

Internet de las Cosas

Arduino Programación



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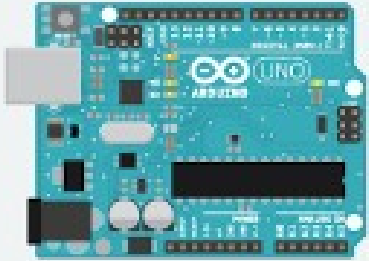



Herramientas de Desarrollo oficiales


Página Oficial



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Arduino

- **Descargar el software oficial:**



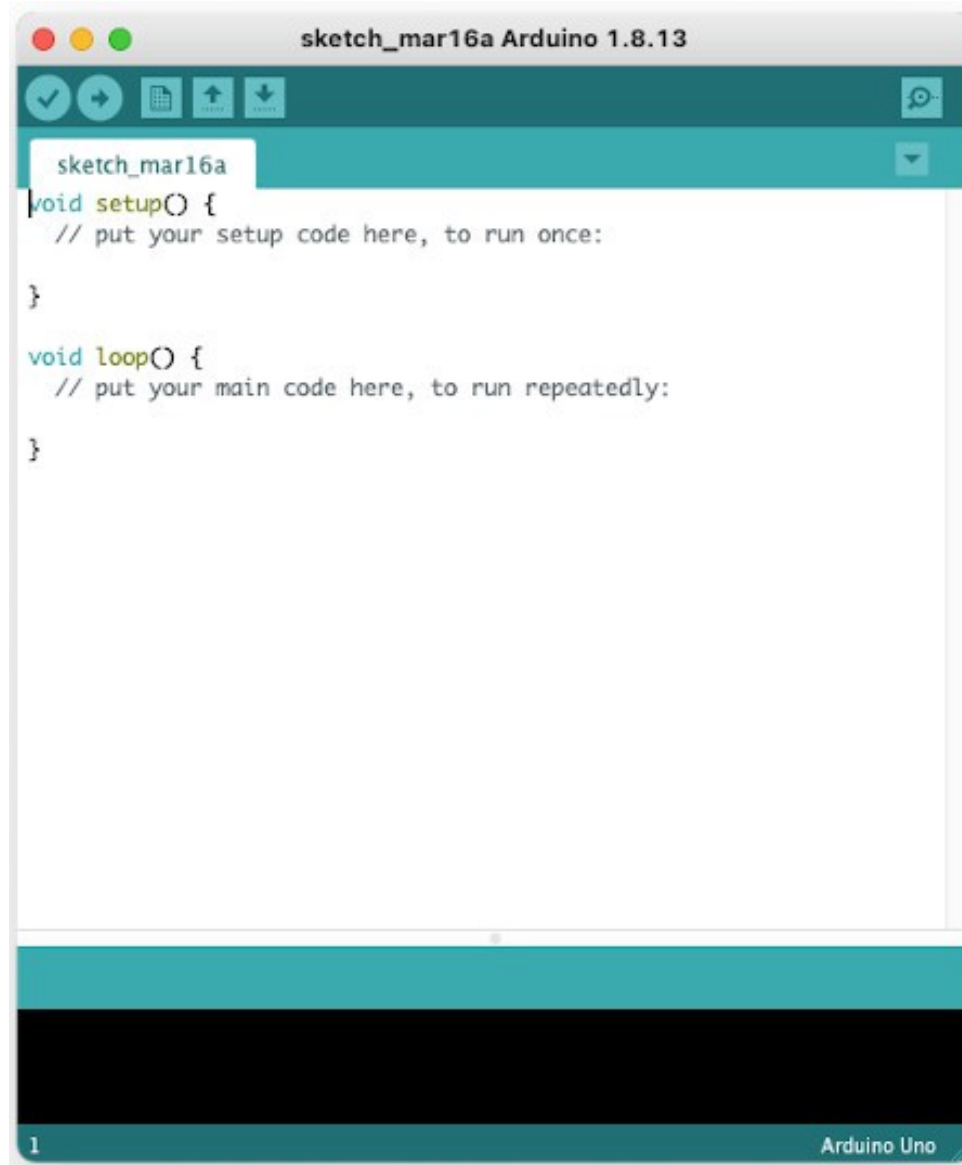
Downloads

A screenshot of the Arduino IDE 1.8.13 download page. The page features the Arduino logo and the text 'Arduino IDE 1.8.13'. Below this, it states: 'The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board. Refer to the Getting Started page for Installation instructions.' There is a 'SOURCE CODE' link. On the right side, under 'DOWNLOAD OPTIONS', the following options are listed: 'Windows Win 7 and newer ZIP file', 'Windows app Win 8.1 or 10' (with a 'Get' button), 'Linux 32 bits', 'Linux 64 bits', 'Linux ARM 32 bits', 'Linux ARM 64 bits', and 'Mac OS X 10.10 or newer'.

Entorno de Programación

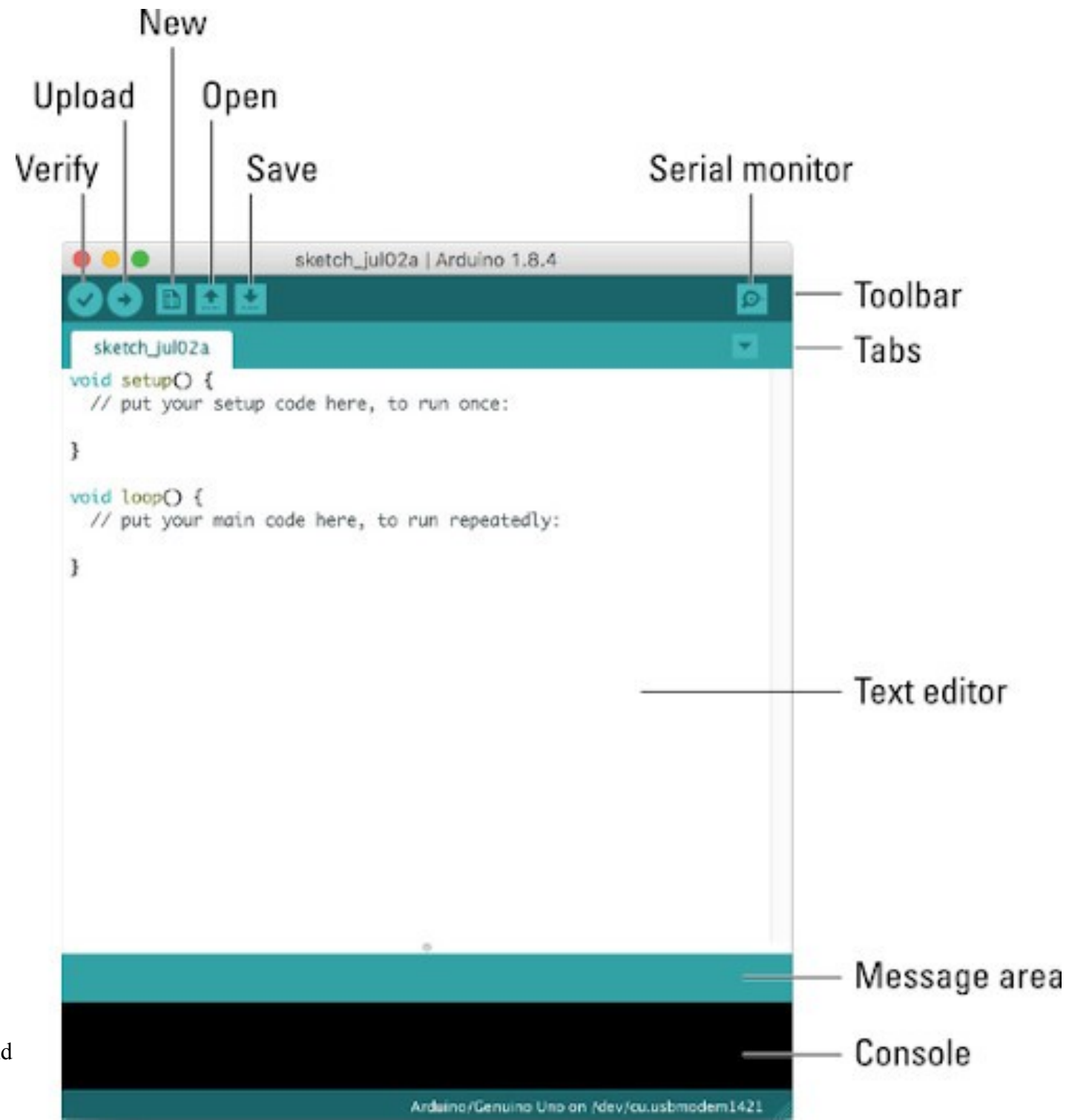
Arduino

- **Arranque del IDE:**



Arduino

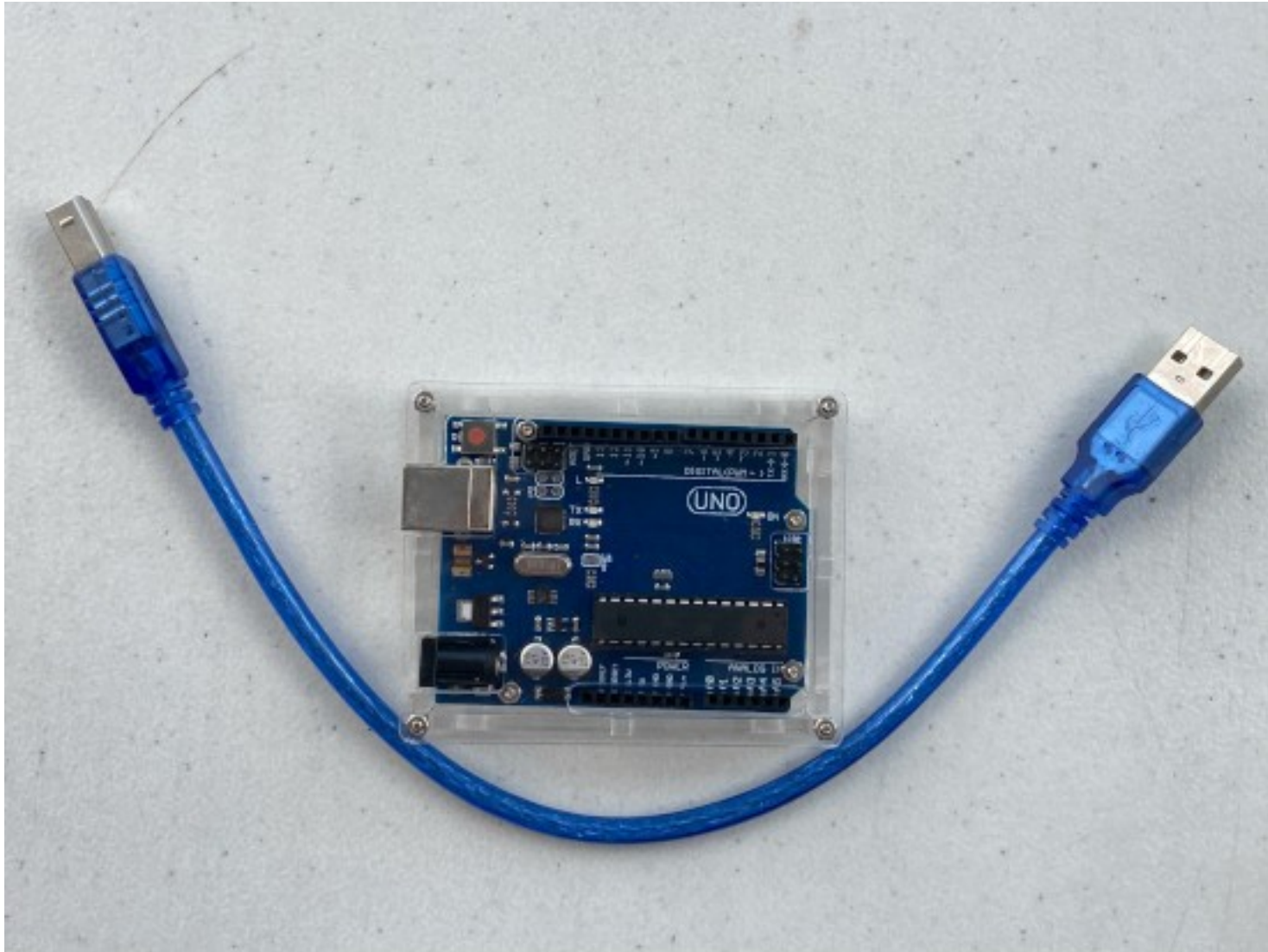
- **IDE:**



Conexión y Configuración inicial

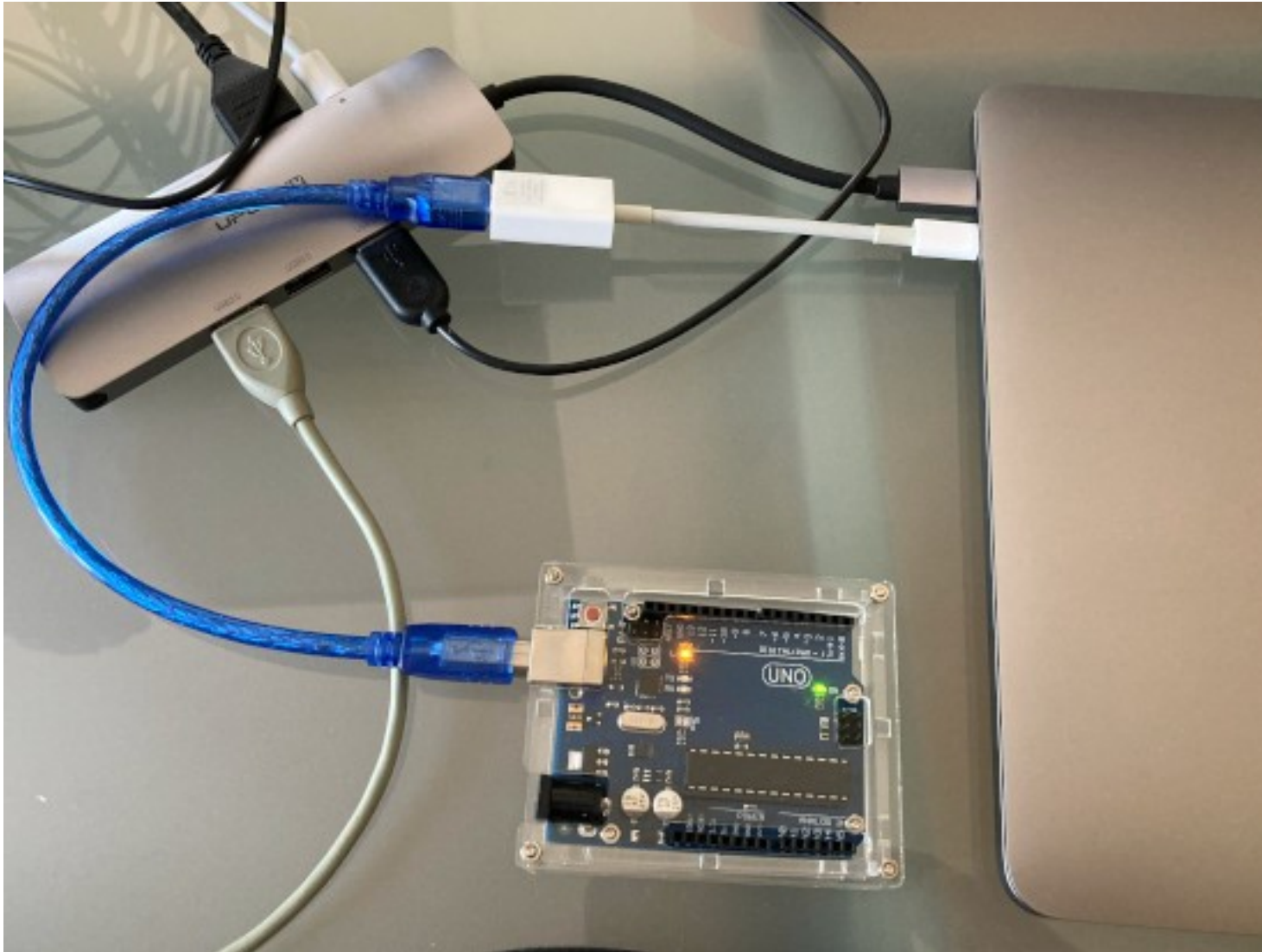
Arduino

- **Material:**



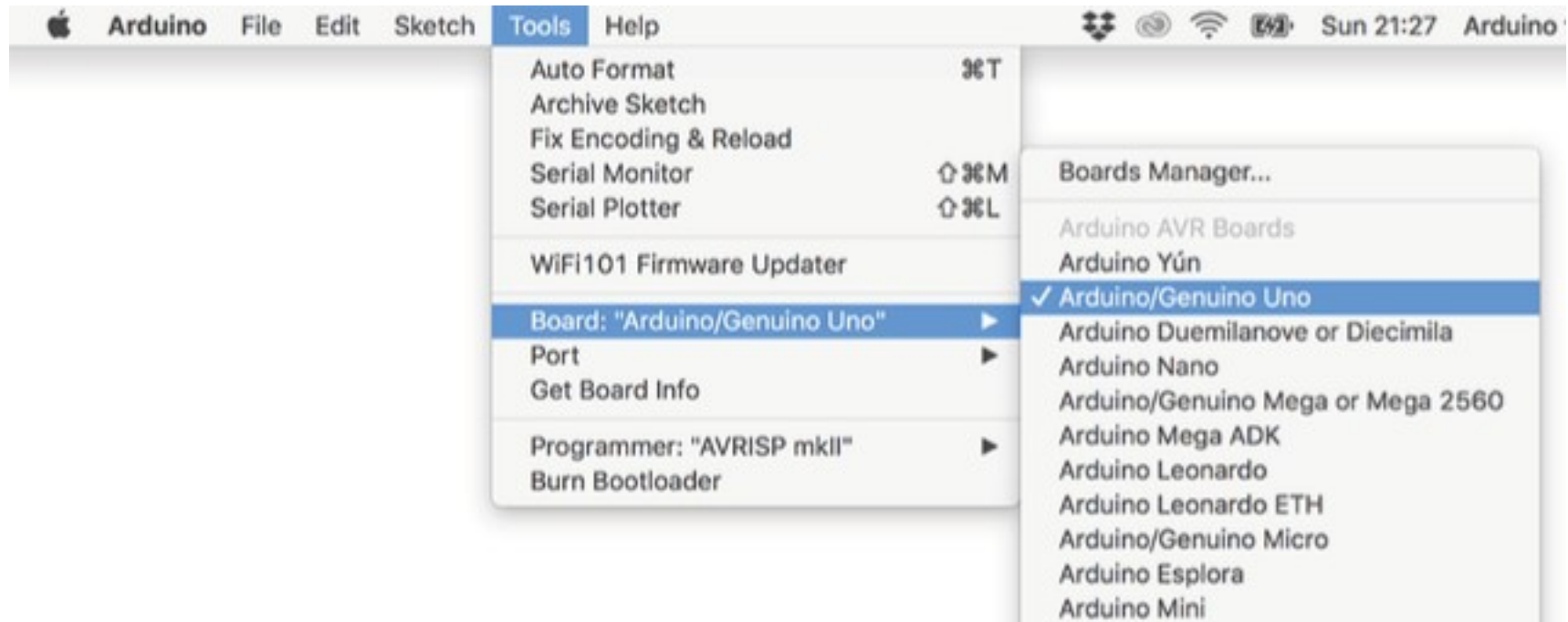
Arduino

- **Conexión vía USB:**



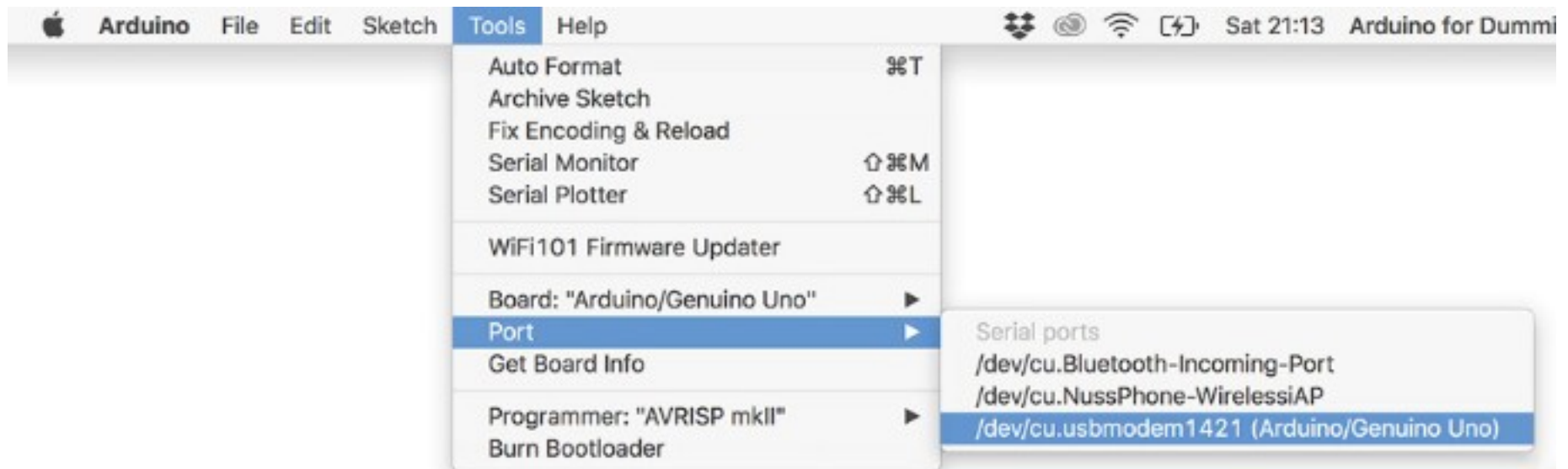
Arduino

- **Seleccionar el modelo de Arduino:**



Arduino

- **Seleccionar el puerto de comunicación:**



Hola Mundo

Arduino

- **Plantilla básica inicial del IDE:**

```
void setup() {  
    // put your setup code here, to run once:  
  
}  
  
void loop() {  
    // put your main code here, to run repeatedly:  
  
}
```

Arduino

- **Configurar led integrado como de salida:**

```
void setup() {  
  // put your setup code here, to run once:  
  
  pinMode(LED_BUILTIN, OUTPUT);  
  
}
```

Arduino

- Prender por un segundo el led y después mantenerlo apagado otro segundo:

```
void loop() {  
    // put your main code here, to run repeatedly:  
  
    digitalWrite(LED_BUILTIN, HIGH);  
    delay(1000);  
    digitalWrite(LED_BUILTIN, LOW);  
    delay(1000);  
}
```

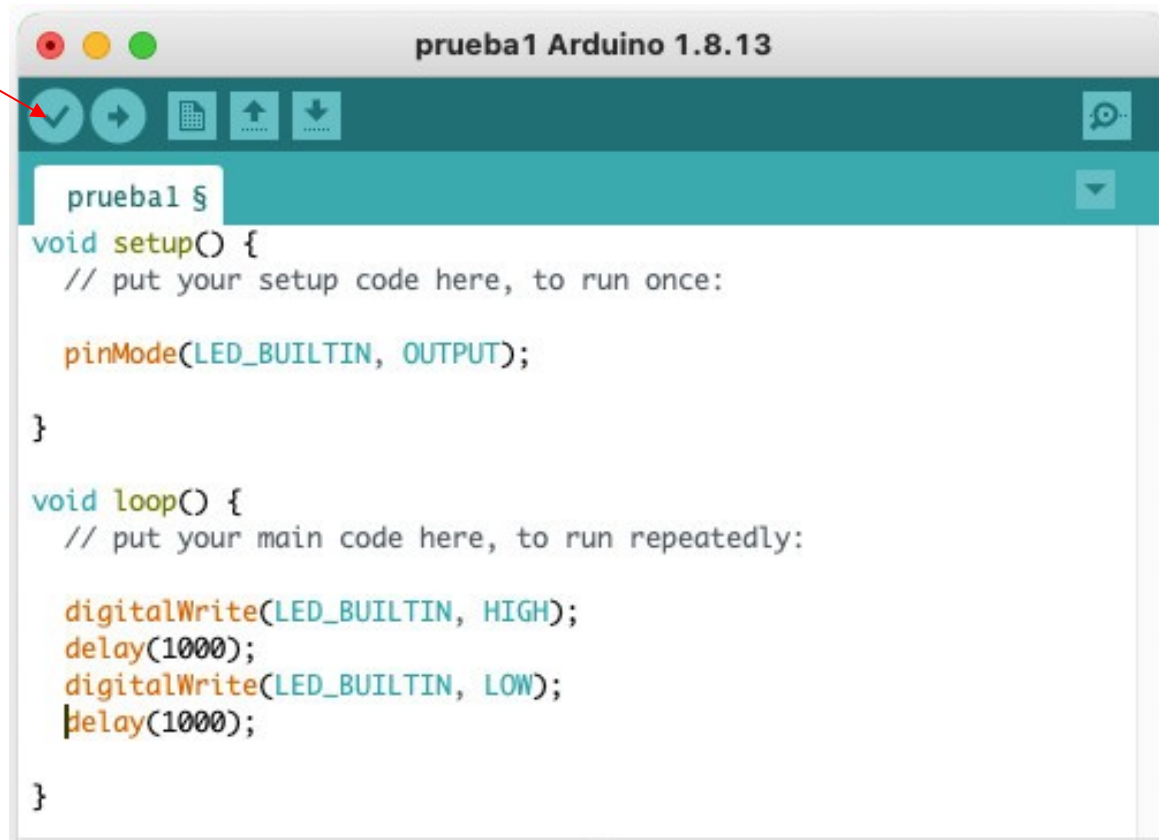

Arduino

- Prender por un segundo el led y después mantenerlo apagado otro segundo (código completo):

```
void setup() {  
    // put your setup code here, to run once:  
  
    pinMode(LED_BUILTIN, OUTPUT);  
  
}  
  
void loop() {  
    // put your main code here, to run repeatedly:  
  
    digitalWrite(LED_BUILTIN, HIGH);  
    delay(1000);  
    digitalWrite(LED_BUILTIN, LOW);  
    delay(1000);  
  
}
```

Arduino

- **Verificar:**



The screenshot shows the Arduino IDE window titled "prueba1 Arduino 1.8.13". The interface includes a toolbar with several icons: a checkmark (Verify), a right-pointing arrow (Compile), a grid (New), an up arrow (Previous), and a down arrow (Next). A red arrow points to the checkmark icon. Below the toolbar is a text area containing the following code:

```
prueba1 §
void setup() {
  // put your setup code here, to run once:

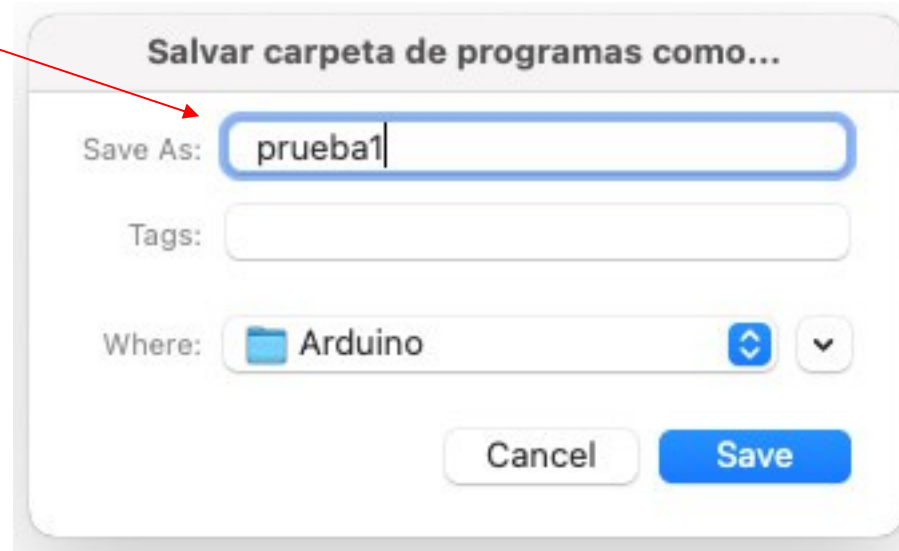
  pinMode(LED_BUILTIN, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:

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

Arduino

- Si es la primera vez pregunta por el nombre del archivo:



Arduino

- Indica que ya está verificado y listo para descargarse:



Arduino

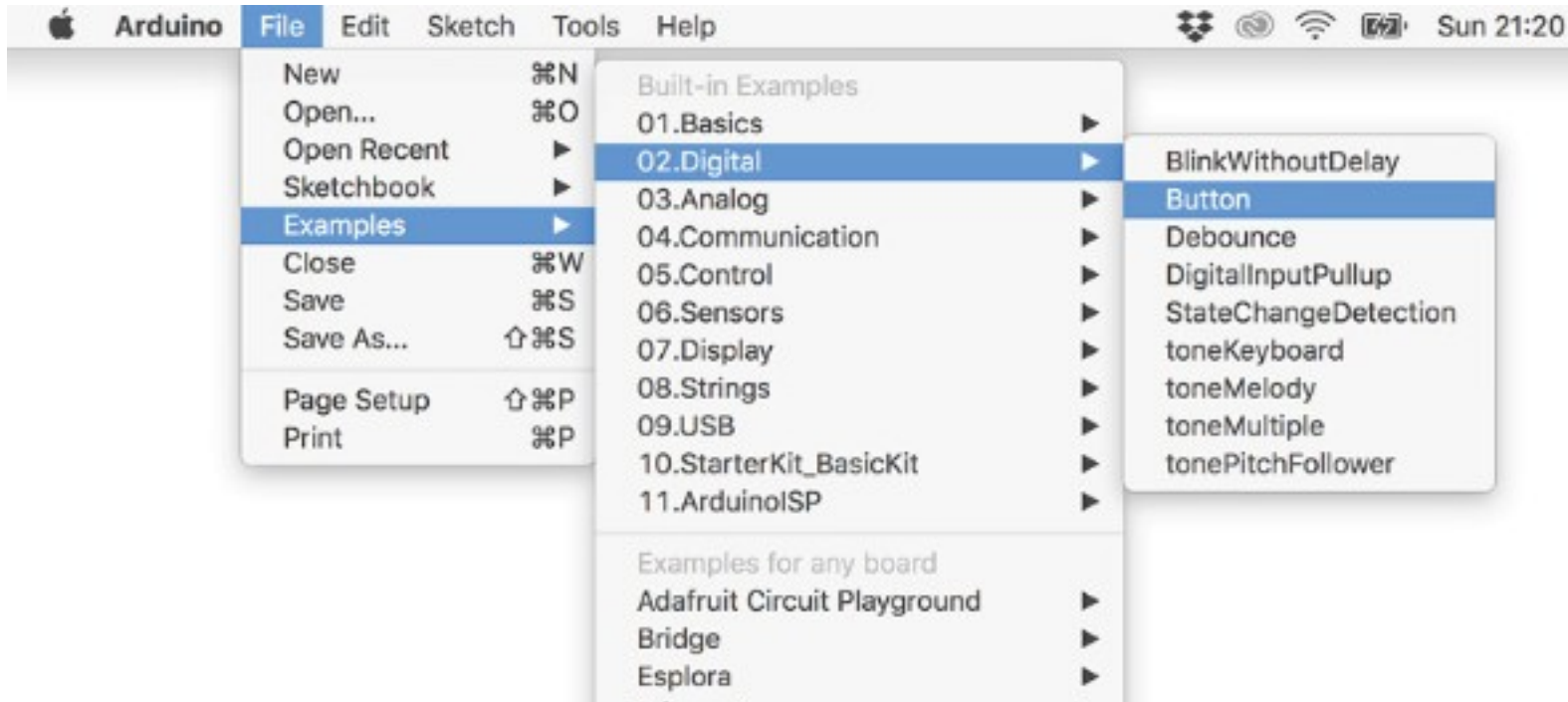
- Subir (hace click aquí para transferir al Arduino físico):



Ejemplos precargados

Arduino

- Ejemplos precargados para probar:





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