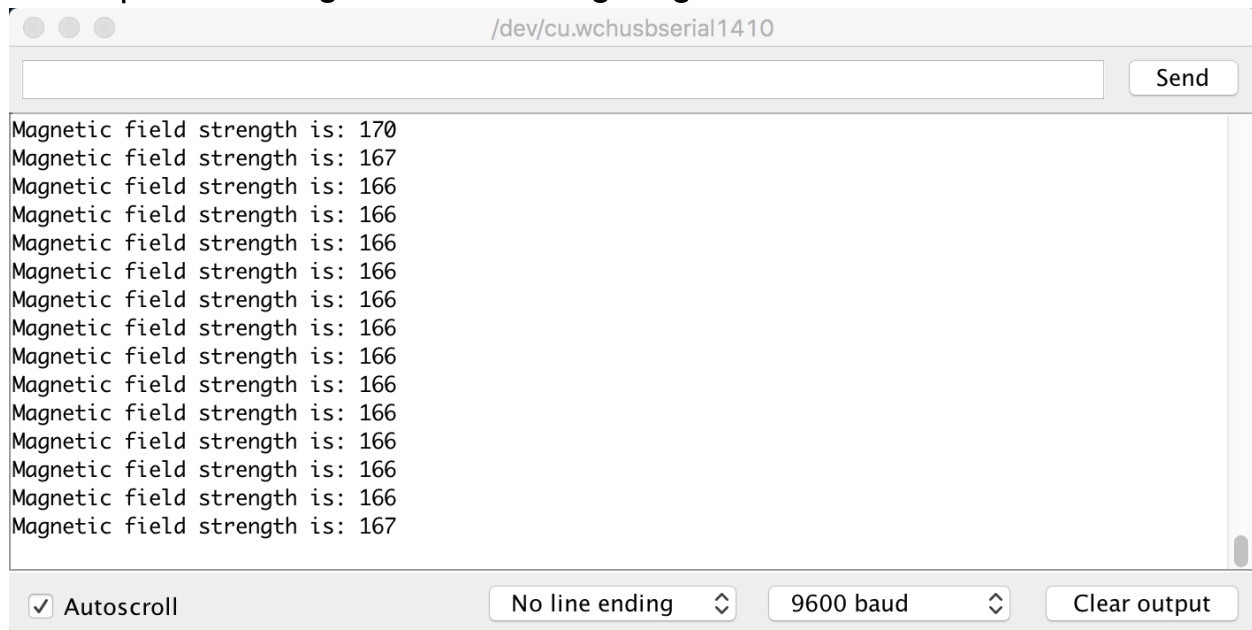


The screenshot shows a serial terminal window titled "/dev/cu.wchusbserial1410". It features a text input field at the top with a "Send" button. The main area displays a list of 15 lines of text, each starting with "Magnetic field strength is:". The values are: 525, 454, 459, 461, 464, 464, 452, 449, 445, 616, 611, 612, 612, 616, and 617. At the bottom, there are four controls: a checked "Autoscroll" checkbox, a "No line ending" dropdown menu, a "9600 baud" dropdown menu, and a "Clear output" button.

```
Magnetic field strength is: 525
Magnetic field strength is: 454
Magnetic field strength is: 459
Magnetic field strength is: 461
Magnetic field strength is: 464
Magnetic field strength is: 464
Magnetic field strength is: 452
Magnetic field strength is: 449
Magnetic field strength is: 445
Magnetic field strength is: 616
Magnetic field strength is: 611
Magnetic field strength is: 612
Magnetic field strength is: 612
Magnetic field strength is: 616
Magnetic field strength is: 617
```

☒ Autoscroll    No line ending    9600 baud    Clear output

If south pole of the magnet is close, reading will go below the stable value (378).



The screenshot shows a serial terminal window titled "/dev/cu.wchusbserial1410". It features a text input field at the top with a "Send" button. The main area displays a list of 15 lines of text, each starting with "Magnetic field strength is:". The values are: 170, 167, 166, 166, 166, 166, 166, 166, 166, 166, 166, 166, 166, 166, and 167. At the bottom, there are four controls: a checked "Autoscroll" checkbox, a "No line ending" dropdown menu, a "9600 baud" dropdown menu, and a "Clear output" button.

```
Magnetic field strength is: 170
Magnetic field strength is: 167
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 166
Magnetic field strength is: 167
```

☒ Autoscroll    No line ending    9600 baud    Clear output