CÓDIGO – PROYECTO DISPLAY 7 SEGMENTOS – 01 (CONTADOR DE 0 A 9)

```
const int a=2;
const int b=3;
const int c=4;
const int d=5;
const int e=6;
const int f=7;
const int g=8;
const int h=9;

void setup() {
 pinMode(a, OUTPUT);
 pinMode(b, OUTPUT);
 pinMode(c, OUTPUT);
 pinMode(d, OUTPUT);
 pinMode(e, OUTPUT);
 pinMode(f, OUTPUT);
 pinMode(g, OUTPUT);
 pinMode(h, OUTPUT);

  }

void loop() {

 // CERO
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, LOW);
 digitalWrite(f, LOW);
 digitalWrite(g, HIGH);
 digitalWrite(h, LOW);
 delay(500);

 //UNO
 digitalWrite(a, HIGH);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, HIGH);
 digitalWrite(e, HIGH);
 digitalWrite(f, HIGH);
 digitalWrite(g, HIGH);
 digitalWrite(h, LOW);
 delay(500);

 //DOS
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, HIGH);
 digitalWrite(d, LOW);
 digitalWrite(e, LOW);
 digitalWrite(f, HIGH);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 delay(500);

 //TRES
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, HIGH);
 digitalWrite(f, HIGH);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 delay(500);

 //CUATRO
 digitalWrite(a, HIGH);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, HIGH);
 digitalWrite(e, HIGH);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 delay(500);

 //CINCO
 digitalWrite(a, LOW);
 digitalWrite(b, HIGH);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, HIGH);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 delay(500);

 //SEIS
 digitalWrite(a, LOW);
 digitalWrite(b, HIGH);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, LOW);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 delay(500);

 //SIETE
 digitalWrite(a, LOW);
```

```
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, HIGH);
  digitalWrite(e, HIGH);
  digitalWrite(f, HIGH);
  digitalWrite(g, HIGH);
  digitalWrite(h, LOW);
  delay(500);

  //OCHO
  digitalWrite(a, LOW);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, LOW);
  digitalWrite(e, LOW);
  digitalWrite(f, LOW);
  digitalWrite(g, LOW);
  digitalWrite(h, LOW);
  delay(500);

  //NUEVE
  digitalWrite(a, LOW);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, LOW);
  digitalWrite(e, HIGH);
  digitalWrite(f, LOW);
  digitalWrite(g, LOW);
  digitalWrite(h, LOW);
  delay(500);

}
```

CÓDIGO – PROYECTO DISPLAY 7 SEGMENTOS – 02 (CONTADOR DE 0 A 9 Y BOTONES DE CONTROL)

```
const int a=2;
const int b=3;
const int c=4;
const int d=5;
const int e=6;
const int f=7;
const int g=8;
const int h=9;

const int boton_ACEND=11;
const int boton_DECEN=12;

const int timeAntirebote=10;
int cuenta=0;
int estadoBOTON_ACEND;
int estadoBOTON_ANTES_ACEND;
int estadoBOTON_DECEN;
int estadoBOTON_ANTES_DECEN;

boolean antirrebote(int pin) {
 int contador=0;
 boolean estado;
 boolean estado_ANTES;

 do {
  estado = digitalRead(pin);
   if(estado != estado_ANTES) {
    contador=0;
    estado_ANTES = estado;
   }
   else {
    contador = contador + 1;
   }
   delay(1);
 }
 while (contador < timeAntirebote);
 return estado;
}

void actualizaNUMER() {
 switch(cuenta) {

  case 0:
  digitalWrite(a, LOW);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, LOW);
  digitalWrite(e, LOW);
  digitalWrite(f, LOW);
  digitalWrite(g, HIGH);
  digitalWrite(h, LOW);
 break;

 case 1:
  digitalWrite(a, HIGH);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, HIGH);
  digitalWrite(e, HIGH);
  digitalWrite(f, HIGH);
  digitalWrite(g, HIGH);
  digitalWrite(h, LOW);
 break;

 case 2:
  digitalWrite(a, LOW);
  digitalWrite(b, LOW);
  digitalWrite(c, HIGH);
  digitalWrite(d, LOW);
  digitalWrite(e, LOW);
  digitalWrite(f, HIGH);
  digitalWrite(g, LOW);
  digitalWrite(h, LOW);
 break;

case 3:
  digitalWrite(a, LOW);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, LOW);
  digitalWrite(e, HIGH);
  digitalWrite(f, HIGH);
  digitalWrite(g, LOW);
  digitalWrite(h, LOW);
 break;

case 4:
  digitalWrite(a, HIGH);
  digitalWrite(b, LOW);
  digitalWrite(c, LOW);
  digitalWrite(d, HIGH);
  digitalWrite(e, HIGH);
  digitalWrite(f, LOW);
  digitalWrite(g, LOW);
  digitalWrite(h, LOW);
 break;

case 5:
  digitalWrite(a, LOW);
  digitalWrite(b, HIGH);
  digitalWrite(c, LOW);
```

```
 digitalWrite(d, LOW);
 digitalWrite(e, HIGH);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
break;

case 6:
 digitalWrite(a, LOW);
 digitalWrite(b, HIGH);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, LOW);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
break;

case 7:
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, HIGH);
 digitalWrite(e, HIGH);
 digitalWrite(f, HIGH);
 digitalWrite(g, HIGH);
 digitalWrite(h, LOW);
break;

case 8:
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, LOW);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 break;

 case 9:
 digitalWrite(a, LOW);
 digitalWrite(b, LOW);
 digitalWrite(c, LOW);
 digitalWrite(d, LOW);
 digitalWrite(e, HIGH);
 digitalWrite(f, LOW);
 digitalWrite(g, LOW);
 digitalWrite(h, LOW);
 break;

 }
}


void setup() {
 pinMode(a, OUTPUT);
 pinMode(b, OUTPUT);
 pinMode(c, OUTPUT);
 pinMode(d, OUTPUT);
 pinMode(e, OUTPUT);
 pinMode(f, OUTPUT);
 pinMode(g, OUTPUT);
 pinMode(h, OUTPUT);
 pinMode(boton_ACEND,
INPUT);
 pinMode(boton_DECEN,
INPUT);
}

void loop() {
 estadoBOTON_ACEND =
digitalRead (boton_ACEND);
 if(estadoBOTON_ACEND !=
estadoBOTON_ANTES_ACEND) {
  if(antirrebote(boton_ACEND))
{
    cuenta++;
    if(cuenta > 9) {
     cuenta = 9;
    }
  }
 }
 estadoBOTON_ANTES_ACEND
= estadoBOTON_ACEND;

 estadoBOTON_DECEN =
digitalRead (boton_DECEN);
 if(estadoBOTON_DECEN !=
estadoBOTON_ANTES_DECEN) {
  if(antirrebote(boton_DECEN))
{
    cuenta--;
    if(cuenta < 0) {
     cuenta = 0;
    }
  }
 }
 estadoBOTON_ANTES_DECEN
= estadoBOTON_DECEN;

 actualizaNUMER();

}
```