

# PRÁCTICAS MBOT RANGER

## 1. Encendido intermitente de un Led.

```

Auriga Program
forever
  set led on board 1 red 150 green 0 blue 0
  wait 1 secs
  set led on board 1 red 0 green 0 blue 0
  wait 1 secs
  
```

¿Sería correcto el siguiente programa?

```

Auriga Program
set led on board 1 red 150 green 0 blue 0
wait 1 secs
set led on board 1 red 0 green 0 blue 0
wait 1 secs
  
```

¿Sería correcto el siguiente programa?

```

Auriga Program
set led on board all red 0 green 0 blue 0
forever
  set led on board 1 red 0 green 0 blue 0
  set led on board 1 red 255 green 0 blue 0
  
```

Realiza un programa que modifique el color del Led cada vez que se enciende.

## 2. Encender y apagar todos los leds.

```

Auriga Program
forever
  set led on board all red 150 green 0 blue 0
  wait 1 secs
  set led on board all red 0 green 0 blue 0
  wait 1 secs
  
```

## 3. Sensor de distancia. Encendido de un Led en función de la distancia.

```

Auriga Program
set led on board all red 0 green 0 blue 0
forever
  set distancia to ultrasonic sensor Port10 distance
  if distancia < 10 then
    set led on board 1 red 255 green 0 blue 0
  if distancia > 10 then
    set led on board 1 red 0 green 255 blue 0
  
```

```

Auriga Program
set led on board all red 0 green 0 blue 0
forever
  set distancia to ultrasonic sensor Port10 distance
  if distancia < 20 and distancia > 10 then
    set led on board 1 red 0 green 255 blue 0
  if distancia < 10 then
    set led on board 1 red 255 green 0 blue 0
  if distancia > 20 then
    set led on board 1 red 0 green 0 blue 0
  
```

## 4. Sensor de distancia. Avanzar en función de la distancia.

```

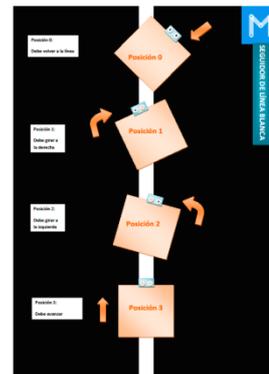
Auriga Program
set led on board all red 0 green 0 blue 0
forever
  set distancia to ultrasonic sensor Port10 distance
  if distancia < 10 then
    run forward at speed 100
  if distancia > 10 then
    run forward at speed 0
  
```

## 5. Encendido de Leds con color aleatorio.

```

Auriga Program
set nled to 1
set led on board all red 0 green 0 blue 0
repeat 12
  set rojo to pick random 0 to 255
  set verde to pick random 0 to 255
  set azul to pick random 0 to 255
  set led on board nled red rojo green verde blue azul
  wait 1 secs
  change nled by 1
  
```

## 6. Seguidor de línea



Programa para seguir una línea negra sobre fondo blanco:

```

Auriga Program
forever
  set sensor to line follower Ports
  if sensor = 0 then
    run forward at speed 100
  if sensor = 1 then
    turn left at speed 100
  if sensor = 2 then
    turn right at speed 100
  if sensor = 3 then
    run backward at speed 100
  
```

Modifica el programa de forma que se encienda un led rojo cuando se salga de la línea, verde cuando esté avanzando y azul cuando esté girando.