

# Curso de Arduino e automação

Professor Vanderlei

Licenciado em Matemática  
Universidade Metropolitana  
de Santos

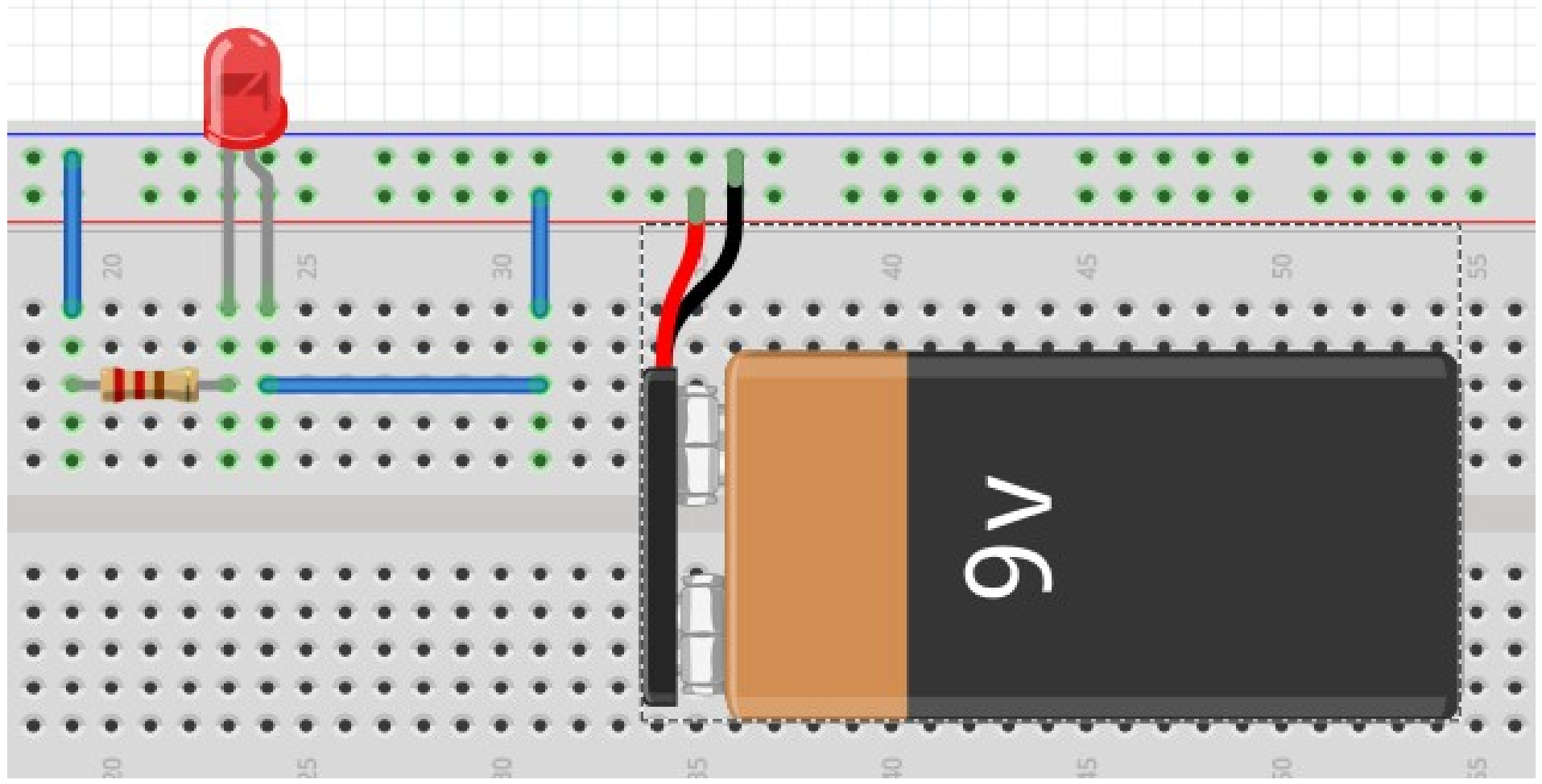
Licenciado em Física  
Universidade de São Paulo



**LIGAÇÃO VERTICAL**

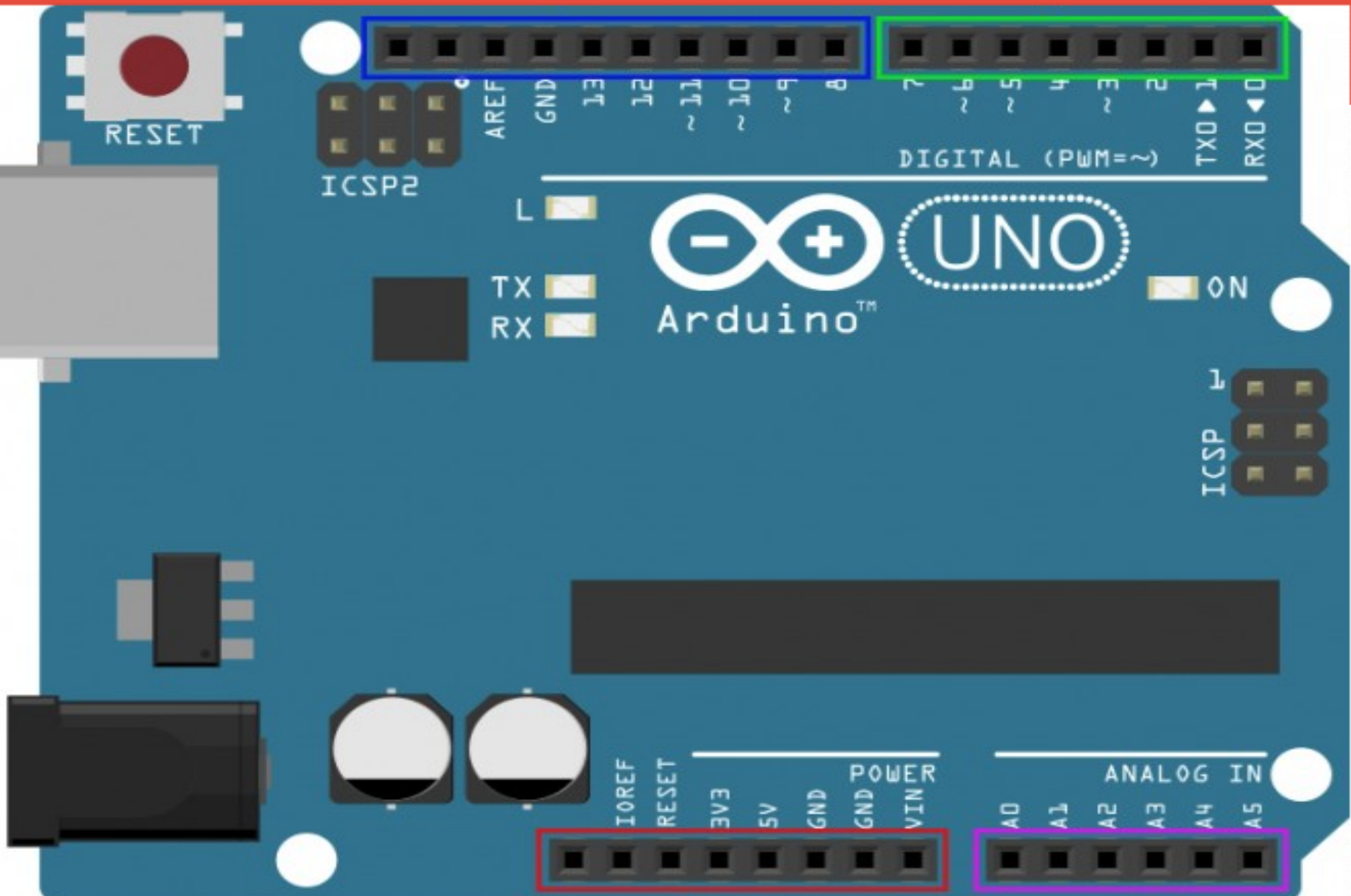
PROTOVIEW

**LIGAÇÃO HORIZONTAL**



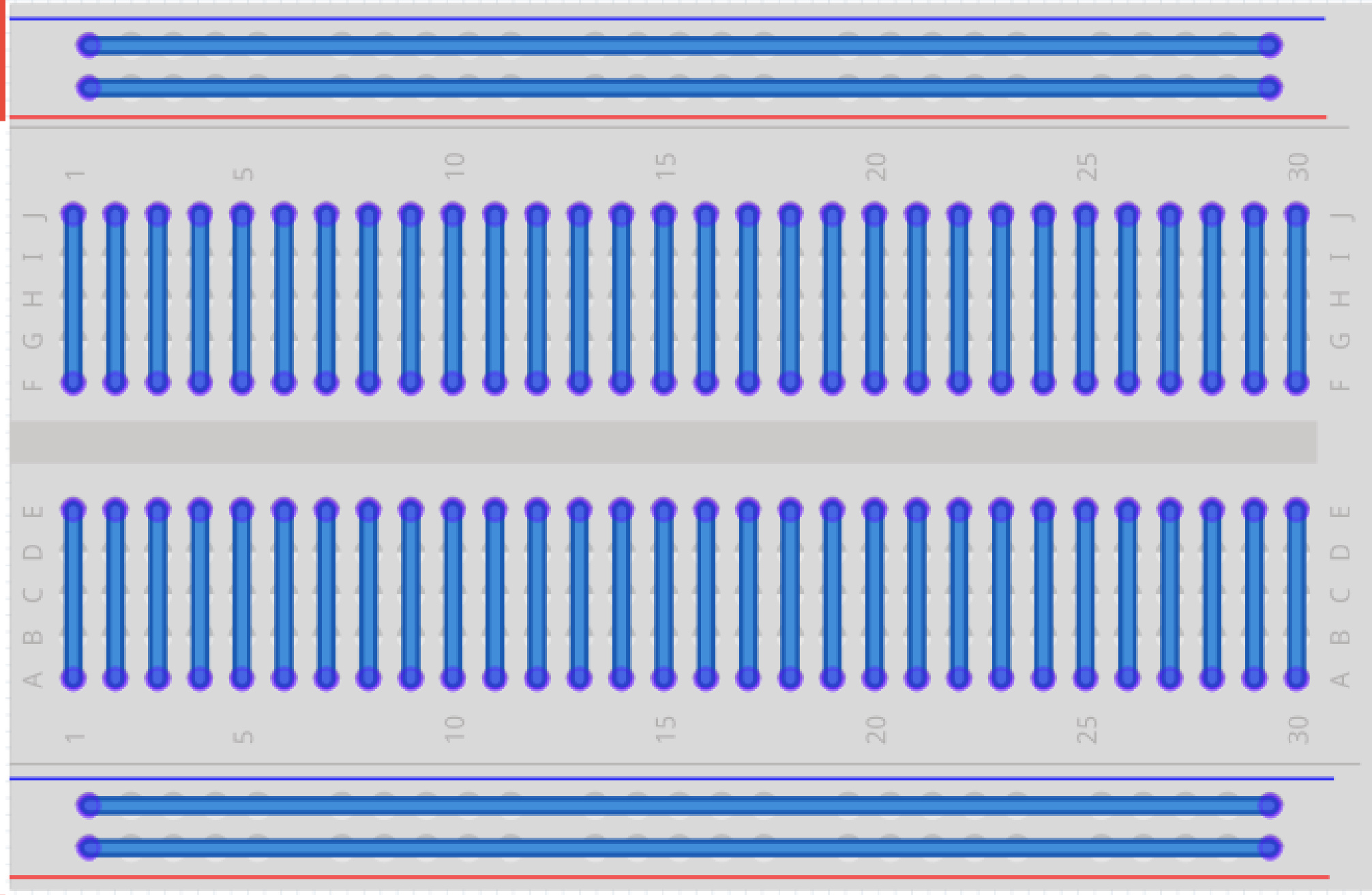
Pinos Digitais de 8 A 13

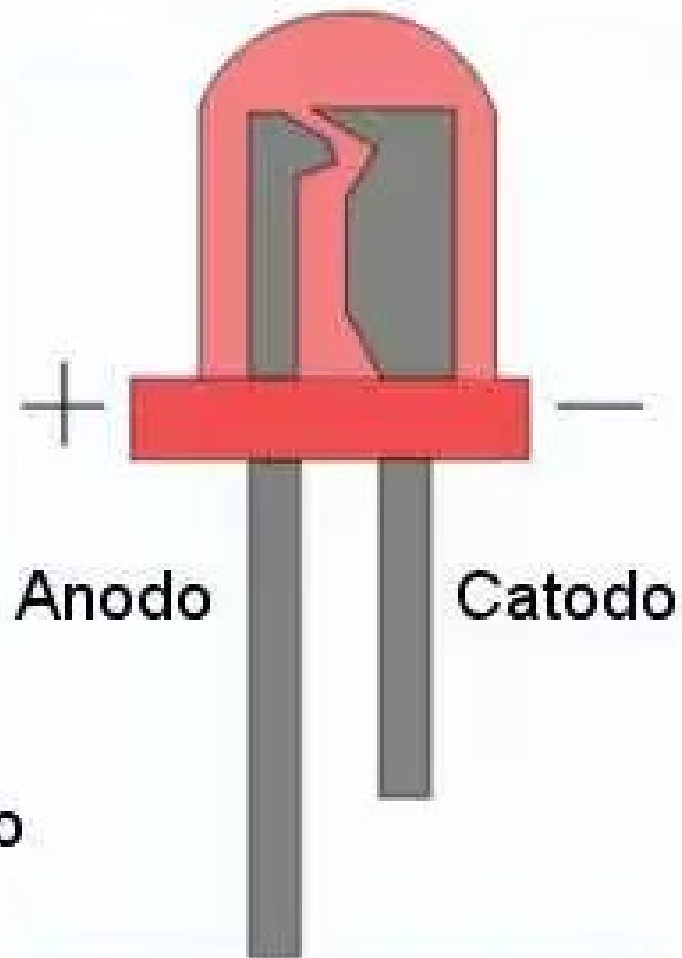
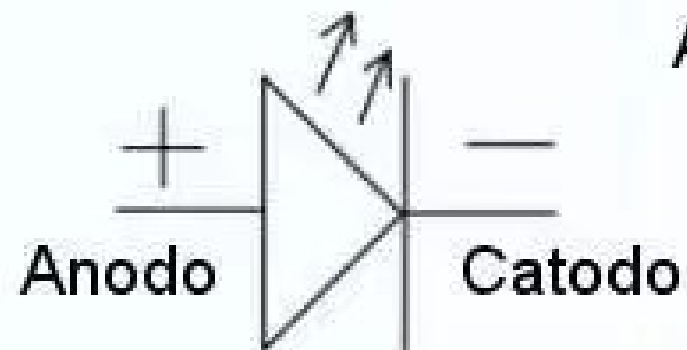
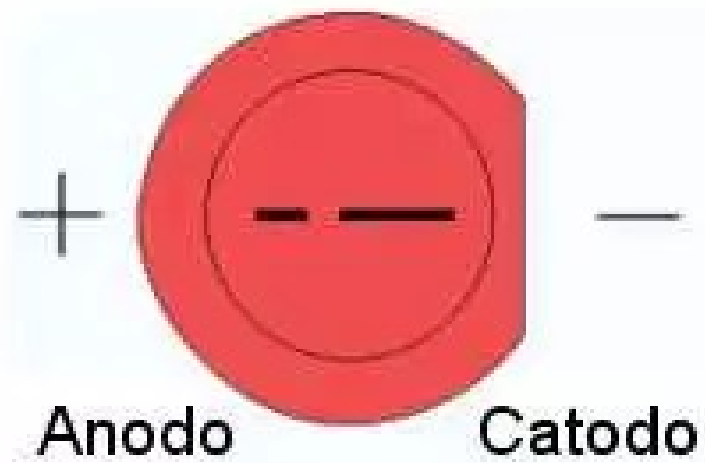
Pinos Digitais de 0 a 7



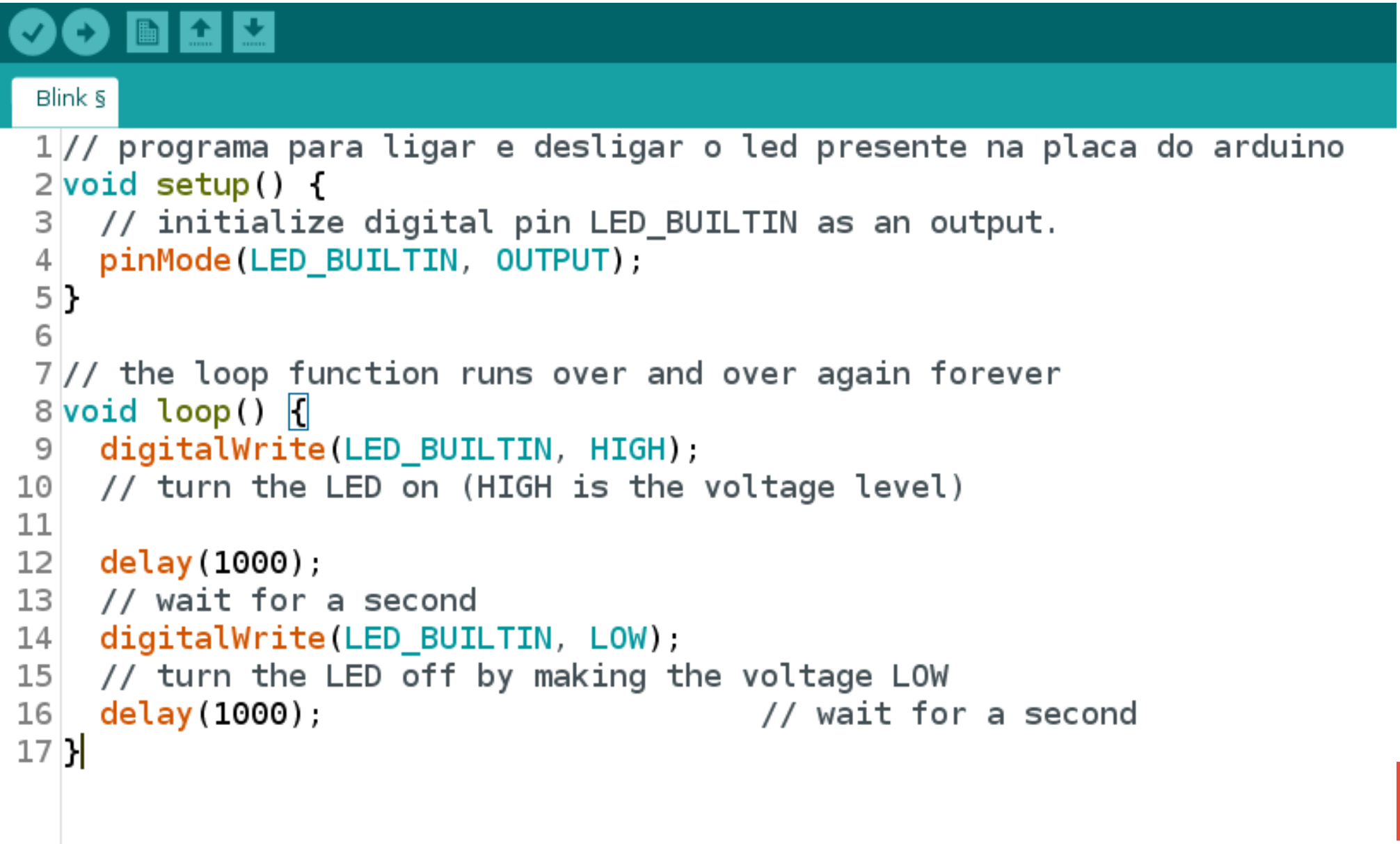
Pinos de Alimentação

Pinos Analógicos





# Vamos usar o arduino !



The image shows the Arduino IDE interface. At the top, there is a toolbar with icons for checking, running, saving, and uploading. Below the toolbar, the file name "Blink.s" is displayed. The main area contains the following C++ code:

```
1 // programa para ligar e desligar o led presente na placa do arduino
2 void setup() {
3     // initialize digital pin LED_BUILTIN as an output.
4     pinMode(LED_BUILTIN, OUTPUT);
5 }
6
7 // the loop function runs over and over again forever
8 void loop() {
9     digitalWrite(LED_BUILTIN, HIGH);
10    // turn the LED on (HIGH is the voltage level)
11
12    delay(1000);
13    // wait for a second
14    digitalWrite(LED_BUILTIN, LOW);
15    // turn the LED off by making the voltage LOW
16    delay(1000);           // wait for a second
17 }
```



Blink \$

**Bloco de  
Variáveis**

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


**Setup do  
Código**

```
void loop() {  
  digitalWrite(LED_BUILTIN, HIGH);  
  delay(1000);  
  digitalWrite(LED_BUILTIN, LOW);  
  delay(1000);  
}
```


**Loop  
Principal****Demais  
Funções**

Autoformatação concluída.



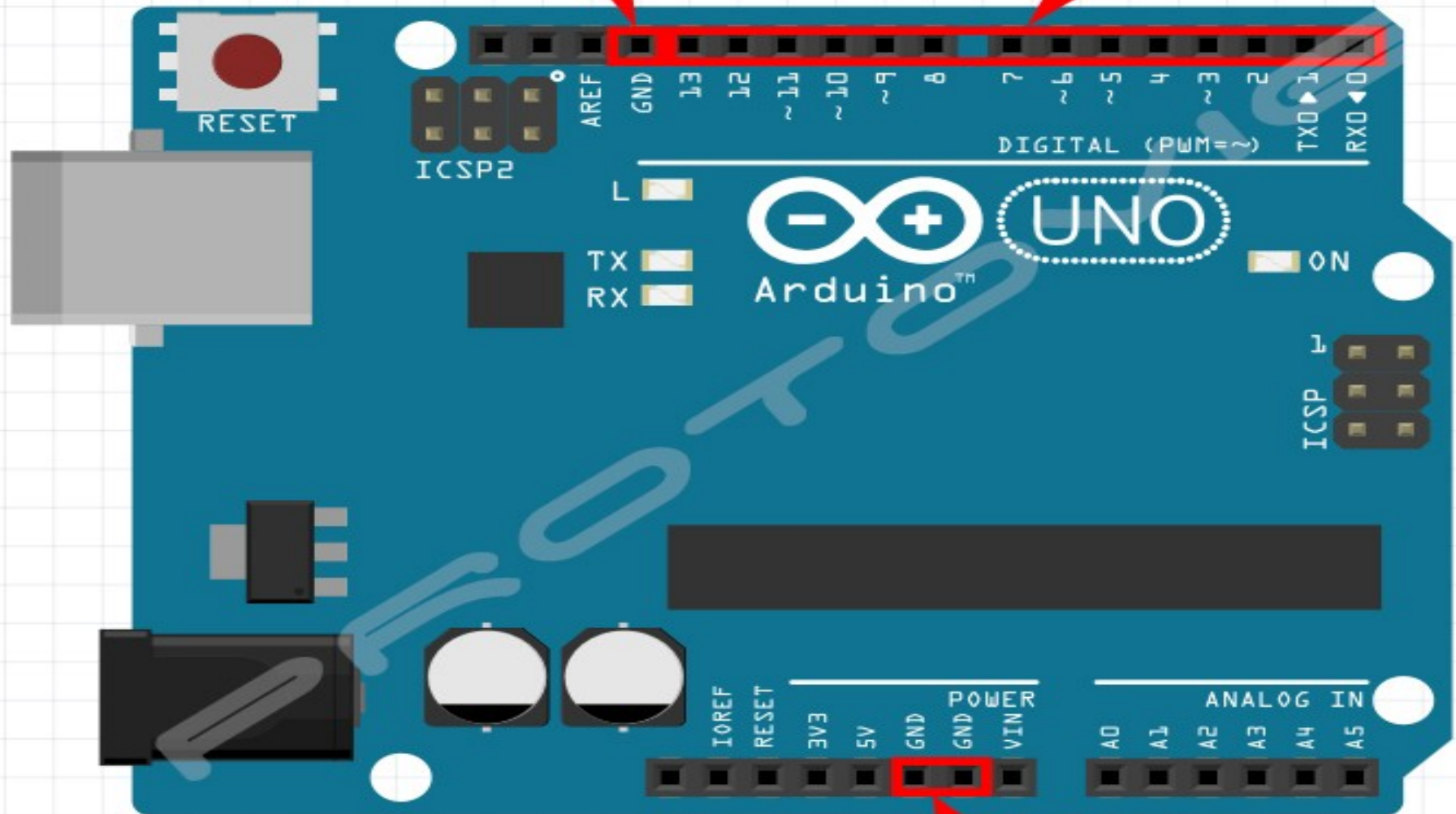


```
int led = 12;
void setup() {
    pinMode(led, OUTPUT);
}
void loop() {
    digitalWrite(led,HIGH);
    Delay(1000);
    digitalWrite(led, LOW);
    Delay(1000);
}
```



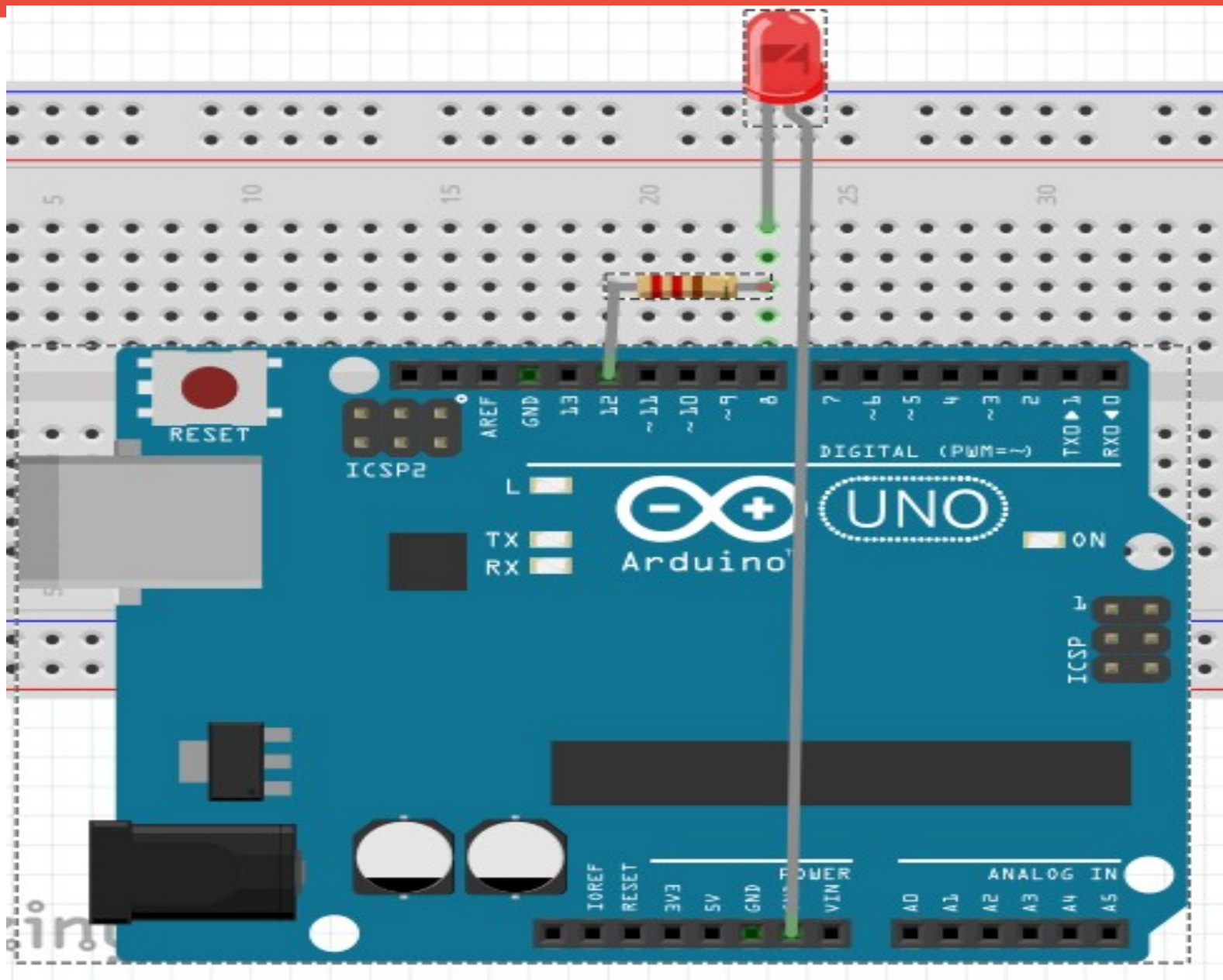
**GROUND**

**PORTAS DIGITAIS**



**GROUND**

# Ligando led em uma porta do Arduino



# **Vanderlei Franco**

## **Agradecimentos**

**A minha família pela paciência e compreesão**

**Aos mantenedores por ceder espaço e  
equipamentos**