**EJERCICIO 1 (compila)**

/\*

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.

\*/

// Pin 10 has an LED connected on most Arduino boards.

// give it a name:

int led1 = 10;

// Pin 11 has an LED connected on most Arduino boards.

// give it a name:

int led2 = 11;

// Pin 12 has an LED connected on most Arduino boards.

// give it a name:

int led3 = 12;

// the setup routine runs once when you press reset:

void setup() {

// initialize the digital pin as an output.

pinMode(led1, INPUT);

pinMode(led2, INPUT);

pinMode(led3, INPUT);

}

// the loop routine runs over and over again forever:

void loop()

{

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}

**EJERCICIO 2 - CONDICIÓN 1 (compila)**

/\*

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.

\*/

// Pin 5 has an LED connected on most Arduino boards.

// give it a name:

int LLAVE = 5;

int estado;

// Pin 10 has an LED connected on most Arduino boards.

// give it a name:

int led1 = 10;

// Pin 11 has an LED connected on most Arduino boards.

// give it a name:

int led2 = 11;

// Pin 12 has an LED connected on most Arduino boards.

// give it a name:

int led3 = 12;

// the setup routine runs once when you press reset:

void setup() {

// initialize the digital pin as an output.

pinMode(led1, OUTPUT);

pinMode(led2, OUTPUT);

pinMode(led3, OUTPUT);

pinMode(LLAVE, INPUT);

}

// the loop routine runs over and over again forever:

void loop() {

estado=digitalRead(LLAVE);

if(estado==HIGH){

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}else{

digitalWrite(led1,LOW);

digitalWrite(led2,LOW);

digitalWrite(led3,LOW);

}

}

**EJERCICIO 2 - CONDICIÓN 2 (suponiendo que la realidad es bonita)**

**-Problemas con else (solo utilizamos if)**

**- Preguntar: se puerde poner un if dentro de otro if**

**- if (if-else)-else**

**-if-else if-else no compila**

/\*

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.

\*/

// Pin 5 has an LED connected on most Arduino boards.

// give it a name:

int LLAVE = 5;

// Pin 6 has an LED connected on most Arduino boards.

// give it a name:

int PUERTA = 6;

int estado;

int direccion;

// Pin 10 has an LED connected on most Arduino boards.

// give it a name:

int led1 = 10;

// Pin 11 has an LED connected on most Arduino boards.

// give it a name:

int led2 = 11;

// Pin 12 has an LED connected on most Arduino boards.

// give it a name:

int led3 = 12;

// the setup routine runs once when you press reset:

void setup() {

// initialize the digital pin as an output.

pinMode(led1, OUTPUT);

pinMode(led2, OUTPUT);

pinMode(led3, OUTPUT);

pinMode(LLAVE, INPUT);

pinMode(PUERTA, INPUT);

}

// the loop routine runs over and over again forever:

void loop() {

estado=digitalRead(LLAVE);

direccion=digitalRead(PUERTA);

if(estado==HIGH);

if(direccion==HIGH);{

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}

if(estado==HIGH);

if(direccion==LOW);{

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}if(estado==LOW);{

digitalWrite(led1,LOW);

digitalWrite(led2,LOW);

digitalWrite(led3,LOW);

}}

**EJERCICIO 2 - CONDICIÓN 2 (asumiendo la realidad)**

/\*

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.

\*/

// Pin 6 has an LED connected on most Arduino boards.

// give it a name:

int PUERTA = 6;

int direccion;

// Pin 10 has an LED connected on most Arduino boards.

// give it a name:

int led1 = 10;

// Pin 11 has an LED connected on most Arduino boards.

// give it a name:

int led2 = 11;

// Pin 12 has an LED connected on most Arduino boards.

// give it a name:

int led3 = 12;

// the setup routine runs once when you press reset:

void setup() {

// initialize the digital pin as an output.

pinMode(led1, OUTPUT);

pinMode(led2, OUTPUT);

pinMode(led3, OUTPUT);

pinMode(PUERTA, INPUT);

}

// the loop routine runs over and over again forever:

void loop() {

direccion=digitalRead(PUERTA);

if(direccion==HIGH);

{

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}

else{digitalRead(PUERTA;LOW);

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}

}

**EJERCICIO 2 - CONDICIÓN 2 (asumiendo la realidad) (que si compila)**

/\*

Blink

Turns on an LED on for one second, then off for one second, repeatedly.

This example code is in the public domain.

\*/

// Pin 5 has an LED connected on most Arduino boards.

// give it a name:

int PUERTA = 6;

int direccion;

// Pin 10 has an LED connected on most Arduino boards.

// give it a name:

int led1 = 10;

// Pin 11 has an LED connected on most Arduino boards.

// give it a name:

int led2 = 11;

// Pin 12 has an LED connected on most Arduino boards.

// give it a name:

int led3 = 12;

// the setup routine runs once when you press reset:

void setup() {

// initialize the digital pin as an output.

pinMode(led1, OUTPUT);

pinMode(led2, OUTPUT);

pinMode(led3, OUTPUT);

pinMode(PUERTA, INPUT);

}

// the loop routine runs over and over again forever:

void loop() {

direccion=digitalRead(PUERTA);

if(direccion==HIGH){

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

}else{

digitalWrite(led3, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led3, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led2, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led2, LOW); // turn the LED off by making the voltage LOW

delay(1000); // wait for a second

digitalWrite(led1, HIGH); // turn the LED on (HIGH is the voltage level)

delay(1000); // wait for a second

digitalWrite(led1, LOW); // turn the LED off by making the voltage LOW

delay(1000);

}

}