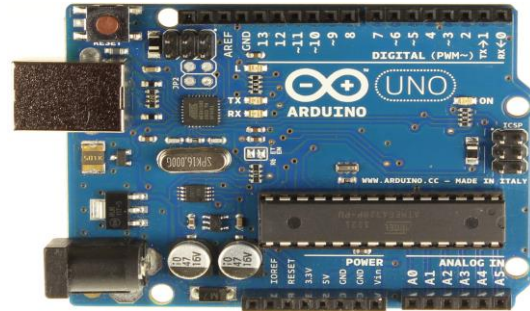
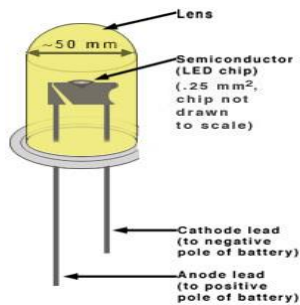


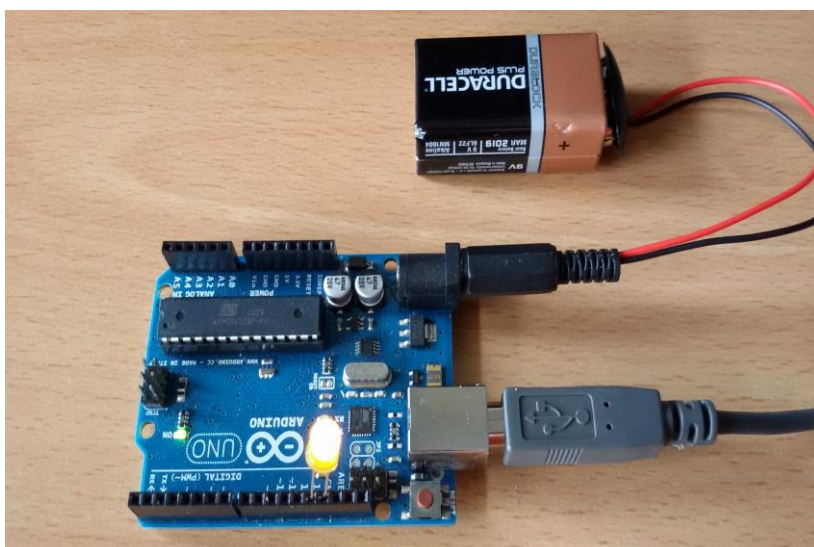
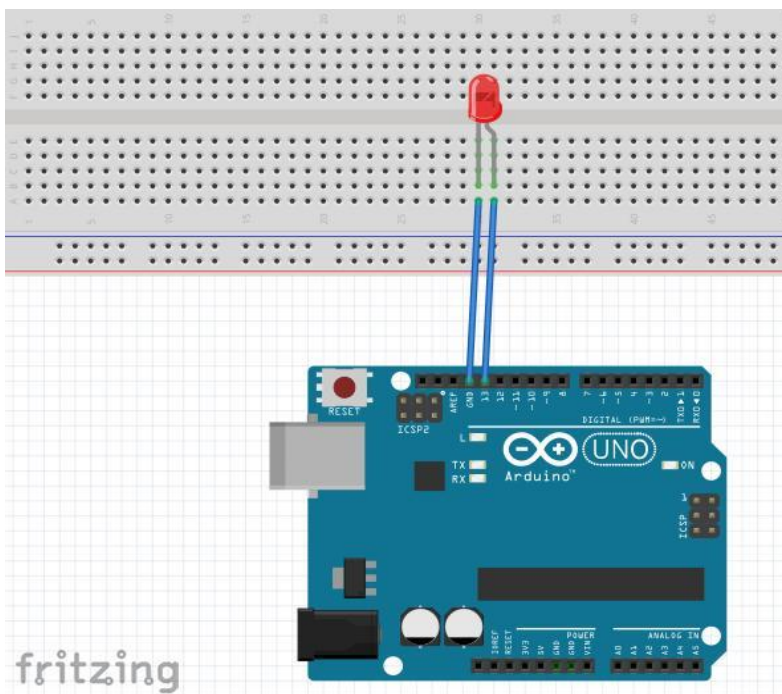
Practice 1 – Flashing of a LED



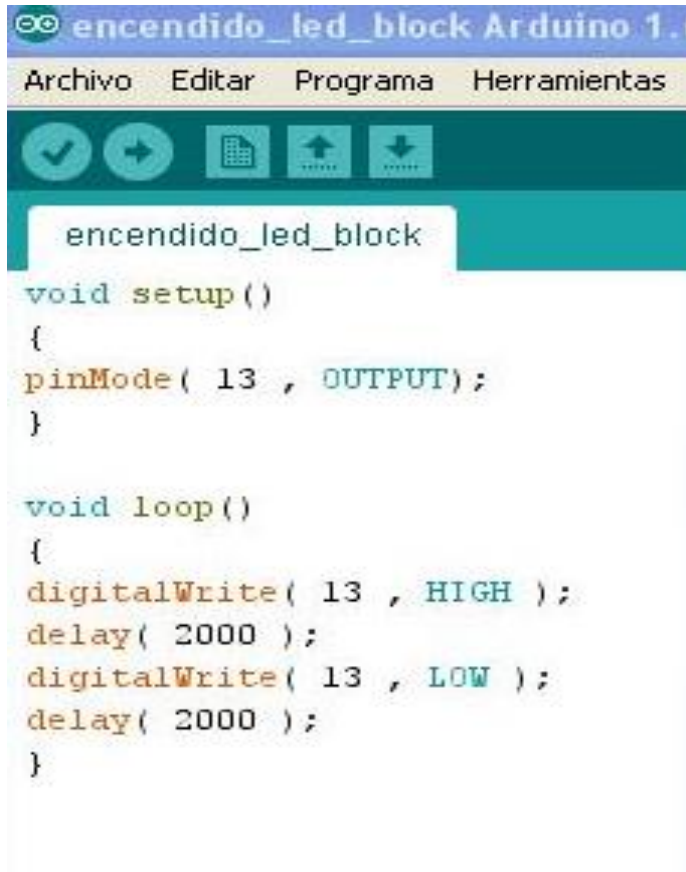
To carry out this practice we will use a protoboard board, a led and an Arduino board. It is about connecting the positive pole of the LED to the 13 digital pins and the negative pole to the digital GND pin, as it appears in the diagram below.

Once connected, let's think about the steps that must be taken to program the Arduino board in such a way that a cycle is performed in which the LED turns on and off for a few seconds

The sequence can be seen in the following flowchart:



The Arduino instructions that will allow us to perform this sequence are the ones that appear in the image below:



```
encendido_led_block Arduino 1.0
Archivo  Editar  Programa  Herramientas

encendido_led_block

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

void loop()
{
  digitalWrite( 13 , HIGH );
  delay( 2000 );
  digitalWrite( 13 , LOW );
  delay( 2000 );
}
```

The program starts with `void setup ()`

In this zone of the program it is necessary to indicate which pins of the plate we are going to use and if they will serve as input or output. In this case:

`pinMode (13, OUTPUT);`

We chose the pin 13 as an output element.

In `void loop ()` we enter the instructions that are going to happen in a continuous loop.

`digitalWrite (13, HIGH);` this instruction indicates that the pin 13 is set to high state, I mean it is activated.

`delay (2000);` Wait 2000 milliseconds.

`digitalWrite (13, LOW);` Now the pin 13 is turned off.

`delay (2000);` wait another 2 seconds before performing the next action.