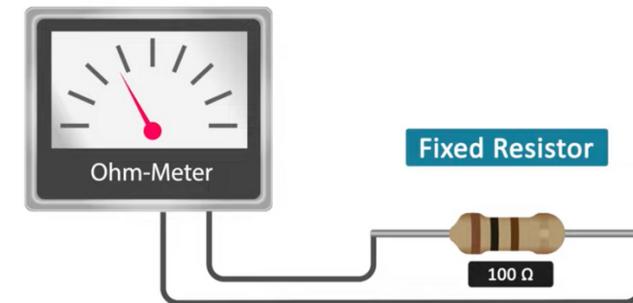
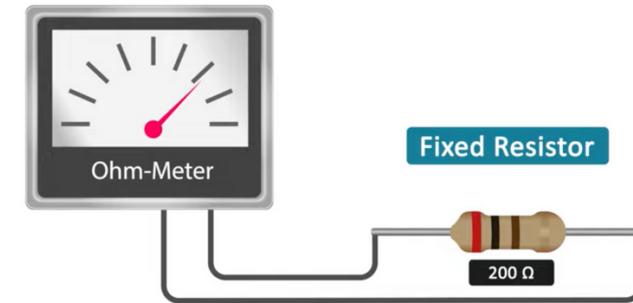
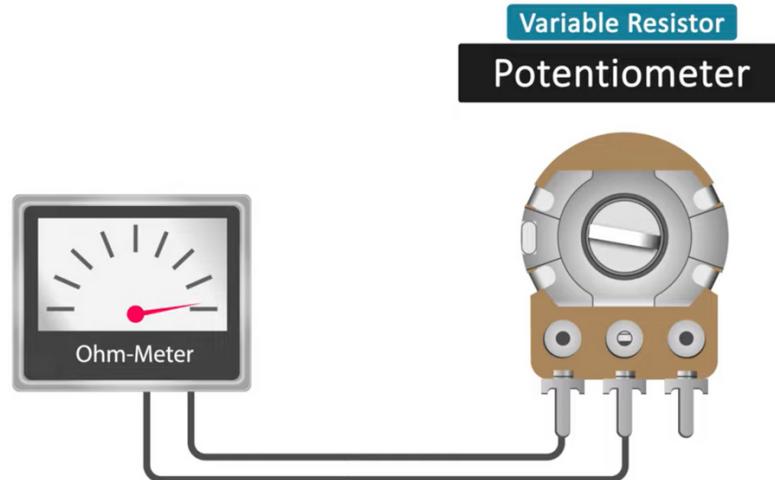


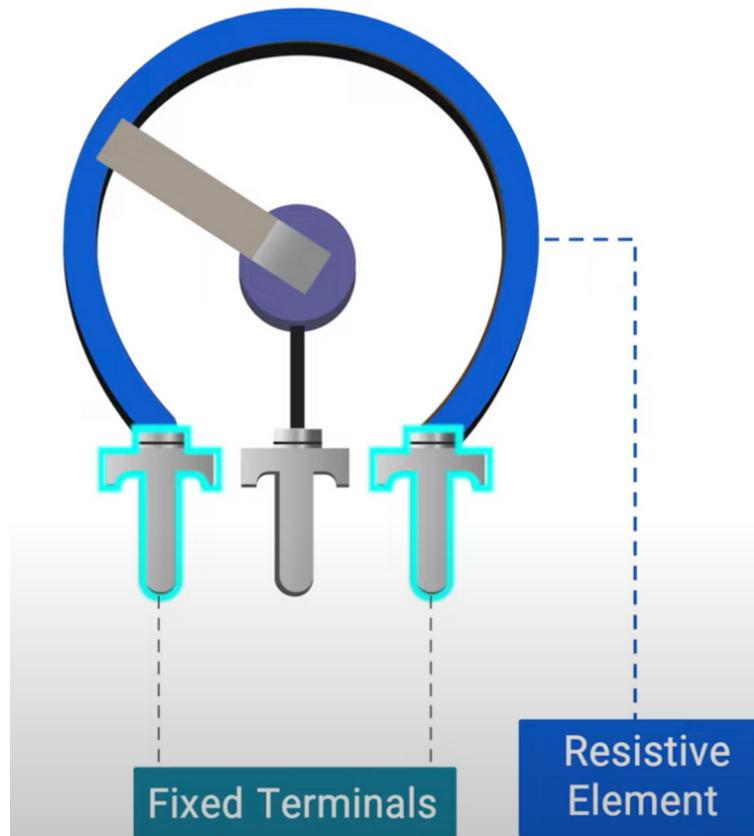
Potentiometer

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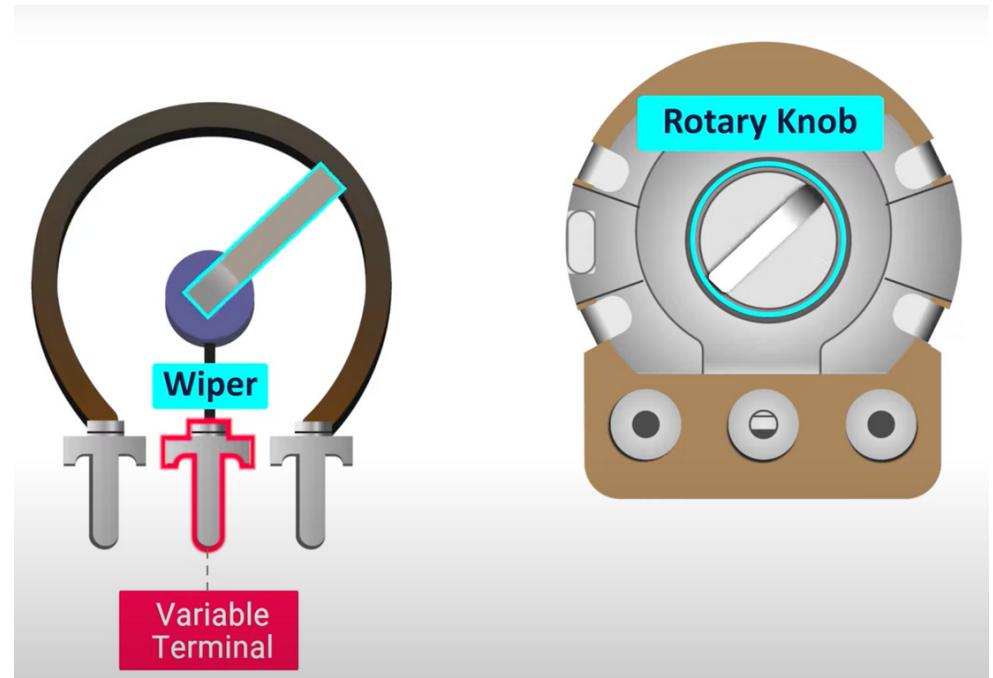




Manually adjustable variable resistor



Responsible for establishing
Electrical resistance



Make Wiper run across resistive element
and make good electrical contact



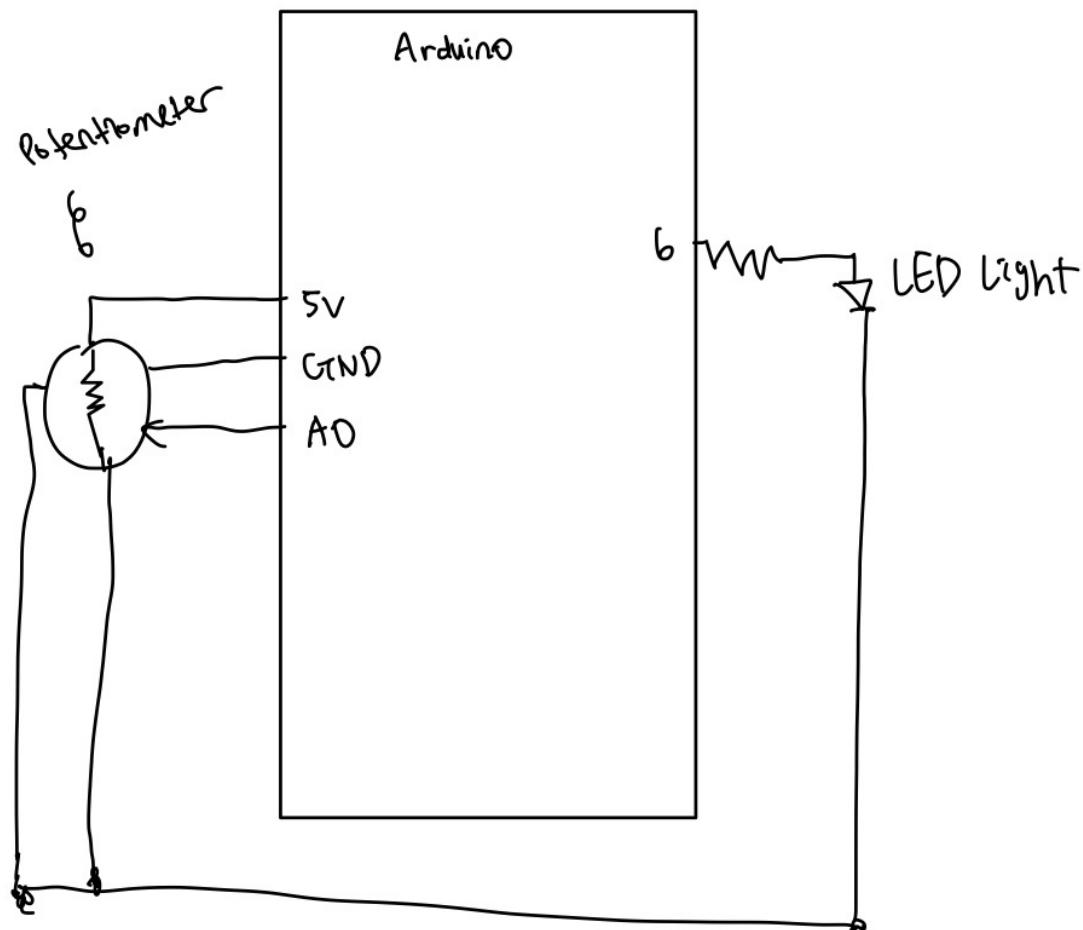
2 outer terminals to multimeter
Check the maximum resistance



1 middle terminal & 1 outer terminal
Resistance change over the
position of wiper

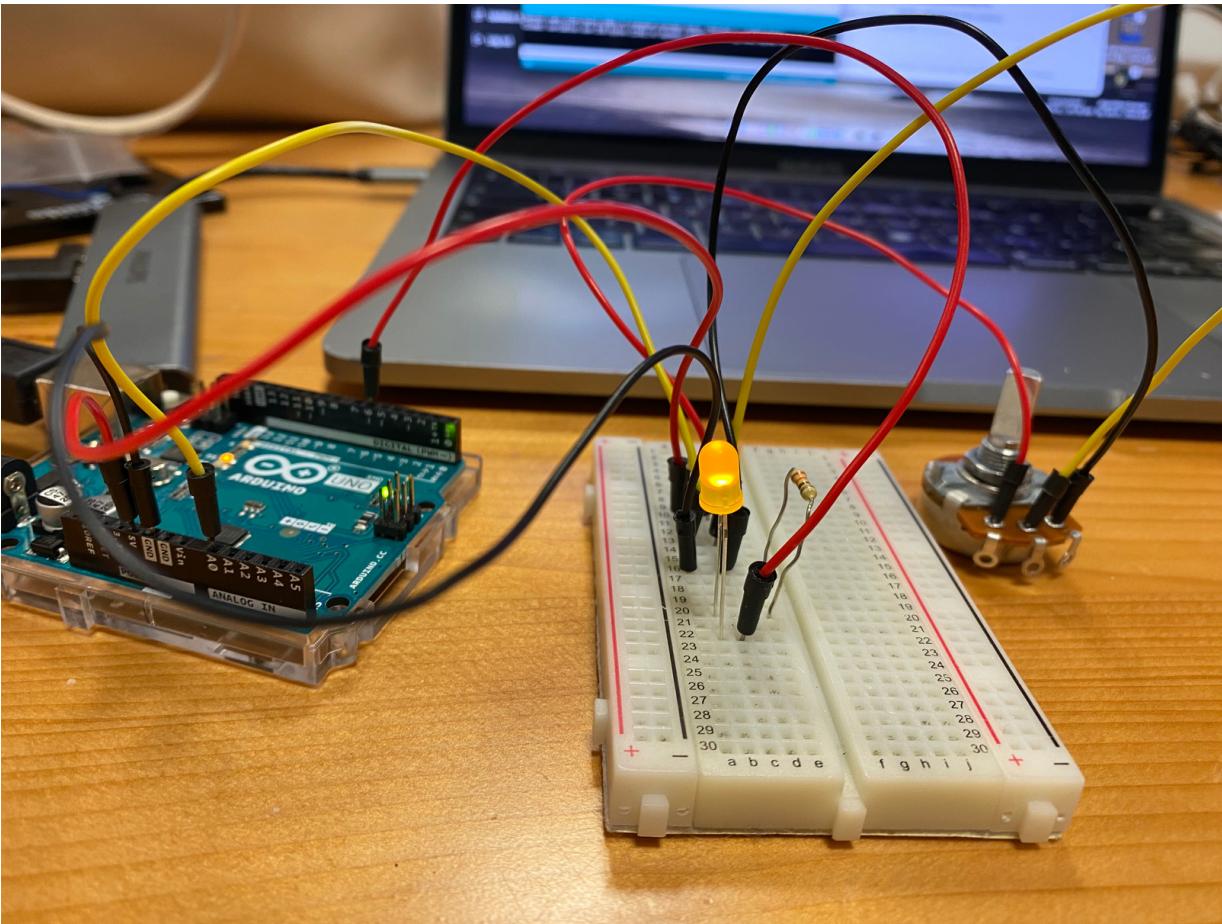


Total : 10 kΩ

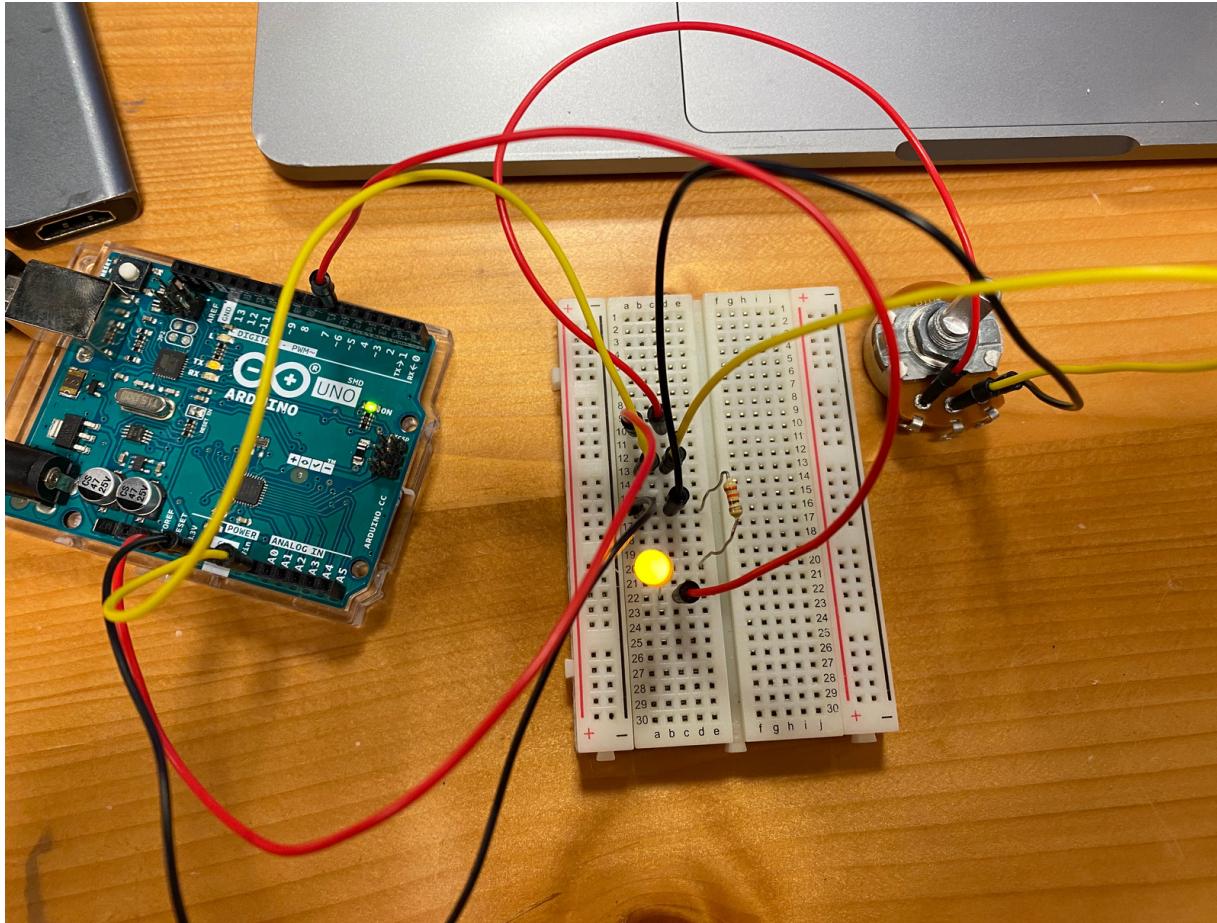


Using Potentiometer to
control LED Brightness

Schematic



Using Potentiometer to
control LED Brightness



Using Potentiometer to
control LED Brightness

```
int pot;
int led;

void setup() {
    pinMode(A0, INPUT);
    pinMode(6, OUTPUT);

    Serial.begin(9600); // Start serial communication
}

void loop() {
    pot = analogRead(A0);
    led = map(pot, 0, 1023, 0, 255);

    analogWrite(6, led);

    // Print the values of pot and led to the serial monitor
    Serial.print("Potentiometer Output: ");
    Serial.print(pot);
    Serial.print(" | Brightness Value: ");
    Serial.println(led);

    delay(100); // Delay for readability
}
```

Arduino Code