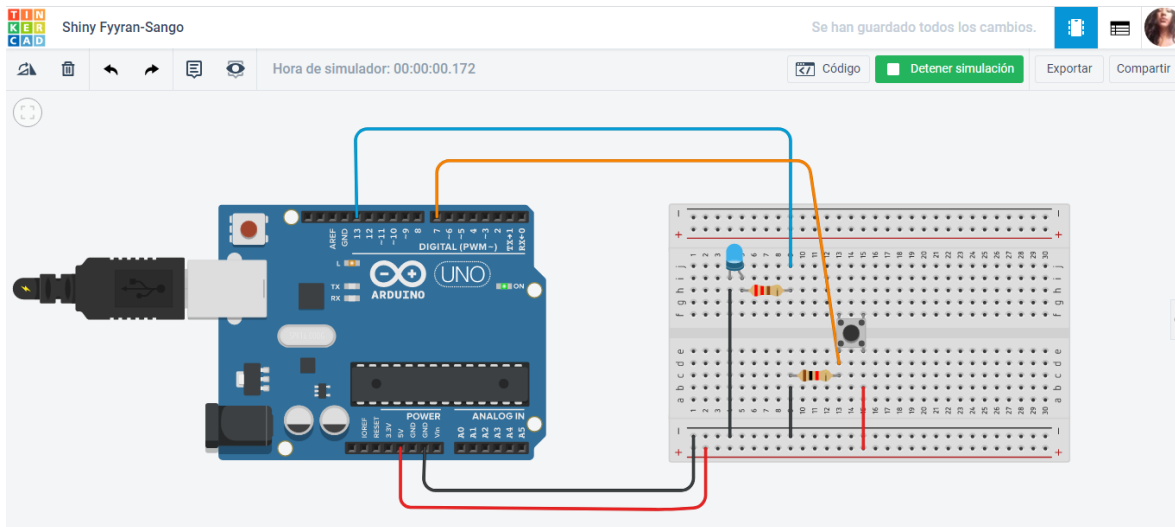


Práctica 1. Parpadeo de un LED con Arduino UNO

PARTE 4. blinkBoton

Para esta parte de la práctica, utilizará el circuito que aparece en la siguiente imagen.



Una vez realizado el circuito, teclee el siguiente código.

```
1 // constants won't change. They're used here to set pin numbers:
2 const int buttonPin = 7; // the number of the pushbutton pin
3 const int ledPin = 13; // the number of the LED pin
4
5 // Variables will change:
6 int ledState = HIGH; // the current state of the output pin
7 int buttonState; // the current reading from the input pin
8 int lastButtonState = LOW; // the previous reading from the input pin
9
10 // the following variables are unsigned longs because the time, in
11 // milliseconds, will quickly become a bigger number than can be
12 // stored in an int.
13 unsigned long lastDebounceTime = 0; // the last time the output pin was
14 // toggled
15 unsigned long debounceDelay = 50; // the debounce time; increase if
16 // the button has noise
17
18 void setup() {
19   pinMode(buttonPin, INPUT);
20   pinMode(ledPin, OUTPUT);
21
22   // set initial LED state
23   digitalWrite(ledPin, ledState);
24 }
25
26 void loop() {
27   // read the state of the switch into a local variable:
28   int reading = digitalRead(buttonPin);
29
30   // check to see if you just pressed the button
31   // (i.e. the input went from LOW to HIGH), and you've waited long
32   // enough since the last press to ignore any noise:
33
34   // If the switch changed, due to noise or pressing:
35   if (reading != lastButtonState) {
36     // reset the debouncing timer
37     lastDebounceTime = millis();
38   }
39
40   if ((millis() - lastDebounceTime) > debounceDelay) {
41     // whatever the reading is at, it's been there for longer than the
42     // delay, so take it as the actual current state:
43
44     // if the button state has changed:
45     if (reading != buttonState) {
46       buttonState = reading;
47
48       // only toggle the LED if the new button state is HIGH
49       if (buttonState == HIGH) {
50         ledState = !ledState;
51       }
52     }
53   }
54   digitalWrite(ledPin, ledState);
55 }
```