CODE:

const int sensorPin = A0; // LM35 sensor connected to analog pin A0

const int ledPin = 13; // Onboard LED pin

unsigned long previousTime = 0; // Variable to store time

bool ledState = LOW; // Initial LED state

int interval = 0; // Blinking interval

void setup() {

pinMode(sensorPin, INPUT); // Set LM35 sensor pin as input

pinMode(ledPin, OUTPUT); // Set LED pin as output

Serial.begin(9600); // Initialize serial communication for debugging

}

void loop() {

int sensorValue = analogRead(sensorPin); // Read sensor value

float temperature = (sensorValue \* 5.0 \* 100.0) / 1024.0; // Convert sensor value to Celsius

if (temperature < 30.0) {

interval = 250;

} else {

interval = 500;

}

unsigned long currentTime = millis(); // Get current time

if (currentTime - previousTime >= interval) {

previousTime = currentTime; // Update previous time

ledState = !ledState; // Toggle LED state

digitalWrite(ledPin, ledState); // Set LED state

}

// Print temperature value to serial monitor for debugging

Serial.print("Temperature: ");

Serial.print(temperature);

Serial.println(" degrees Celsius");

}