Project Description:

Arduino TMP36 real-time Serial Monitor LED

Components Required:

Arduino UNO

TMP36 Temperature Sensor

LED (optional)

Jumper Wires, Breadboard

220Ω Resistor

Circuit Overview:

TMP36:

VCC → 5V (Arduino)

GND → GND

OUT → A0 (Analog Pin)

LED (optional):

Positive → Pin 8

Negative → GND (via 220Ω resistor)

Features:

Serial Monitor

Tempture **>** 30°C are LED ON

Expandable with LCD, IoT, Data Logging

Code Logic:

analogRead → voltage = (reading * 5.0) / 1024

TMP36 output मध्ये 0.5V = 0°C

Final temperature formula: