**Potentiometer with an Arduino Uno**

**Components Needed**

1. **Arduino Uno**
2. **Potentiometer** (10kΩ is a common value)
3. **Breadboard** (optional)
4. **Jumper wires**
5. **Resistor** (optional, for pull-down/pull-up configurations)

### Circuit Diagram

Here’s how to connect the potentiometer to the Arduino Uno:

**Wiring Instructions**

1. **Connect the potentiometer:**
   * **First Pin (Left)**: Connect to **5V** on the Arduino.
   * **Second Pin (Middle)**: Connect to **A0** (Analog Input Pin) on the Arduino.
   * **Third Pin (Right)**: Connect to **GND** on the Arduino.

**Arduino Code**

// Define the pin where the potentiometer is connected

const int potPin = A0; // Analog pin A0

void setup() {

// Start the Serial communication

Serial.begin(9600); // Open serial port at 9600 bps

}

void loop() {

// Read the value from the potentiometer

int potValue = analogRead(potPin); // Read the analog input (0-1023)

// Print the value to the Serial Monitor

Serial.print("Potentiometer Value: ");

Serial.println(potValue); // Print the value

delay(500); // Wait for 500 milliseconds

}