How to use
SS49E Linear Hall-Effect Sensor

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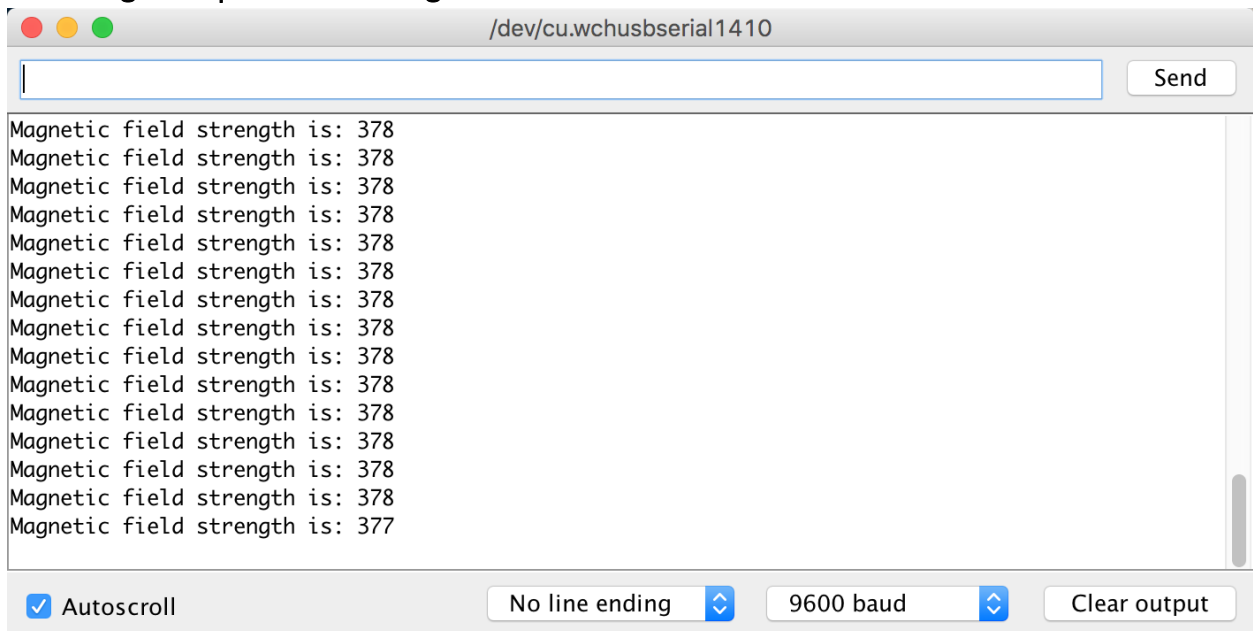
2. Wiring

Pin Details
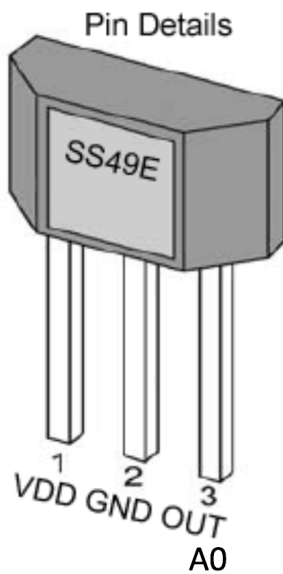
1. VDD → 3V

2. GND → Ground

3. OUT → A0

1   2   3
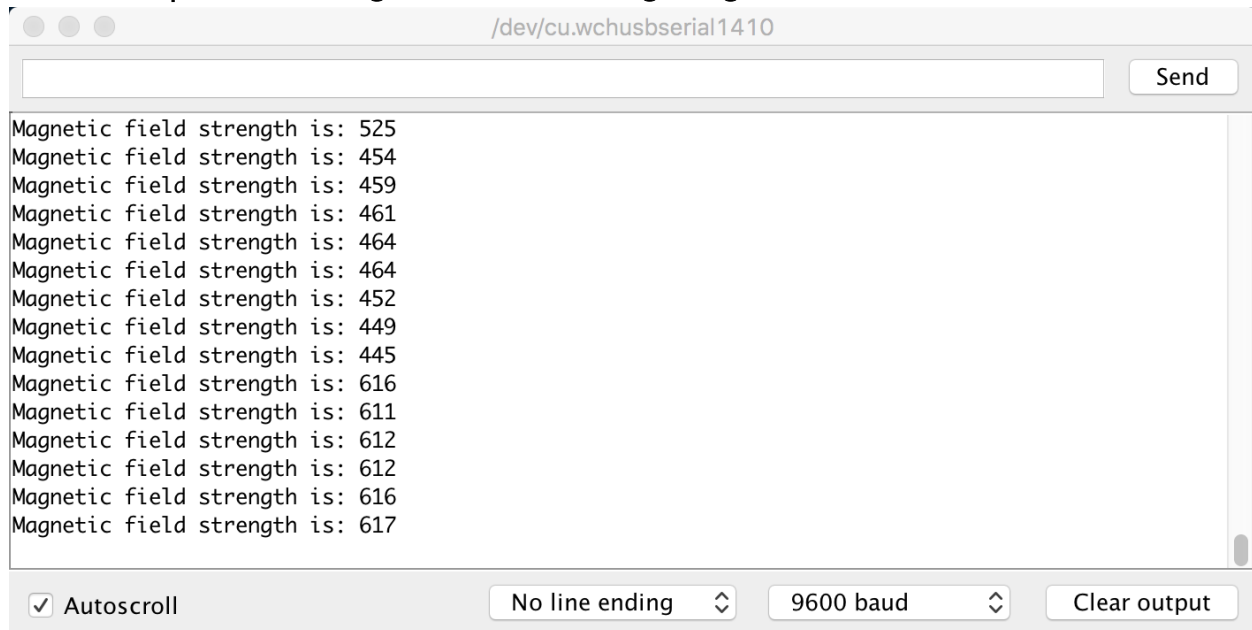VDD GND OUT
        A0

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.

```
/dev/cu.wchusbserial1410

                                                    Send

Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 378
Magnetic field strength is: 377

☑ Autoscroll        No line ending    9600 baud    Clear output
```

If the north pole of the magnet is close, reading will go <u>above</u> the stable value (378).
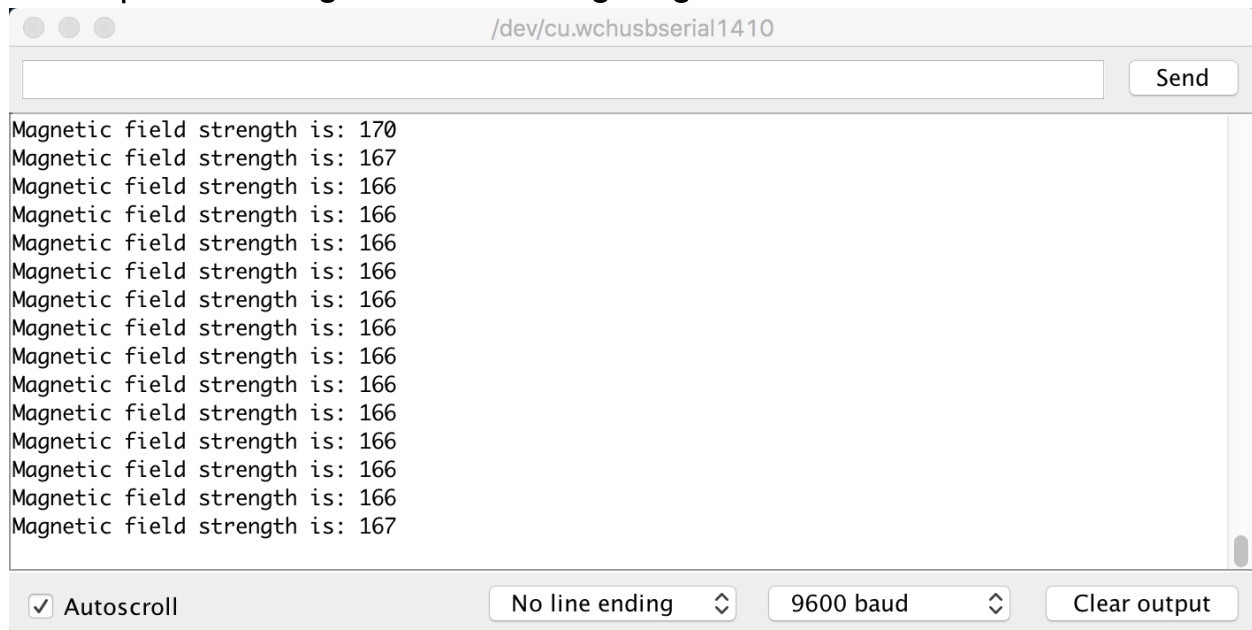
```
●  ●  ●                    /dev/cu.wchusbserial1410

[                                                    ]  [ Send ]

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 <u>below</u> the stable value (378).

```
●  ●  ●                    /dev/cu.wchusbserial1410

[                                                    ]  [ Send ]

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
```