Reporte

Programas básicos

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Programa1:

int numero = 0;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

Serial.print("Ingrese un valor númerico entero: ");

}

void loop() {

// put your main code here, to run repeatedly:

if(Serial.available( )){

char n = Serial.read();

numero = String(n).toInt();

for(int i = 1; i <= numero; i++){

Serial.print(i);

delay(1000);

}

Serial.println();

}

}

Graphical user interface, text, application

Description automatically generated

Programa2:

int lm35 = 0;

float centi = 0.0;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

}

void loop() {

// put your main code here, to run repeatedly:

centi = (( lm35 \* (500.0 / 1023.0)/2));

float fahrenheit = (centi \* 9/5) + 32;

Serial.println("Temperatura en grados C: ");

Serial.println(centi);

Serial.println("Temperatura en grados K: ");

Serial.println(centi + 273.15 );

Serial.println("Temperatura en grados F: ");

Serial.println(fahrenheit);

delay(2000);

}

Graphical user interface, text, application

Description automatically generated

Programa3:

Archivo .ino

int lm35 = 0;

float temperatura = 0.0;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

}

void loop() {

// put your main code here, to run repeatedly:

lm35 = analogRead(A0);

temperatura = (( lm35 \* (500.0 / 1023.0)));

Serial.println(temperatura);

delay(500);

}

Código js:

const { SerialPort, ReadlineParser } = require('serialport');

const port = new SerialPort({

    path: '/dev/cu.usbmodem145101',

    baudRate: 9600,

});

let cont = 1;

let array = new Array();

const parser = new ReadlineParser({ delimiter: '\r\n' });

port.pipe(parser);

parser.on('data', function (temp) {

    array.push({ "valor": temp });

    if (cont % 10 == 0) {

        let print = JSON.stringify({ array });

        print = JSON.parse(print);

        console.log(print);

        array.forEach(temp => {

            console.log(temp.valor);

        });

        array = [];

    }

    cont++;

})

Programa4:

int lm35 = 0;

float temperaturas[500];

float total = 0.0;

float temperaturaC = 0.0;

float promedio = 0.0;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

}

void loop() {

// put your main code here, to run repeatedly:

for(int i = 0; i<500; i++) {

delay(100);

temperaturas[i] = (( analogRead(0) \* (500.0 / 1023.0)/2) );

Serial.println(temperaturas[i]);

}

for(int i = 0; i < 500; i++) {

total += temperaturas[i];

}

promedio = total/500;

Serial.print("El promedio de ");

Serial.print(total);

Serial.print(" es: ");

Serial.println(promedio);

delay(5000);

}

Graphical user interface, application

Description automatically generated

Programa5:

String valor;

void setup() {

// put your setup code here, to run once:

pinMode(LED\_BUILTIN, OUTPUT);

Serial.begin(9600);

delay(1000);

digitalWrite(LED\_BUILTIN, HIGH);

}

void loop() {

// put your main code here, to run repeatedly:

if(Serial.available()){

valor = Serial.readString();

if(valor=="prender\n"){

Serial.println("¡Led encendido!");

digitalWrite(LED\_BUILTIN, LOW);

}

if(valor=="apagar\n"){

Serial.println("¡Led apagado!");

digitalWrite(LED\_BUILTIN, HIGH);

}

}

}

 