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/*
Adapted From: Analog Input by David Cuartielles and Tom Igoe
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Project: Potentiometer to LED
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Version: 0.1
Description: This code shows how to use a potentiometer to control
             the blink rate of a LED.

*/
// ----- included libraries -----
// None - include new libraries here

// ----- hardware pin defines -----
int sensorPin = A0; // select the input pin for the potentiometer
int ledPin = 13;    // select the pin for the LED

// ----- variable initialization -----
int sensorValue = 0; // variable to store the value coming from the sensor
int delayTime = 0; //
int scaling = 1;

// ----- library initialization -----
// None - initialize new libraries here

void setup() {
  Serial.begin(9600);
  // ----- declare hardware connections -----
  pinMode(ledPin, OUTPUT);
}

void loop() {
  // Input
  sensorValue = analogRead(sensorPin);
  // Debugging
  Serial.print("Sensor value: "); Serial.println(sensorValue);

  // Processing
  // Scaling
  delayTime = scaling*sensorValue;
  Serial.print ("Delay in milliseconds: "); Serial.println (delayTime);

  // Output
  digitalWrite(ledPin, HIGH); // turn the ledPin on
  delay(delayTime);
  digitalWrite(ledPin, LOW); // turn the ledPin off:
  delay(delayTime);
}
```