

5a. Hello World!

A "Hello World!" in the Arduino sphere is a blinking LED.

You just need an Arduino and a USB cable.

Open an new file in the IDE, name and save it.

Then type the following text into the Arduino sketch editor but you can skip the lines starting with a `//` as they are comments.

```
// LED connected to digital pin 13
const int ledPin = 13;

// the setup function runs once when you press reset
// or power the board
void setup() {
    // initialize digital pin 13 as an output.
    pinMode(ledPin, OUTPUT);
}

// the loop function runs over and over
void loop() {
    // turn the LED on (HIGH is the voltage level)
    digitalWrite(ledPin, HIGH);
    // wait for 1000 milliseconds or 1 second
    delay(1000);
    // turn the LED off by making the voltage LOW
    digitalWrite(ledPin, LOW);
    // wait for another second
    delay(1000);
}
```

Press the Verify button to check if your code is correct. If everything is fine, you'll see the message "Done compiling" appear at the bottom of the Arduino IDE.

Now you can upload it into the board. Press the Upload to I/O Board button.

When it went fine you'll see the message "Done uploading" appear to let you know the process has completed correctly.

You can adjust the values of the 2 delay times to see changes in blinking rhythm. Don't forget to compile and upload the code after you made changes.