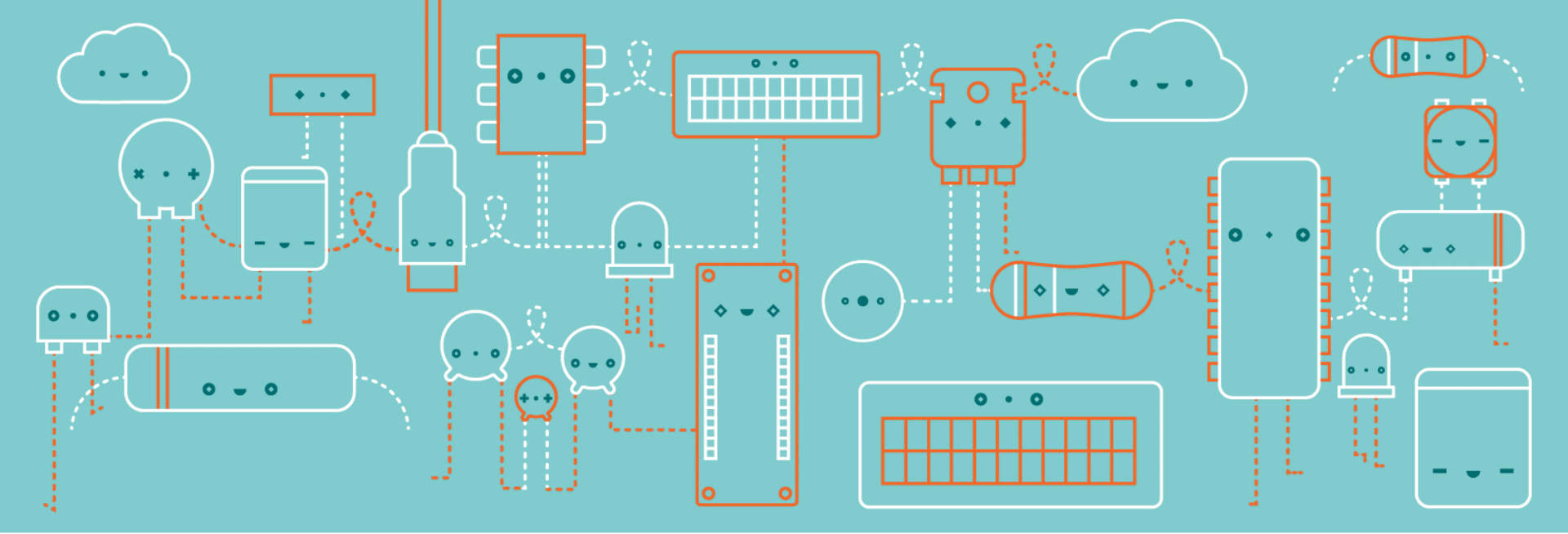

E/S ANALÓGICAS – PUERTO SERIE

Luis Miguel Capacho
Jorge Iván Marín

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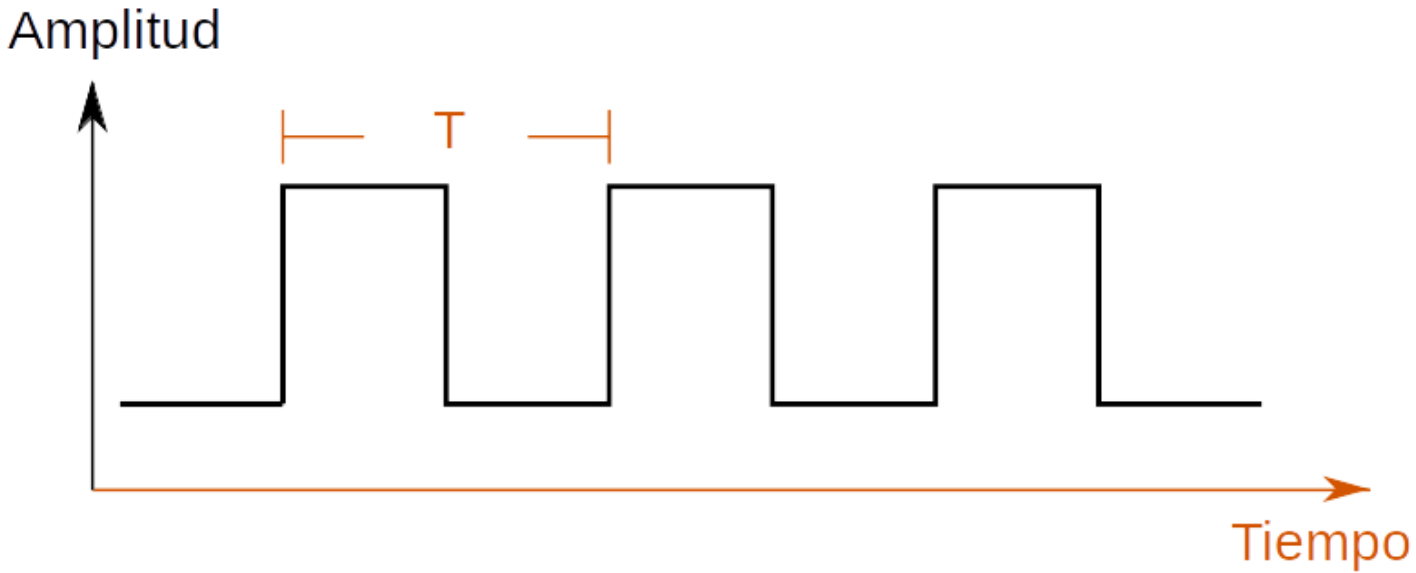
PWM (Pulse **W**idth **M**odulation**)**



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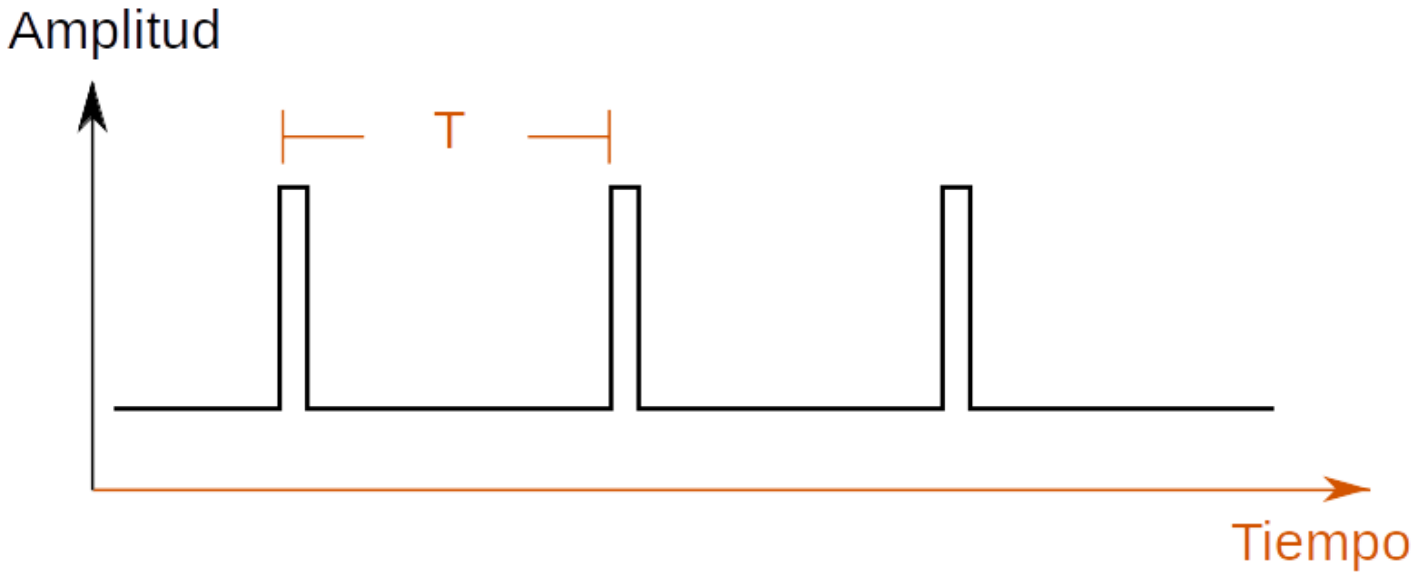
PWM – CICLO ÚTIL



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PWM - LED

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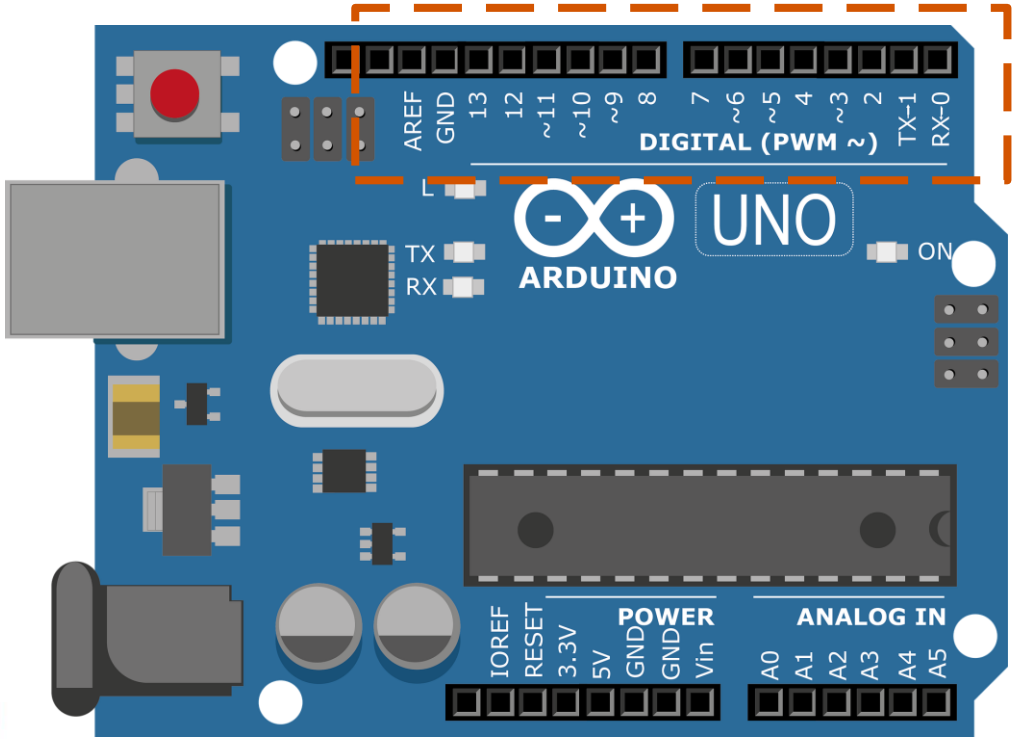
PWM - ARDUINO



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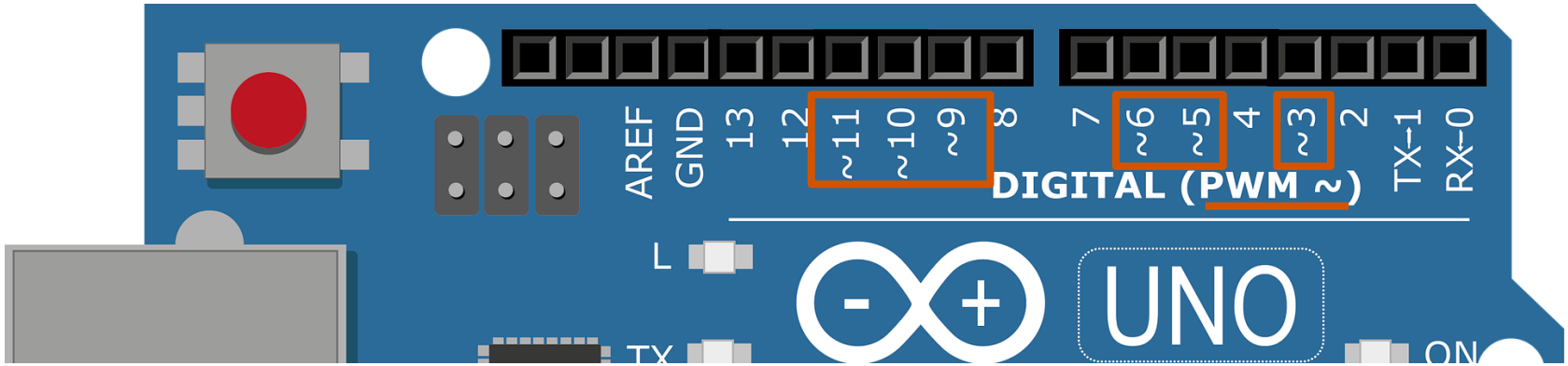
PWM - ARDUINO



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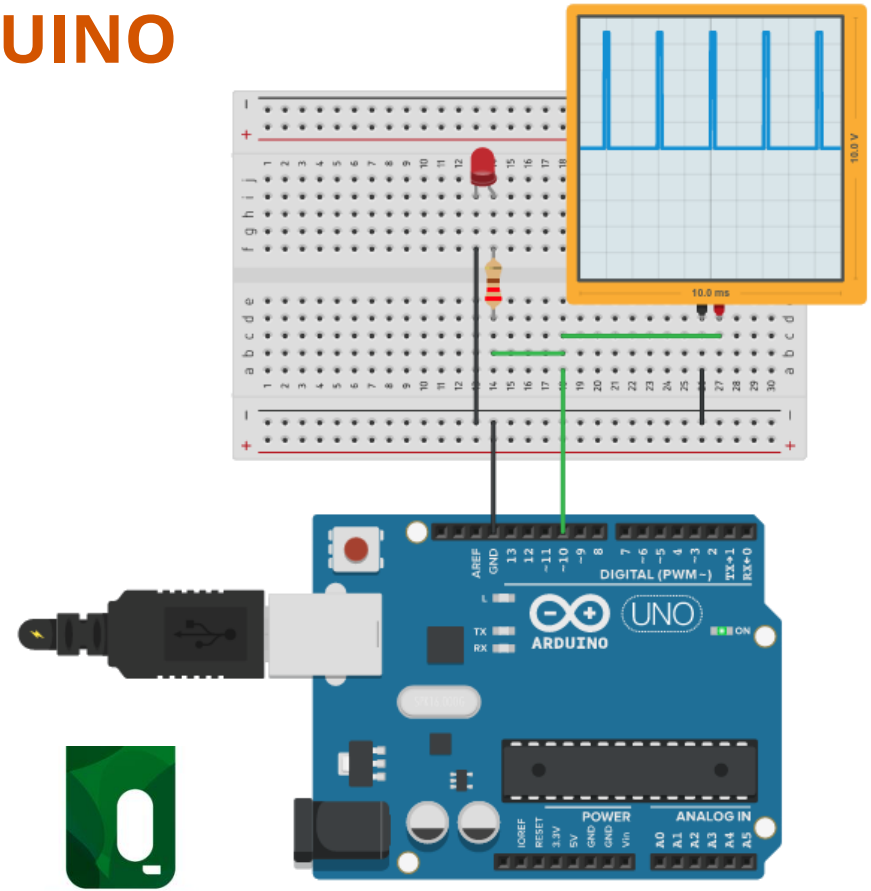
PWM - ARDUINO

```
analogWrite( pin, valor )
```

Pin: Pin del Arduino con salida PWM
Valor: Ciclo útil. Valores permitidos 0 - 255

PWM - ARDUINO



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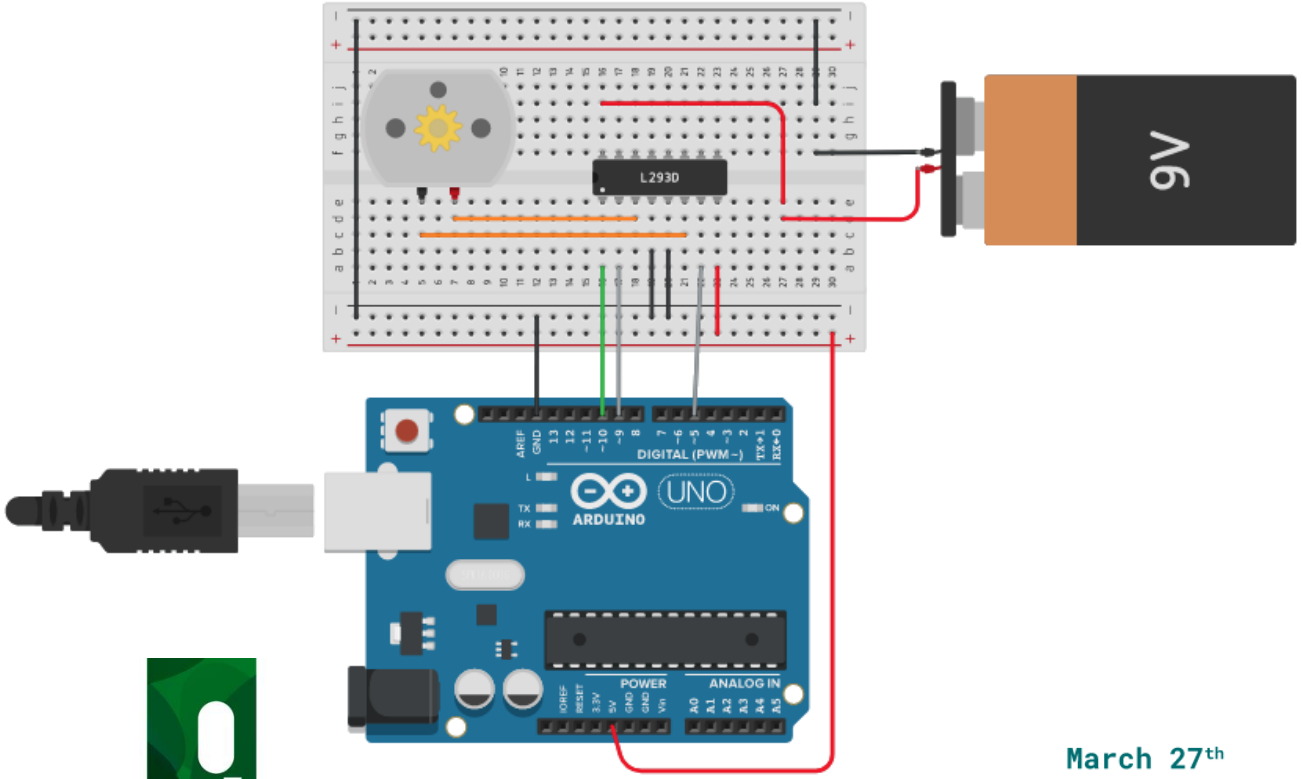
PWM – VELOCIDAD DE UN MOTOR



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SEÑALES ANALÓGICAS

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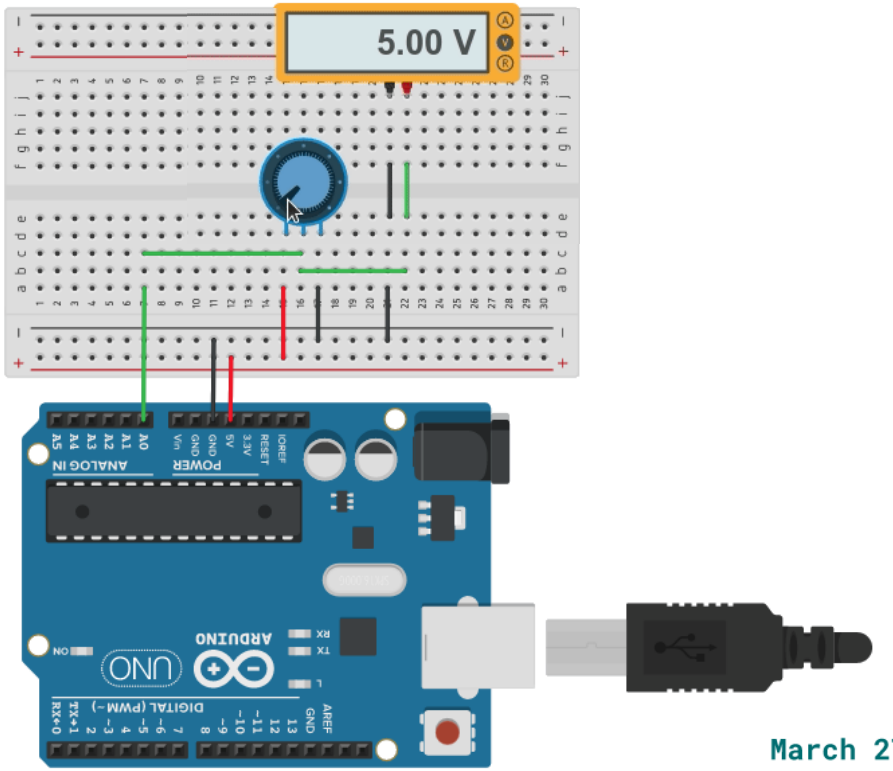
SEÑALES ANALÓGICAS – POTENCIÓMETRO



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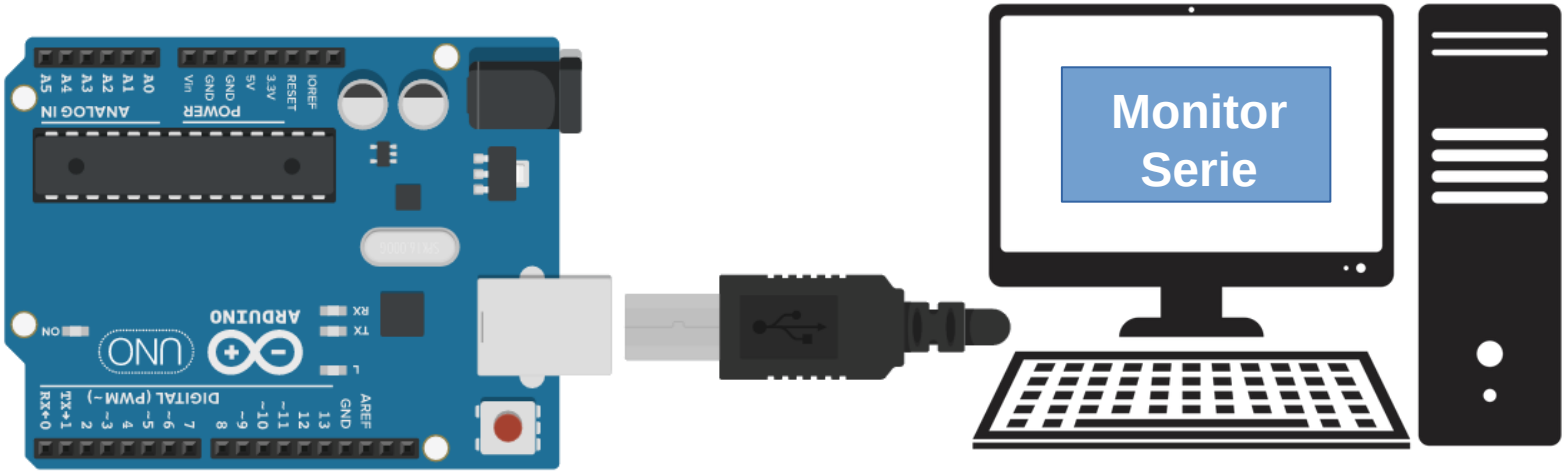
SEÑALES ANALÓGICAS - ARDUINO

```
analogRead( pin )
```

Pin: Entrada analógica del Arduino (Ejemplo: A0 a A5 Arduino Uno)

Retorna un número entero entre 0 - 1023

COMUNICACIÓN SERIAL



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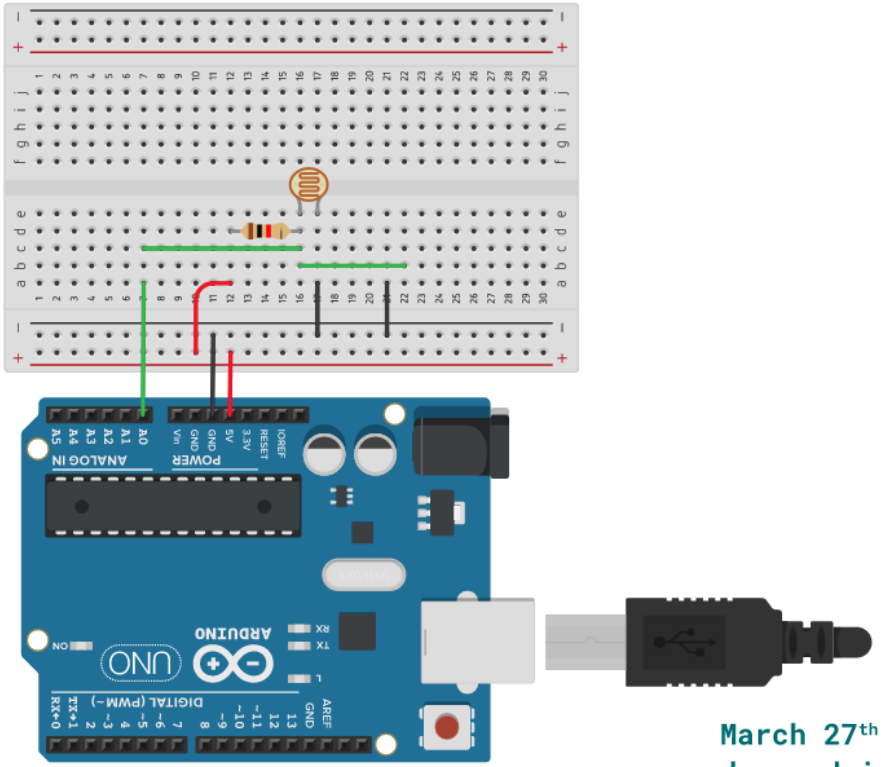
COMUNICACIÓN SERIAL

`Serial.begin(9600)` → Inicializa el puerto serie

`Serial.print(valor)` → Imprime un valor

`Serial.println(valor)` → Imprime un valor con salto de línea

SEÑALES ANALÓGICAS – SENSOR



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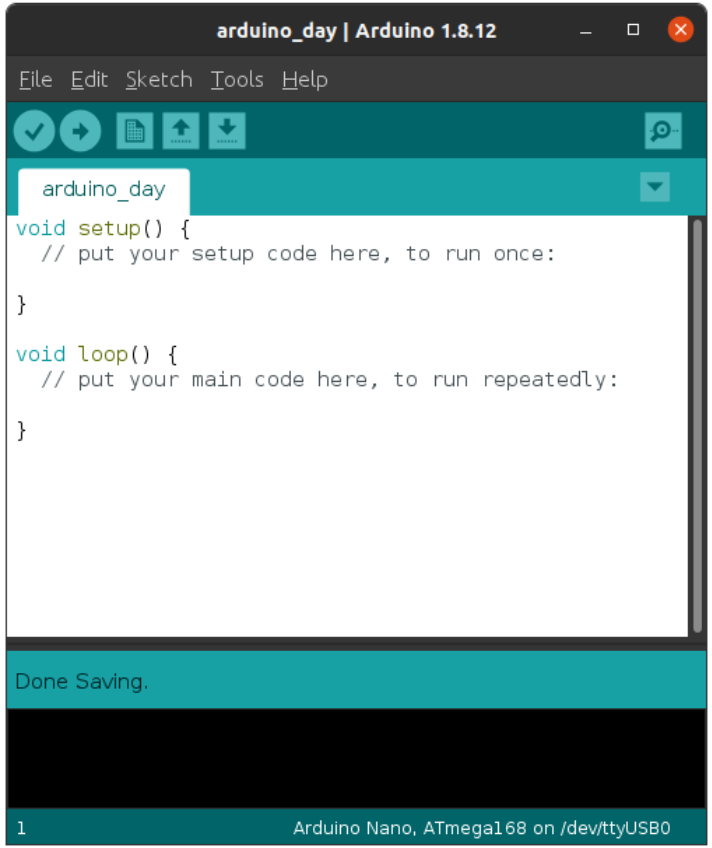
ARDUINO IDE

https://www.arduino.cc

Multiplataforma
Libre
Fácil de usar



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EJEMPLO EN MONTAJE REAL

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Thank you!

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