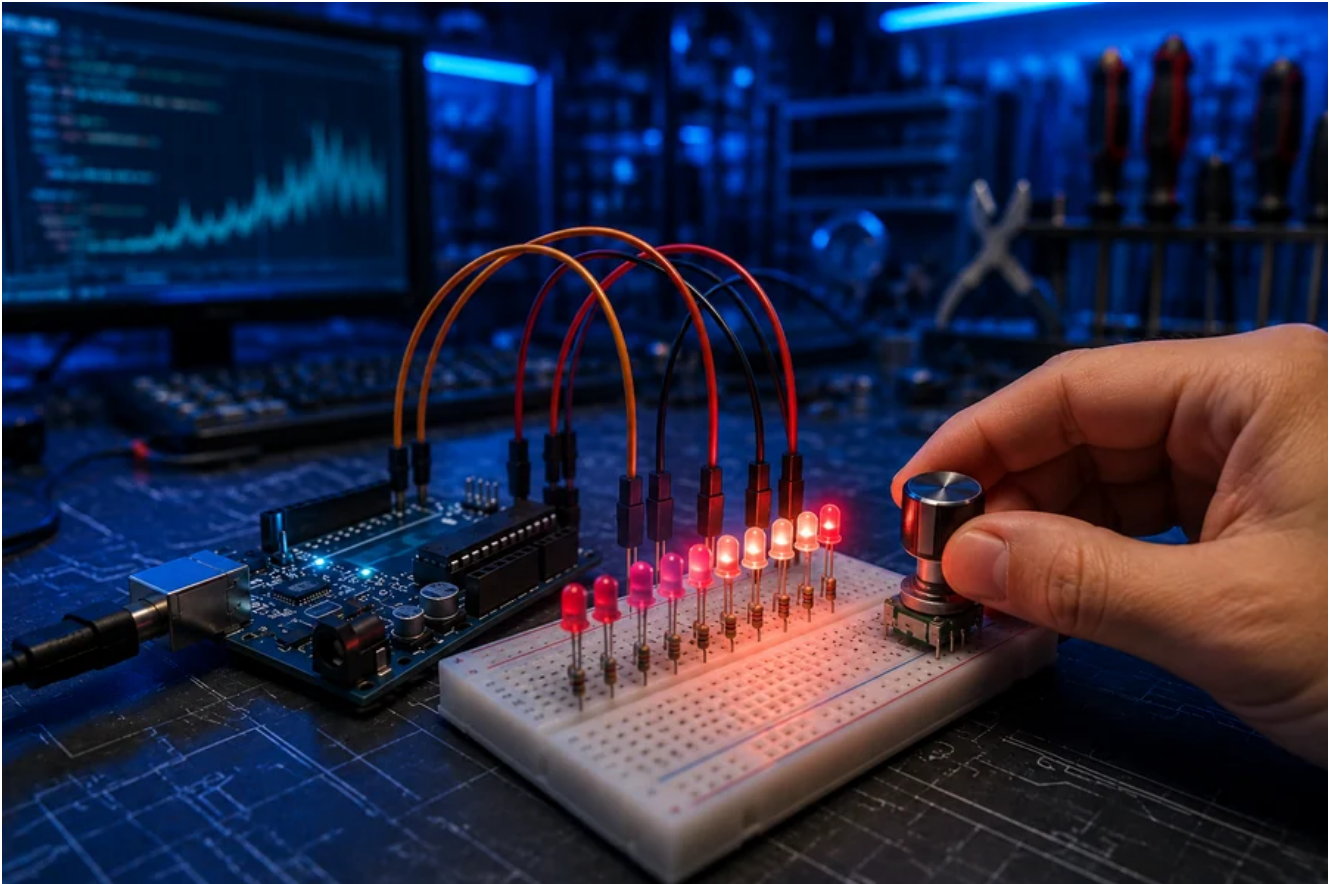


Arduino Potentiometer Analog Input Lab Manual

Printable pinout, wiring, code, build steps, expected results, and troubleshooting for every Arduino tutorial on the WolfieWeb Arduino page.

Arduino Potentiometer Analog Input Lab Manual



Goal: Read a physical knob and turn it into usable values from 0 to 1023.

Pin Codes and Wiring Map

Part / Lead	Arduino Pin / Connection	Purpose
Pot side pin 1	5V	Reference voltage
Pot side pin 2	GND	Ground reference
Pot center pin	A0	Analog signal
Optional LED PWM pin	D9	Use mapped value for brightness later

Step-by-Step Build Instructions

Step 1: Place the potentiometer so each leg lands on a separate breadboard row.

Step 2: Connect one outer leg to 5V and the other outer leg to GND.

Step 3: Connect the center/wiper leg to A0.

Step 4: Upload the analogRead sketch and open Serial Monitor at 9600 baud.

Step 5: Turn the knob slowly. Use `map()` later to convert 0-1023 into brightness, speed, or angle.

Expected Result

Serial Monitor values move smoothly from near 0 to near 1023 as the knob turns.

Troubleshooting

Problem	What to check
Value stuck at 0	Center pin may be wired to GND or A0 is disconnected.
Value stuck at 1023	Center pin may be wired to 5V.
Values jump wildly	Loose breadboard connection or no shared ground.

Arduino Code

```
void setup() {  
  Serial.begin(9600);  
}  
  
void loop() {  
  int knobValue = analogRead(A0);  
  Serial.println(knobValue);  
  delay(200);  
}
```

Scan the QR code on the package README or visit www.wolfieweb.com/works01.html for the live tutorial page.