

```
// Define the analog pin for the TMP36 sensor
const int tempSensorPin = A0;

void setup() {
  // Initialize serial communication for output to Serial Monitor
  Serial.begin(9600);
  Serial.println("Reading temperature values...");
}

void loop() {
  // Read the analog value from the TMP36 sensor
  int sensorValue = analogRead(tempSensorPin);

  // Convert the analog reading to voltage
  float voltage = sensorValue * (5.0 / 1023.0);

  // Convert voltage to temperature in Celsius
  float temperatureC = (voltage - 0.5) * 100.0;

  // Print the temperature to the Serial Monitor
  Serial.print("Temperature: ");
  Serial.print(temperatureC);
  Serial.println(" °C");

  // Wait 1 second before the next reading
  delay(1000);
}
```

