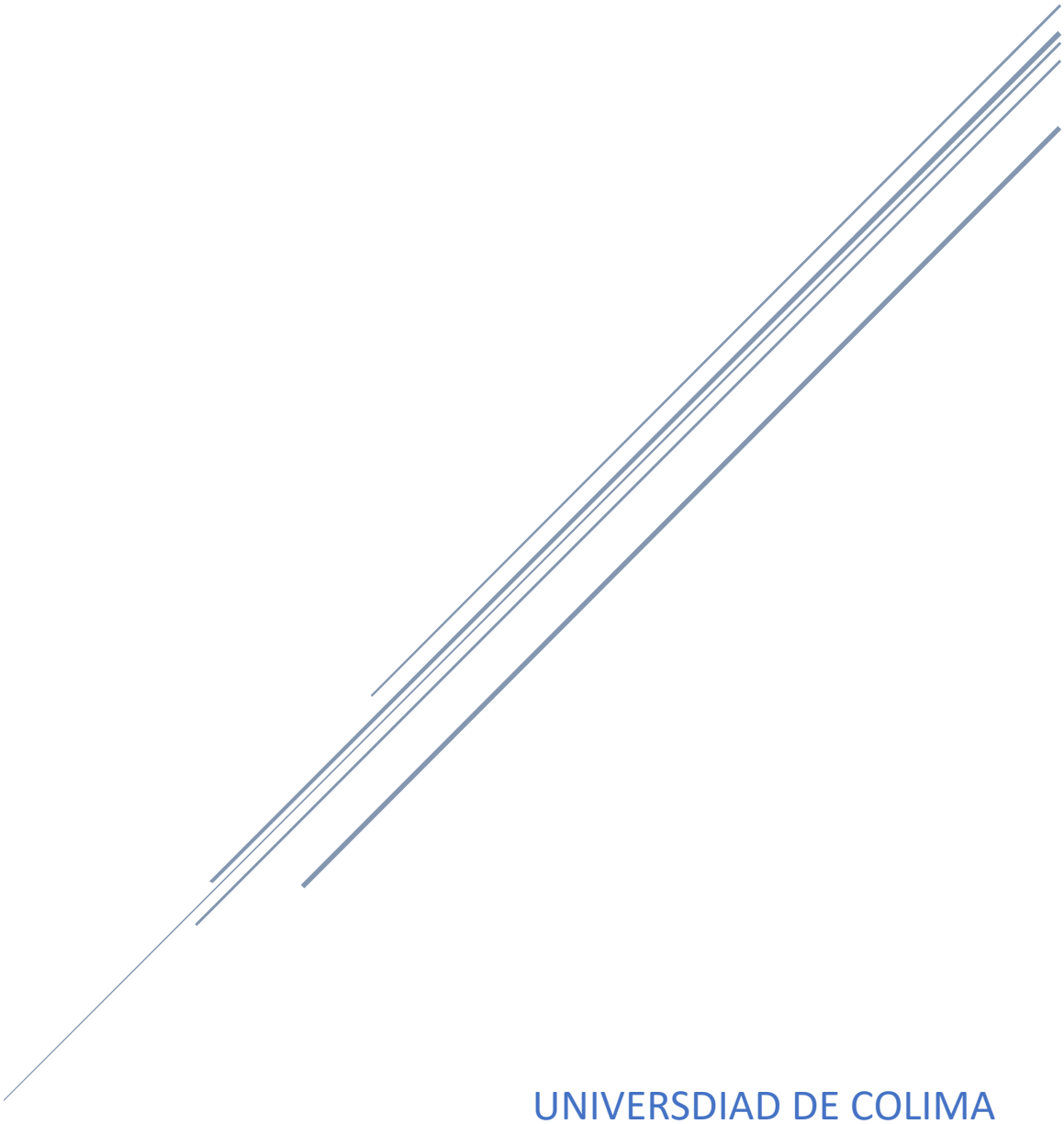
REPORTE

Programas básicos



Javier Anastasio Barreto Martinez 6°D

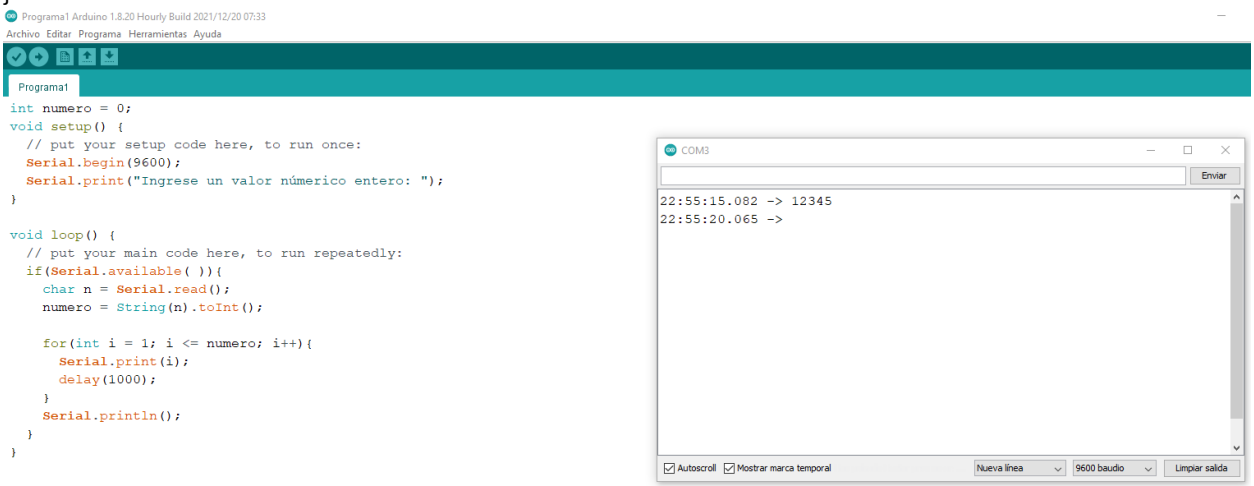
UNIVERSDIAD DE COLIMA
FACULTAD DE TELEMATICA

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();
  }
}
```



Programa2:

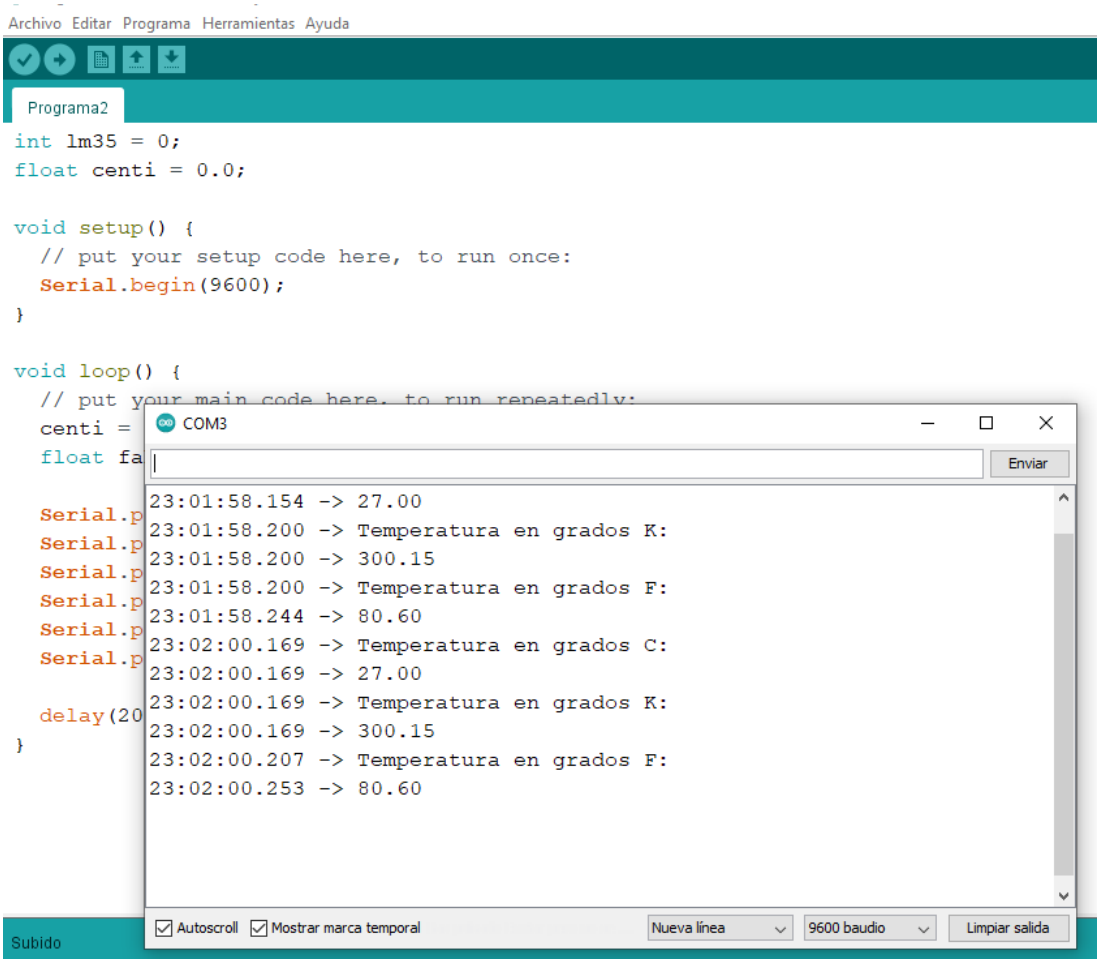
```
int lm35 = 0;
float centi = 0.0;

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);
}
```



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:

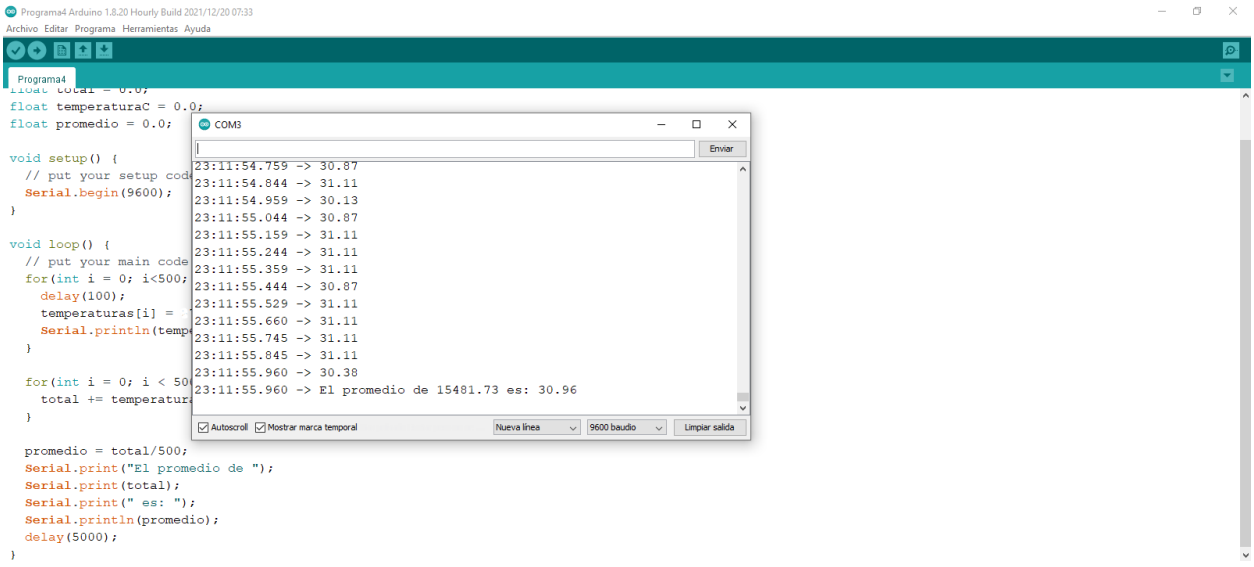
```
int lm35 = 0;
float temperaturas[500];
float total = 0.0;
float temperaturaC = 0.0;
float promedio = 0.0;

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);
}
```



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);
    }
  }
}
```