

Paper: Flash Firmware & Run Code

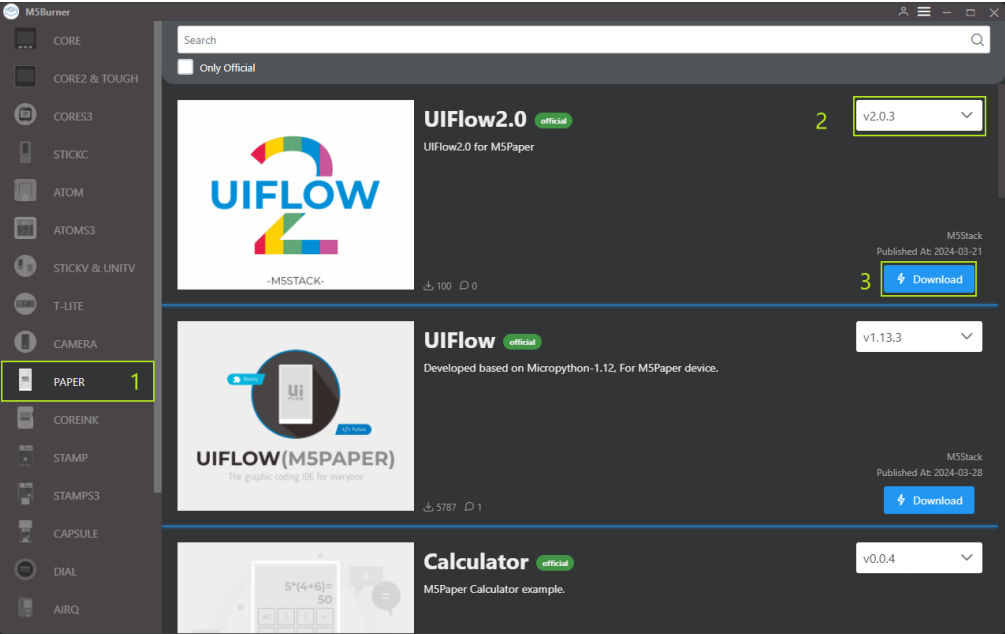
1. USB Driver Installation

Click the links below to download the driver package that matches your operating system. There are currently two driver chip versions (CP210X / CH9102). Download the corresponding driver package according to the version you are using. After extracting the package, select the installer that matches your OS bitness. If you are not sure which USB chip your device uses, you can install both drivers. **CH9102_VCP_SER_MacOS v1.7** may report an error during installation, but it has actually been installed and can be ignored. If programs cannot be downloaded normally during use (for example, timeout or Failed to write to target RAM), try reinstalling the device driver.

Driver Name	Applicable Driver Chip	Download Link
CP210x_VCP_Windows	CP2104	Download
CP210x_VCP_MacOS	CP2104	Download
CP210x_VCP_Linux	CP2104	Download
CH9102_VCP_SER_Windows	CH9102	Download
CH9102_VCP_SER_MacOS v1.7	CH9102	Download

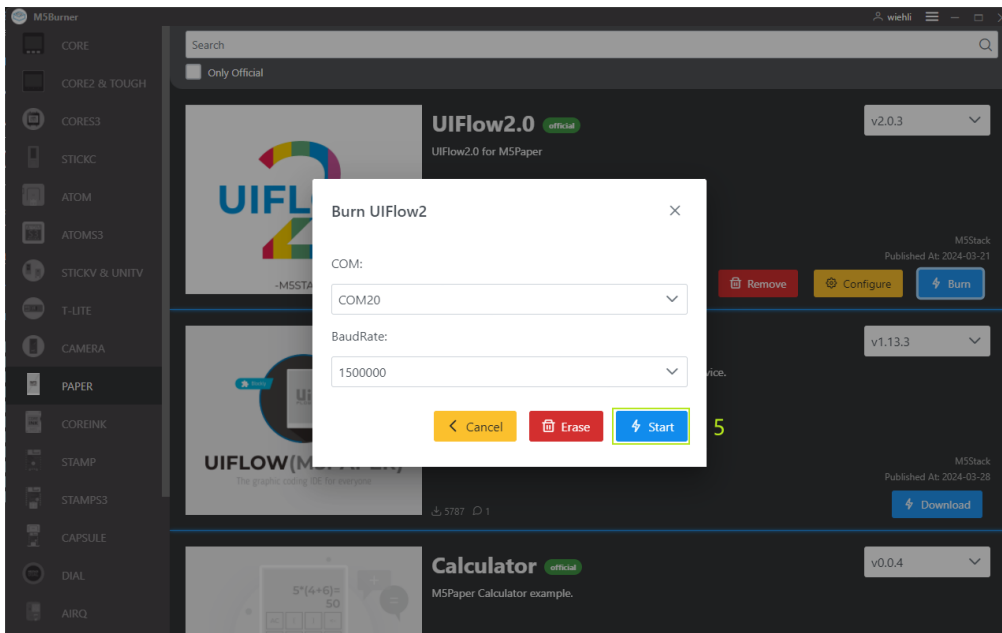
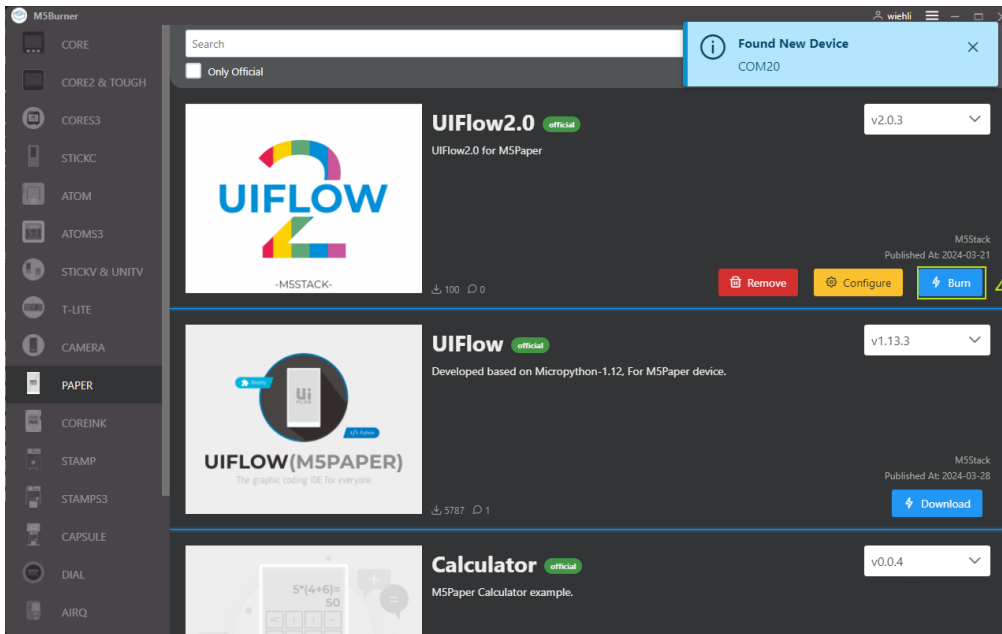
2. Flash UiFlow2 Firmware

1. Refer to the [UiFlow2 Web IDE Tutorial](#) to learn the basic workflow of UiFlow2 and install the M5Burner firmware flashing tool.
2. Download the firmware for **Paper** in M5Burner, as shown below.

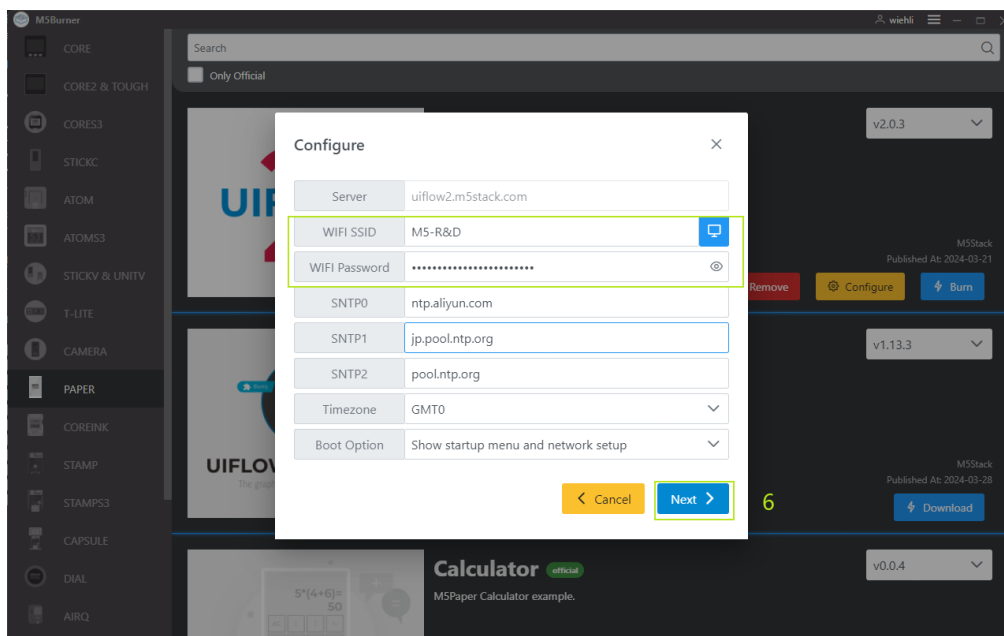


3. Connect the device to the computer with a USB cable. After the device powers on, plug in the USB port to enter download mode. When M5Burner displays **Found New Device**, the connection is successful. At this point, the device screen remains blank and the device enters programming mode.

4. In M5Burner, click the **Burn** button for the corresponding firmware, select the device port, and click **Start**.



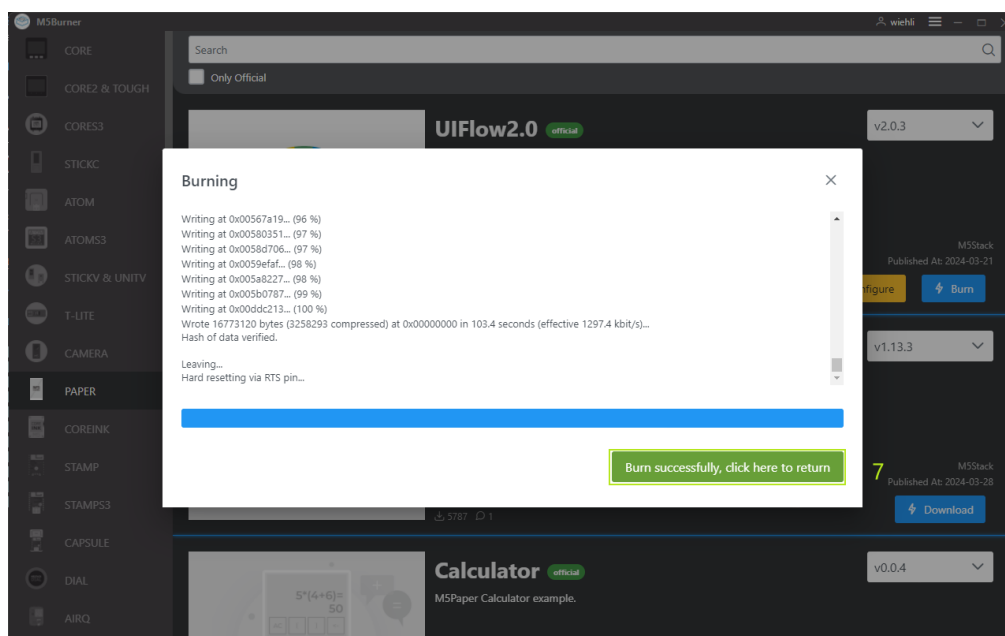
5. Enter the Wi-Fi configuration that the device needs to connect to, including Wi-Fi SSID and Wi-Fi Password, as well as any other device configuration that needs to be added or modified. Then click **Next** to start flashing.



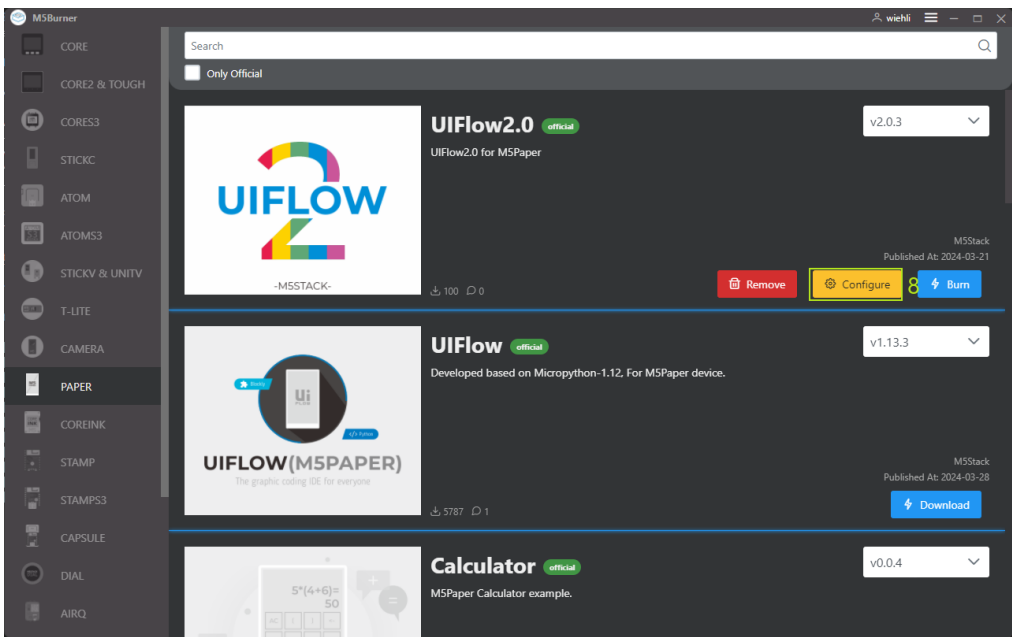
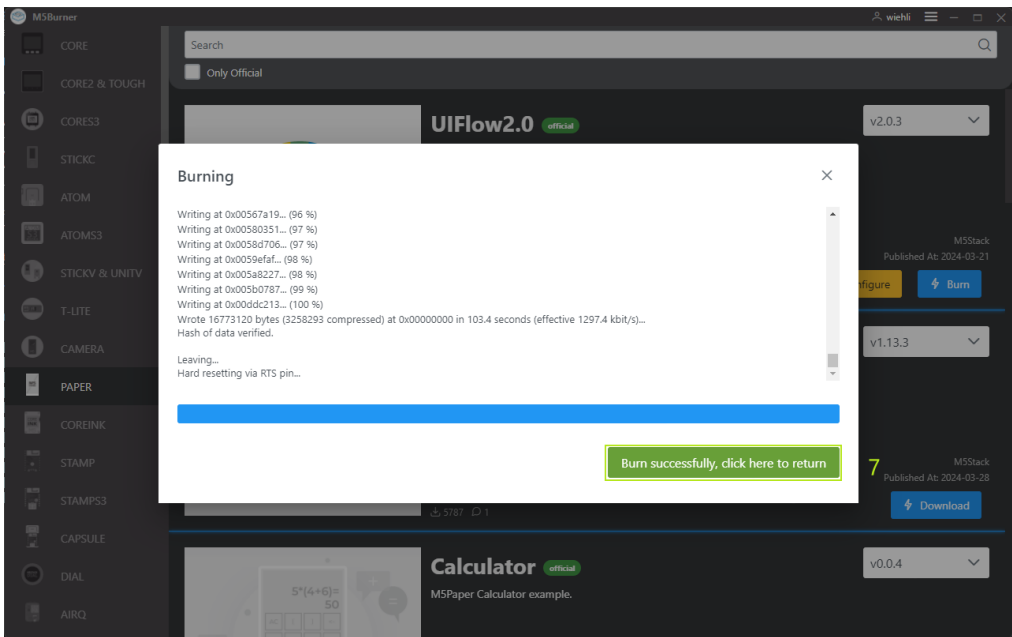
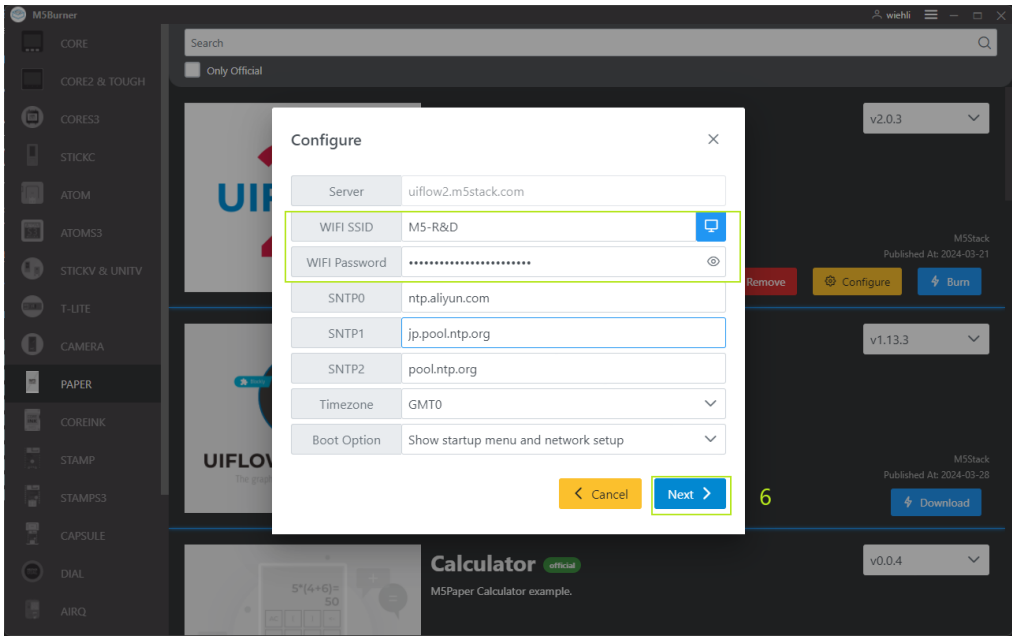
Configuration information:

- COM: Select the serial port corresponding to the device
- BaudRate: Baud rate for serial communication
- Server: Server address the device connects to
- WIFI SSID/WIFI Password: Wi-Fi name and password used by the device
- SNTP Server:
 - SNTP0: Alibaba Cloud NTP Server (China)
 - SNTP1: Japan NTP server pool
 - SNTP2: Global public NTP server pool
- Timezone: Time zone setting
- Boot Option: Set the device boot mode after firmware flashing
 - Run main.py directly: After flashing, directly run the program in main.py without connecting to the network or displaying the UiFlow2 startup screen
 - Show startup menu and network setup: The device connects to the network, and devices with screens display the UiFlow2 startup screen
 - Only network setup: The device only connects to the network and does not display the UiFlow2 startup screen

When **Burn** successfully, **click here to return** is displayed, the firmware has been flashed successfully.



6. After firmware flashing is complete, if you need to modify the device configuration, keep the USB connection, restart the device, and click **Configure**. Follow the on-screen prompts to make changes.

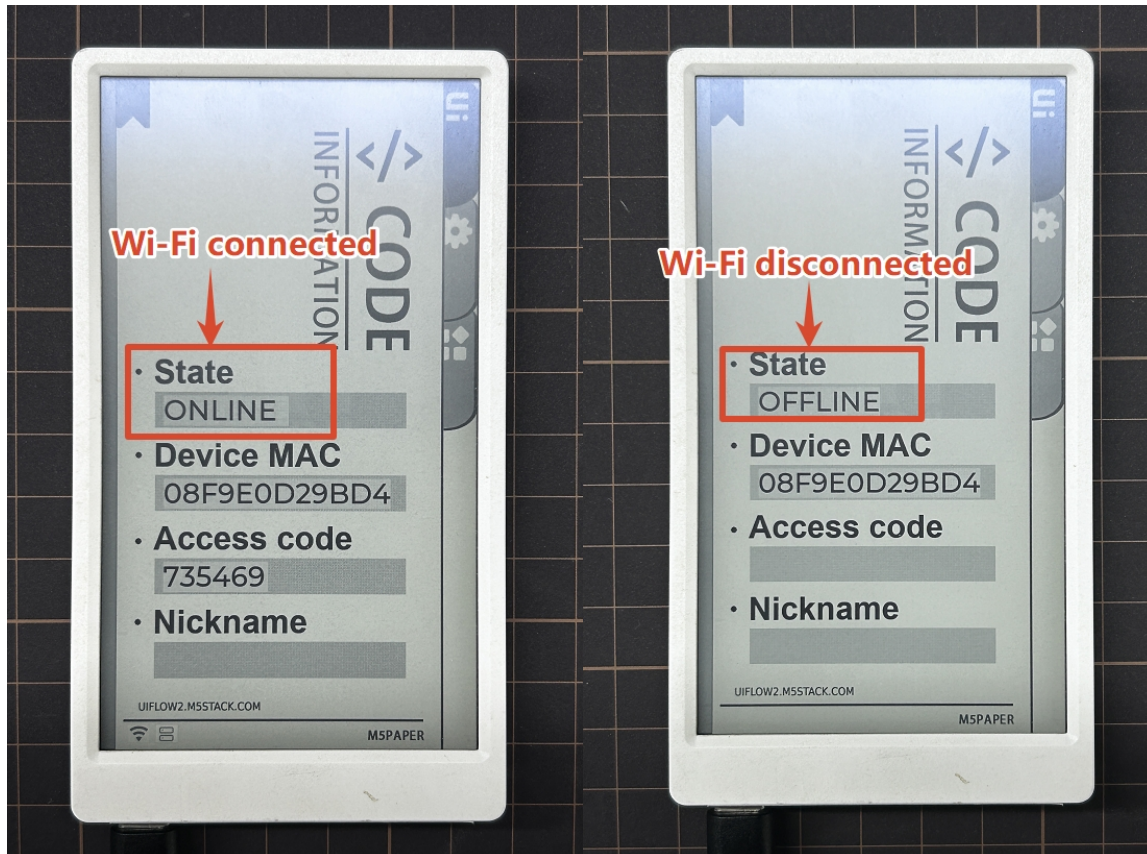


3. Device Connection

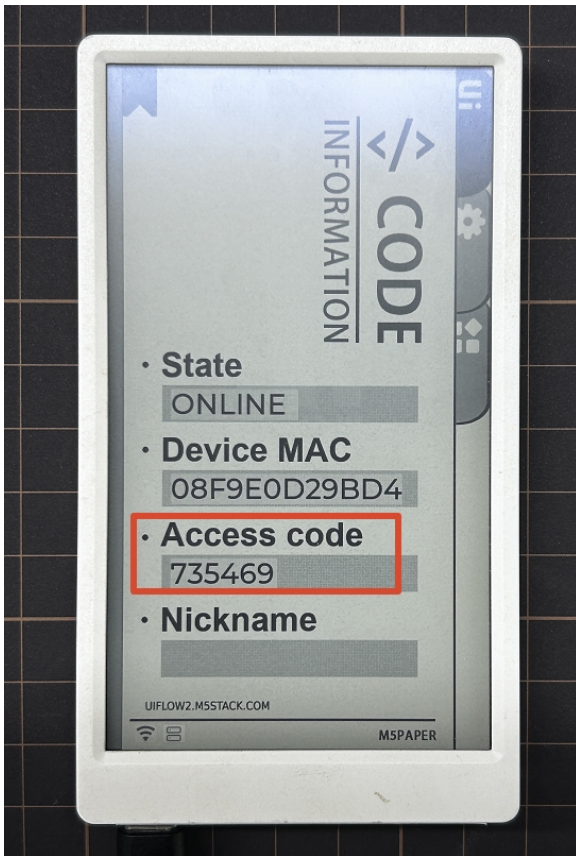
The device supports connecting to UiFlow2 via **Access Code** (wireless network) or **USB** (wired connection to a computer) for program upload and debugging. Refer to the following steps:

Access Code Wireless Connection

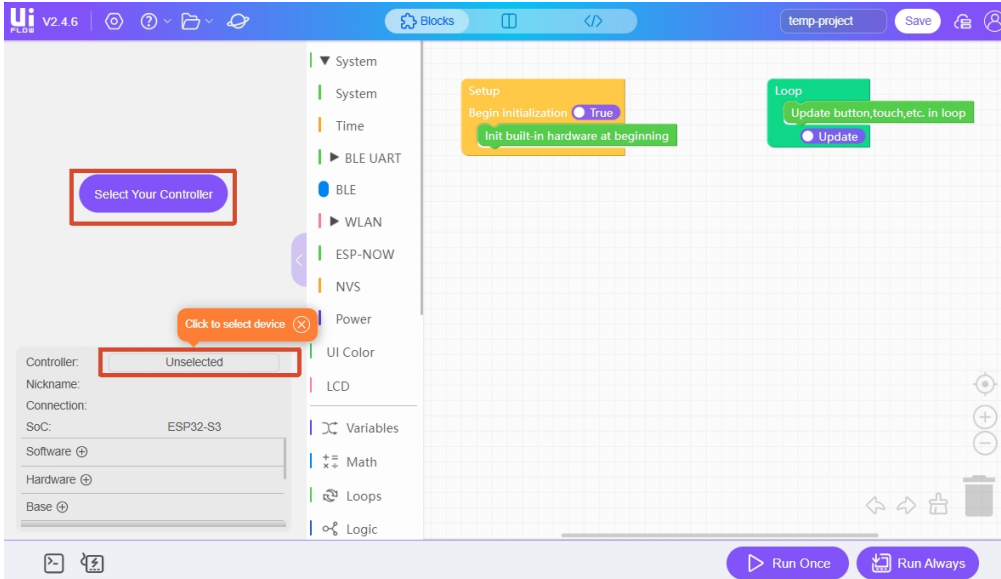
1. Before connecting, make sure the device is connected to the network. When the network connection is successful, the device interface displays **WiFi OK**. If the device is not connected to the network, the interface displays **WiFi NG**. Check whether the Wi-Fi name and password entered when flashing the firmware are correct, modify them through the **Configure** option in M5Burner, and flash again.



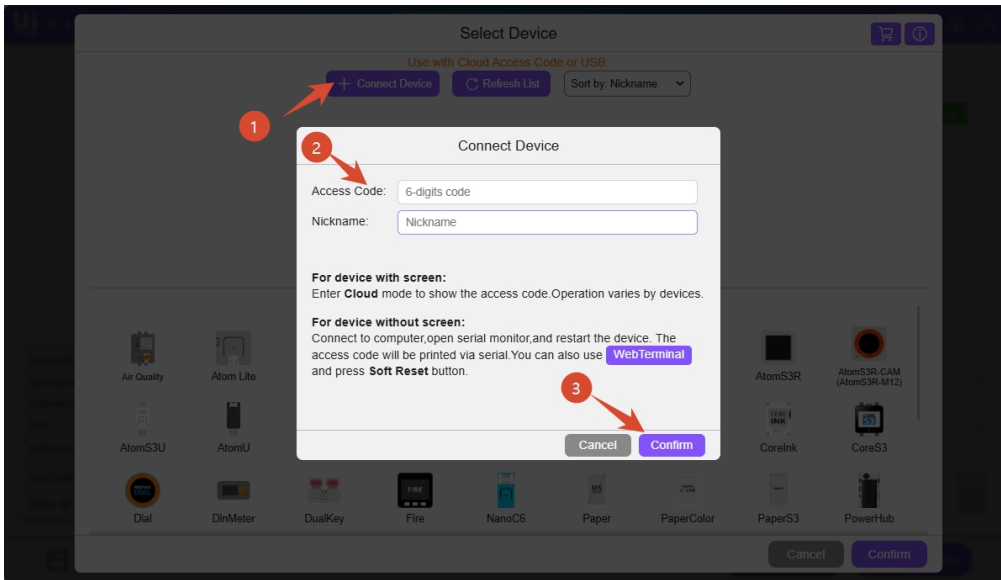
2. Check the currently generated valid **Access Code** on the device's UiFlow2 startup screen.



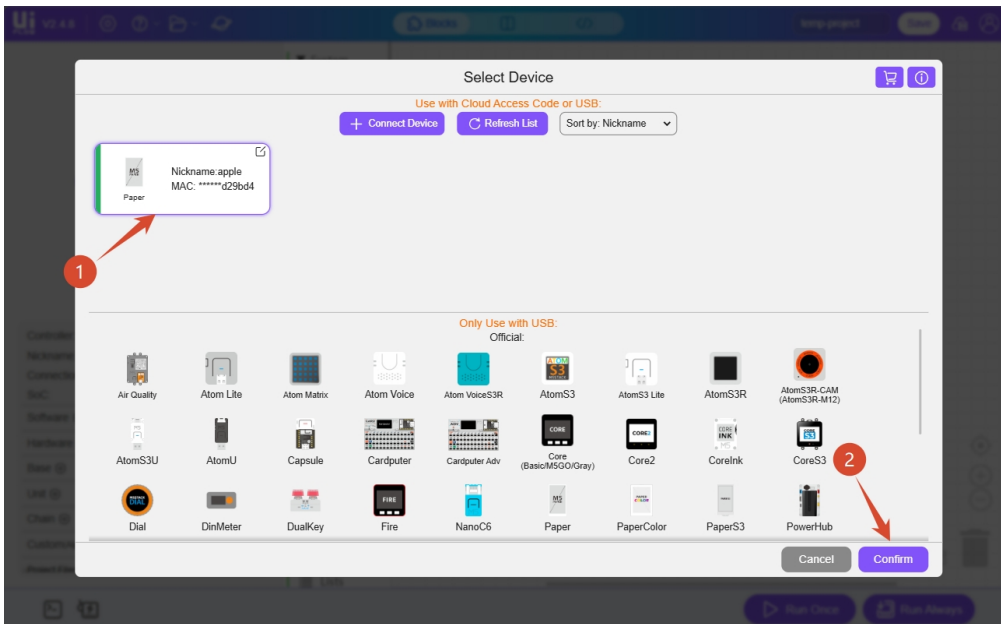
3. Visit uiflow2.m5stack.com to open the UiFlow2 Web IDE.
4. Click **Select Your Controller** (shown on first entry) or the **Controller** button on the page to enter the **Select Device** page.



5. Click **Connect Device**, enter the access code and a custom device name, then click **Confirm** to connect Paper to UiFlow2.

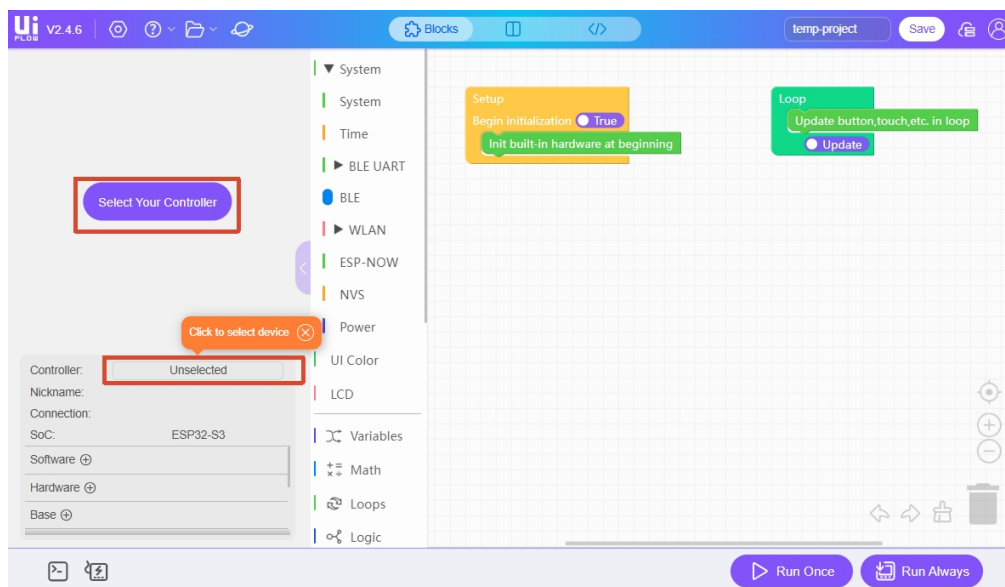


6. On the Select Device page, select the connected **Paper** device and click **Confirm** to enter the UiFlow2 programming interface.

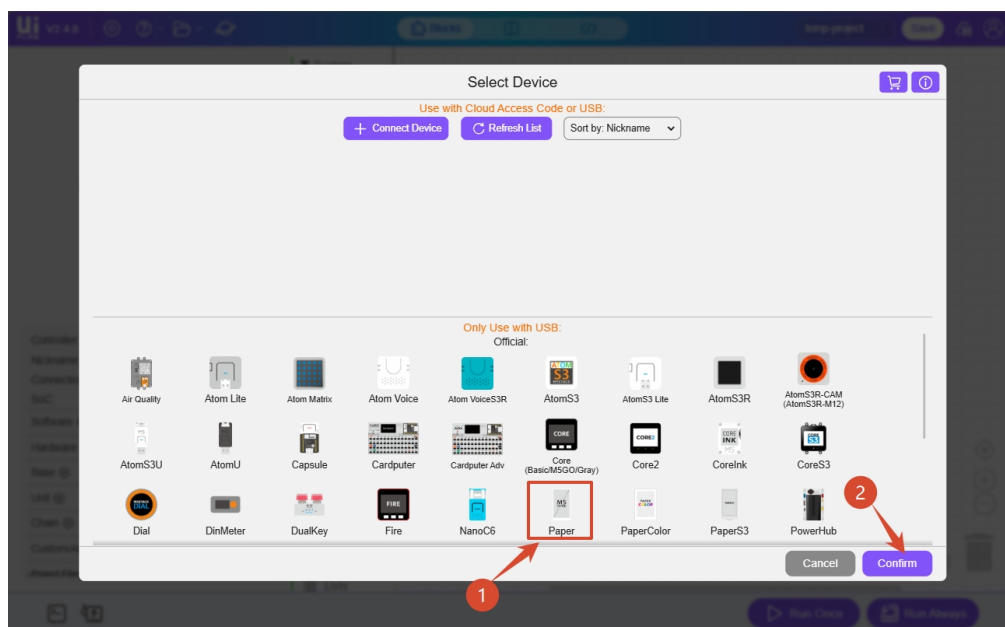


USB Wired Connection

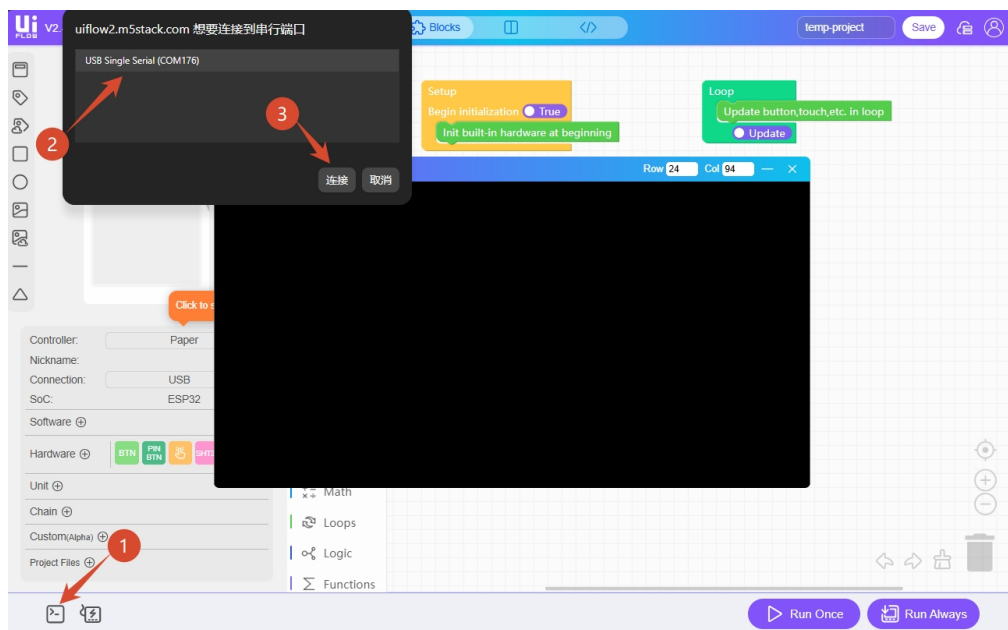
1. Visit uiflow2.m5stack.com to open the UiFlow2 Web IDE, and connect **Paper** to the computer with a USB cable.
2. Click **Select Your Controller** (shown on first entry) or the **Controller** button on the page to enter the **Select Device** page.



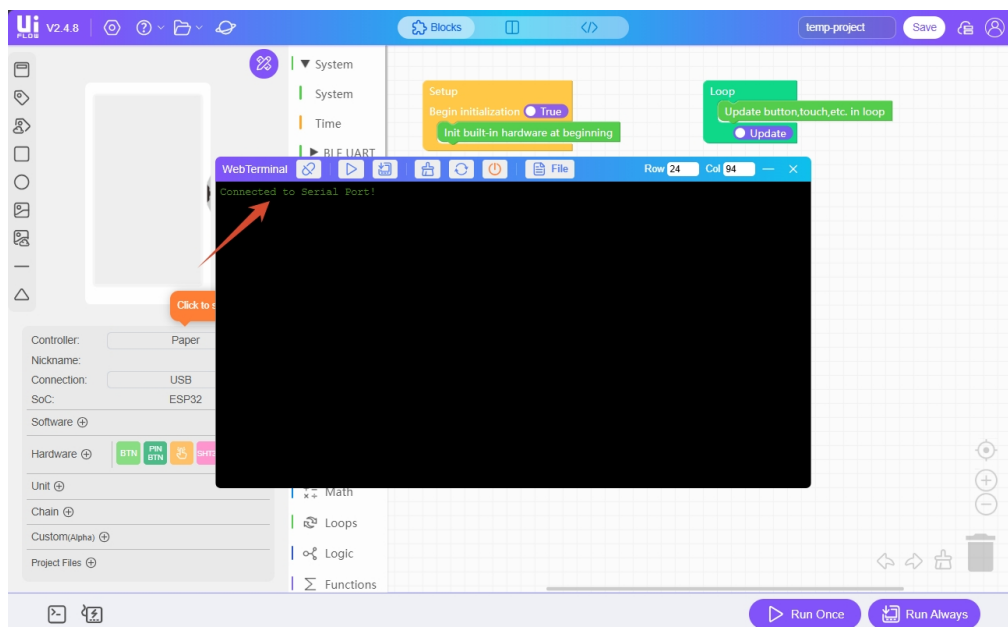
3. Select the **Paper** device in the device list, then click **Confirm**.



4. Click the **WebTerminal** button. In the pop-up window, select the serial port of **Paper**, then click **Connect**.

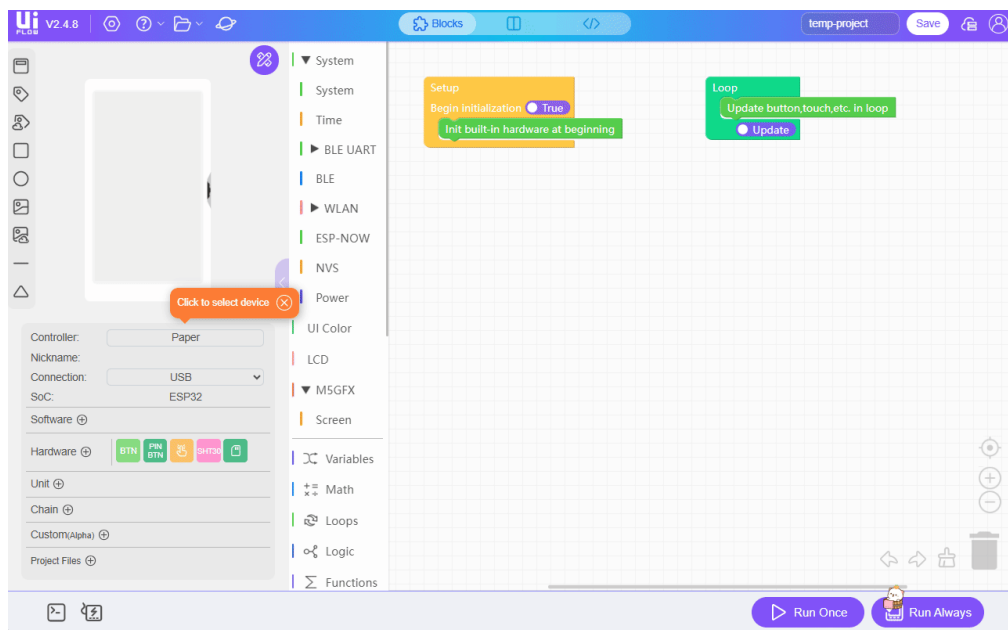


When the WebTerminal screen displays **Connected to Serial Port!**, the USB connection is successful.

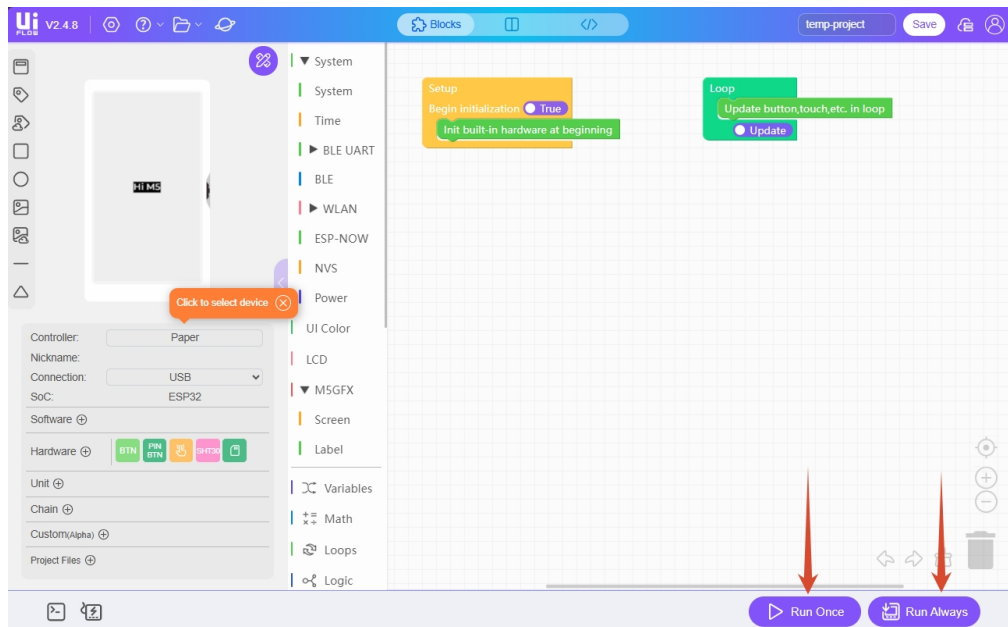


4. Program Run and Download

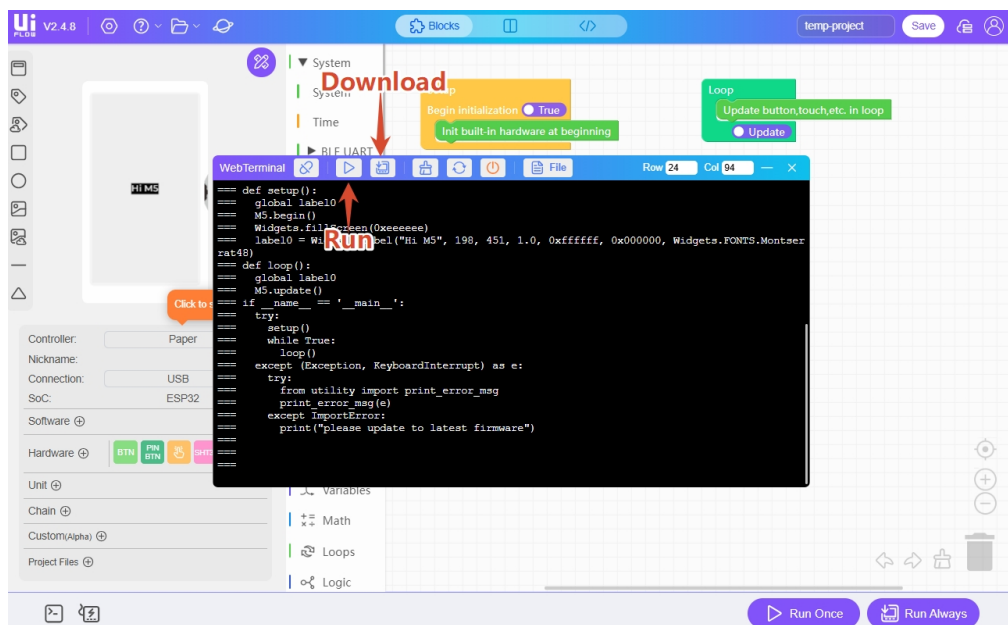
After the device is connected to UiFlow2, you can drag Blockly blocks to edit programs.



After editing the program, click the **Run Once** button in the lower-right corner to run the test program once, or click **Run Always** to download the program to the device.



You can also run once or download the program in the **WebTerminal** window.



5. Related Links

- [UiFlow2 Blockly Introduction](#)
- [UiFlow2 Firmware Source Code](#)

Built-in Peripheral Development

- [Screen](#)
- [Button](#)
- [SDCard](#)

Related Videos