const int LM35 = 0;

const int PinoPotenciometro = A1;

float temperatura = 0;

int ADClido = 0;

const int Buzzer = 12;

const int LED[] = {2, 3, 4, 5, 6, 7, 8, 9, 10, 11};

bool SLED[] = {LOW, LOW, LOW, LOW, LOW, LOW, LOW, LOW, LOW, LOW};

int ValorPot = 0;

int acendeu = 0;

void setup() {

Serial.begin(9600);

pinMode(Buzzer, OUTPUT);

for (int x = 0; x < 10; x++) {

pinMode(LED[x], OUTPUT);

}

}

//Piscar

unsigned long interval1 = 1000;

unsigned long previousMillis1 = 0;

int tempo1()

{

unsigned long currentMillis1 = millis();

if ((unsigned long)(currentMillis1 - previousMillis1) >= interval1) {

previousMillis1 = millis();

return 1;

}

else

{

return 0;

}

}

//Buzzer

unsigned long interval2 = 6000;

unsigned long previousMillis2 = 0;

int tempo2()

{

unsigned long currentMillis2 = millis();

if ((unsigned long)(currentMillis2 - previousMillis2) >= interval2) {

previousMillis2 = millis();

return 1;

}

else

{

return 0;

}

}

void piscar()

{

}

void temp()

{

if (tempo2() == 1)

{

if (temperatura > 34.00) {

digitalWrite(Buzzer, HIGH);

delay(1000);

digitalWrite(Buzzer, LOW);

} else {

digitalWrite(Buzzer, LOW);

}

}

}

void loop() {

ADClido = analogRead(LM35);

temperatura = ADClido \* 0.1075268817; //no Leonardo use 0.4887585532

ValorPot = analogRead(PinoPotenciometro);

interval1 = ValorPot;

Serial.print("Temp: ");

Serial.println(temperatura);

Serial.println(ValorPot);

if (tempo1() == 1 && acendeu == 0)

{

if (temperatura > 25.00) {

SLED[0] = HIGH;

digitalWrite(LED[0], HIGH);

}

else {

SLED[0] = LOW;

digitalWrite(LED[0], LOW);

}

if (temperatura > 26.00) {

SLED[1] = HIGH;

digitalWrite(LED[1], HIGH);

}

else {

SLED[1] = LOW;

digitalWrite(LED[1], LOW);

}

if (temperatura > 27.00) {

SLED[2] = HIGH;

digitalWrite(LED[2], HIGH);

}

else {

SLED[2] = LOW;

digitalWrite(LED[2], LOW);

}

if (temperatura > 28.00) {

SLED[3] = HIGH;

digitalWrite(LED[3], HIGH);

}

else {

SLED[3] = LOW;

digitalWrite(LED[3], LOW);

}

if (temperatura > 29.00) {

SLED[4] = HIGH;

digitalWrite(LED[4], HIGH);

}

else {

SLED[4] = HIGH;

digitalWrite(LED[4], LOW);

}

if (temperatura > 30.00) {

SLED[5] = HIGH;

digitalWrite(LED[5], HIGH);

}

else {

SLED[5] = LOW;

digitalWrite(LED[5], LOW);

}

if (temperatura > 31.00) {

SLED[6] = HIGH;

digitalWrite(LED[6], HIGH);

}

else {

SLED[6] = LOW;

digitalWrite(LED[6], LOW);

}

if (temperatura > 32.00) {

SLED[7] = HIGH;

digitalWrite(LED[7], HIGH);

}

else {

SLED[7] = LOW;

digitalWrite(LED[7], LOW);

}

if (temperatura > 33.00) {

SLED[8] = HIGH;

digitalWrite(LED[8], HIGH);

}

else {

SLED[8] = LOW;

digitalWrite(LED[8], LOW);

}

delay(ValorPot);

if (temperatura > 34.00) {

SLED[9] = HIGH;

digitalWrite(LED[9], HIGH);

}

else {

SLED[9] = LOW;

digitalWrite(LED[9], LOW);

}

}

else if (tempo2() == 1 && acendeu == 1)

{

for (int x = 0; x < 10; x++) {

digitalWrite(LED[x], LOW);

}

}

}