

Seminario y práctica de Arduino



**UNIVERSIDAD
DE GRANADA**

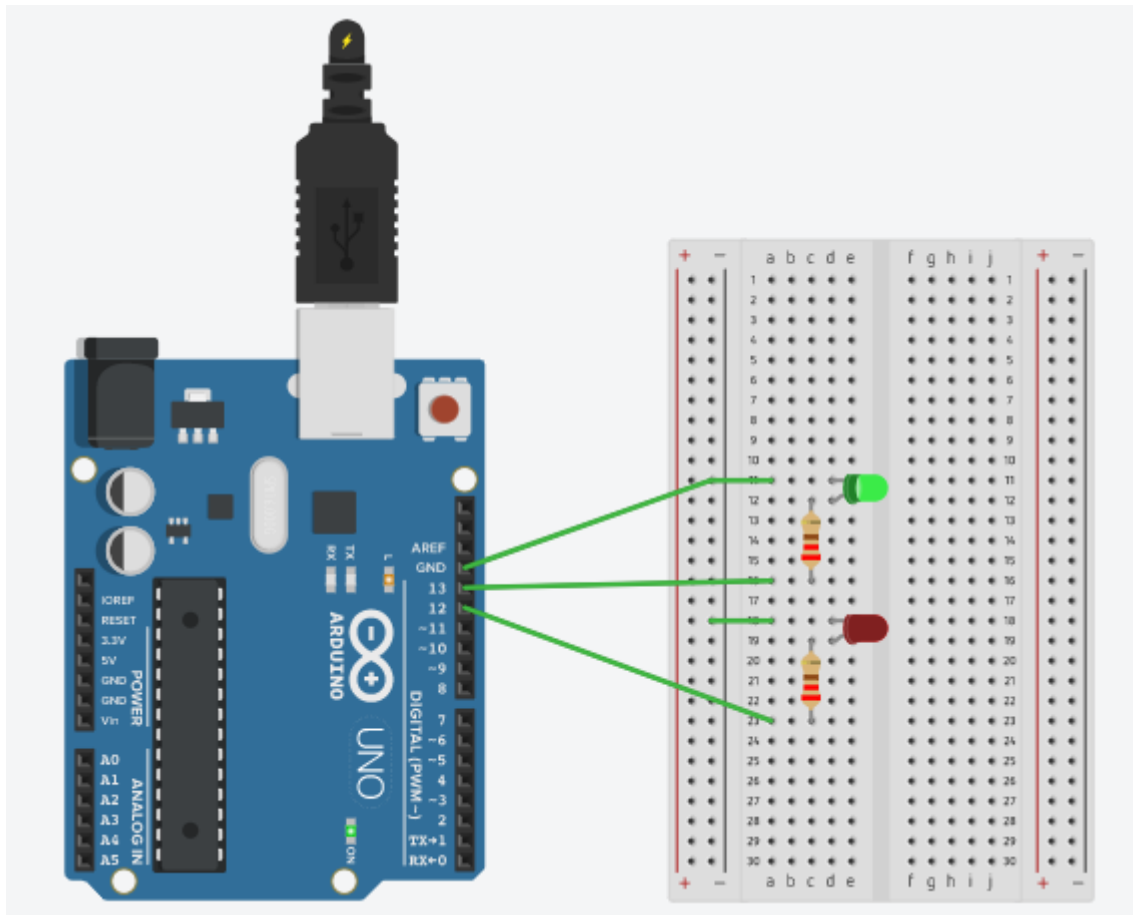
**** Resistencias: 220 ohmios ****

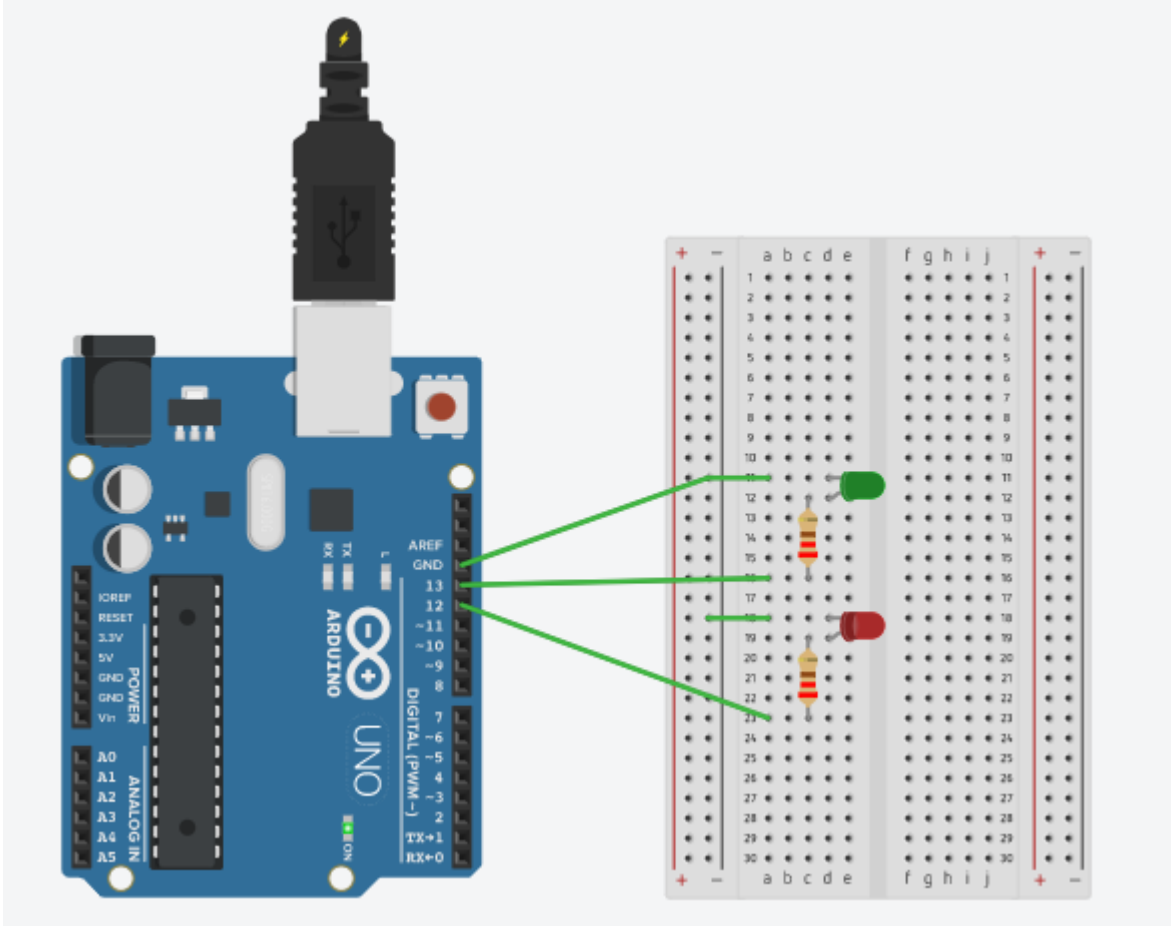
SEMINARIO

Parpadeo de led en el que se encienden y apagan alternativamente dos LEDS conectados a las salidas digitales 12 y 13 a un intervalo de 1.5 segundos:

```
void setup()
{
  pinMode(13, OUTPUT);
}

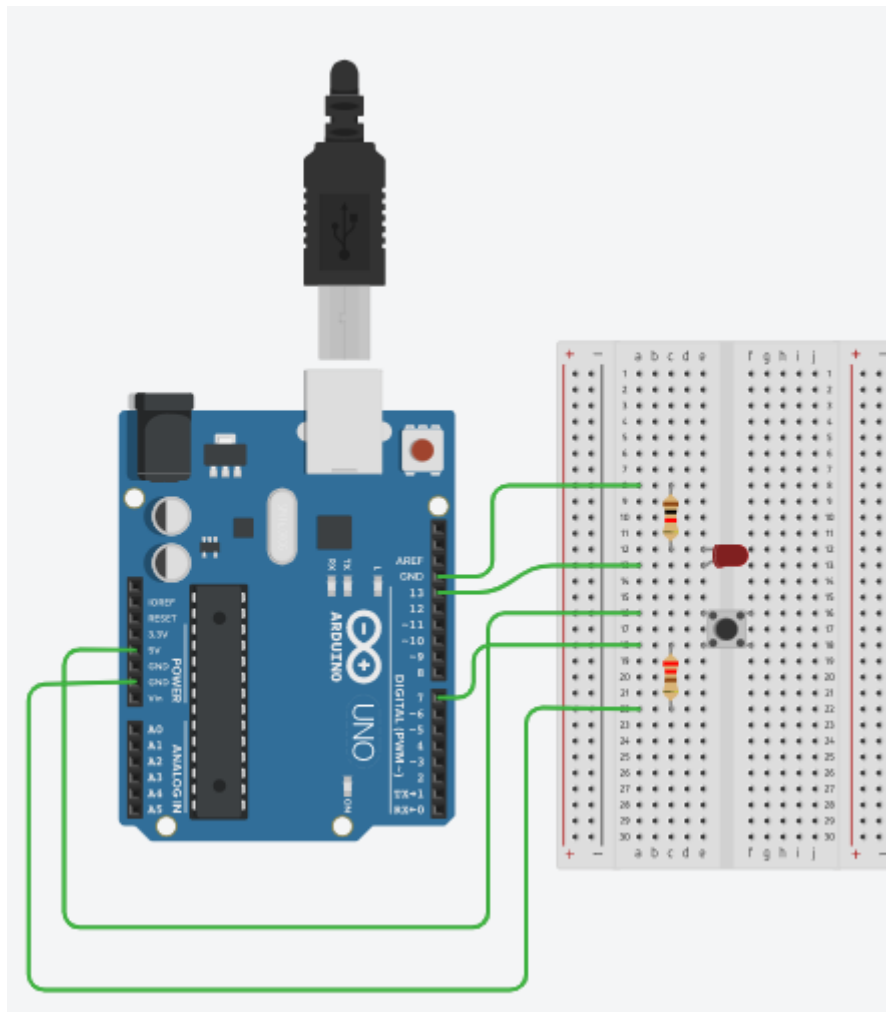
void loop()
{
  digitalWrite(13, HIGH);
  delay(1500); // Wait for 1500 millisecond(s)
  digitalWrite(13, LOW);
  digitalWrite(12, HIGH);
  delay(1500); // Wait for 1500 millisecond(s)
  digitalWrite(12, LOW);
}
```





El led se enciende cuando se pulsa el interruptor:

```
const int LED = 13;  
const int BOTON = 7;  
  
void setup()  
{  
  pinMode(LED, OUTPUT);  
  pinMode(BOTON, INPUT);  
}  
  
void loop()  
{  
  digitalWrite(LED, digitalRead(BOTON));  
}
```

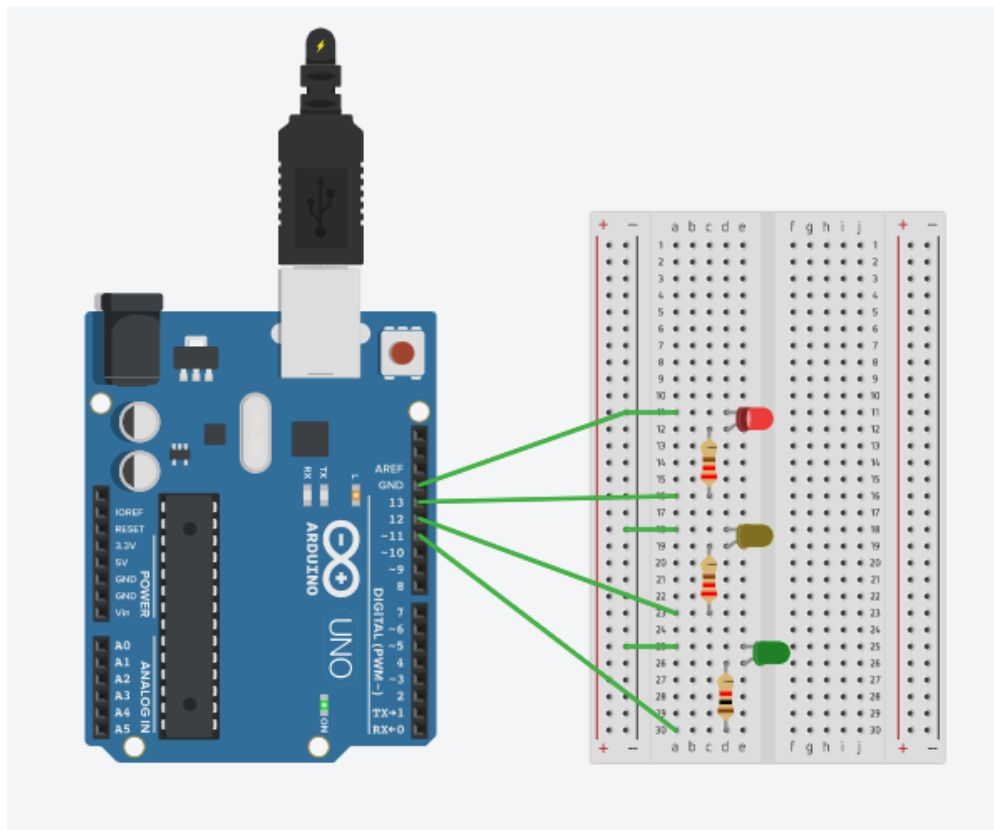


PRÁCTICA

Parpadeo de led en el que se encienden y apagan alternativamente tres LEDS conectados a las salidas digitales 11, 12 y 13 a un intervalo de 1.5 segundos:

```
void setup()
{
  pinMode(13, OUTPUT);
}

void loop()
{
  digitalWrite(13, HIGH);
  delay(1500); // Wait for 1500 millisecond(s)
  digitalWrite(13, LOW);
  digitalWrite(12, HIGH);
  delay(1500); // Wait for 1500 millisecond(s)
  digitalWrite(12, LOW);
  digitalWrite(11, HIGH);
  delay(1500); // Wait for 1500 millisecond(s)
  digitalWrite(11, LOW);
}
```



“El coche fantástico”

```
void setup()
{
  pinMode(13, OUTPUT);
}

void loop()
{
  digitalWrite(13, HIGH);
  delay(500);

  digitalWrite(12, HIGH);
  delay(200);
  digitalWrite(13, LOW);
  delay(500);

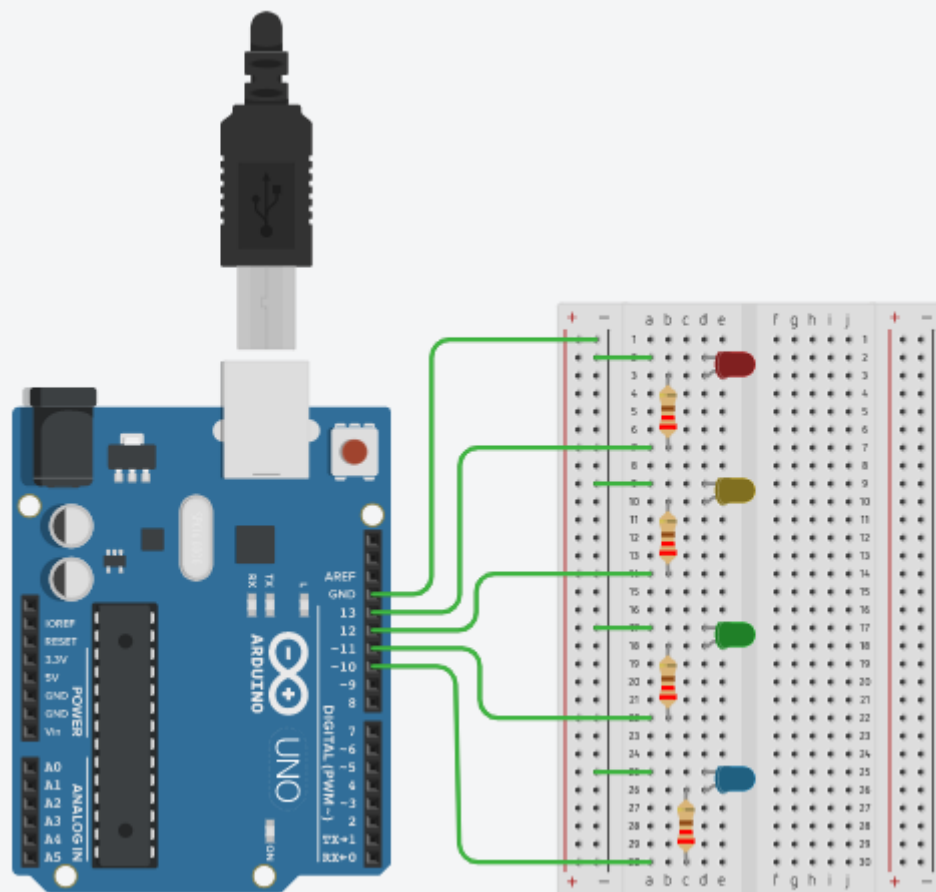
  digitalWrite(11, HIGH);
  delay(200);
  digitalWrite(12, LOW);
  delay(500);

  digitalWrite(10, HIGH);
  delay(200);
  digitalWrite(11, LOW);
  delay(500);

  digitalWrite(11, HIGH);
  delay(200);
  digitalWrite(10, LOW);
  delay(500);

  digitalWrite(12, HIGH);
  delay(200);
  digitalWrite(11, LOW);
  delay(500);

  digitalWrite(13, HIGH);
  delay(200);
  digitalWrite(12, LOW);
}
```



Alarma por deteccion de presencia:

```
int estadoSensor = 0;

void setup()
{
  pinMode(2, INPUT);
  pinMode(13, OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  estadoSensor = digitalRead(2);
  if (estadoSensor == HIGH){
    digitalWrite(13, HIGH);
  }else{
    digitalWrite(13, LOW);
  }

  delay(10);
}
```