

## USING A POTENTIOMETER

A potentiometer is a knob that provides a variable resistance. We can read in this resistance through the analog pins of the Arduino.

### INSTRUCTIONS:

Connect the following circuit.

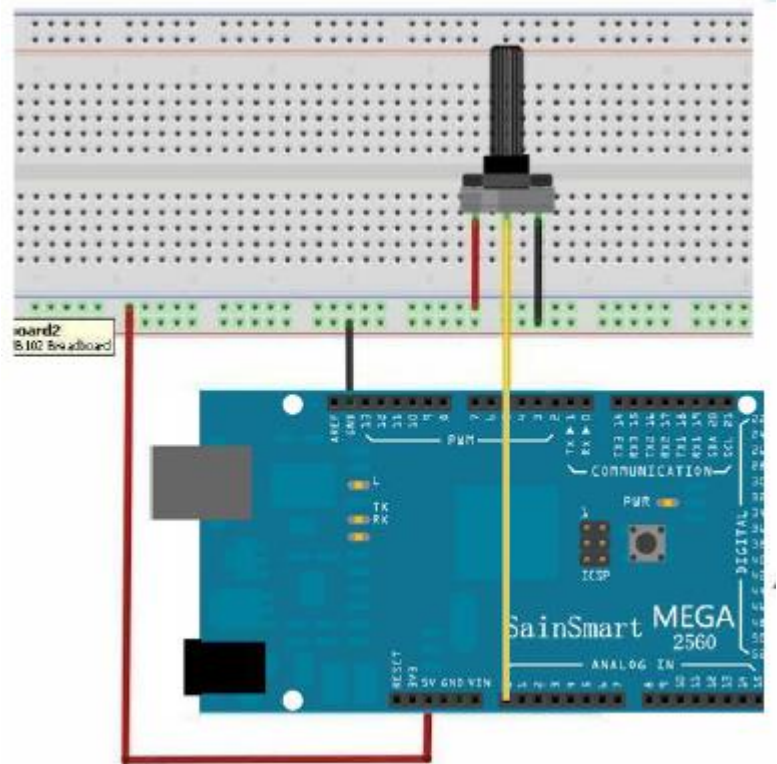
Tips:

Left pin of potentiometer goes to 5V, center pin of potentiometer goes to Analog 0 pin, right pin of potentiometer goes to ground.

```
int potPin = 0;
int potVal = 0;

void setup()
{Serial.begin(9600);}

void loop(){
  potVal = analogRead(potPin);
  Serial.println (potVal);
}
```



In order to see the effects click Tools... Serial Monitor and turn the potentiometer knob.

Now add the following: a wire from Pin 11 to LED to resistor to GND

Alter your code to the following:

```
int potPin = 0;
int potVal = 0;
int ledPin = 11;

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

void loop(){
  potVal = analogRead(potPin);
  analogWrite(ledPin, potVal/4);
  Serial.println (potVal);
}
```

View the potentiometer value being read in by looking at the Serial Monitor (click Tools... Serial Monitor)