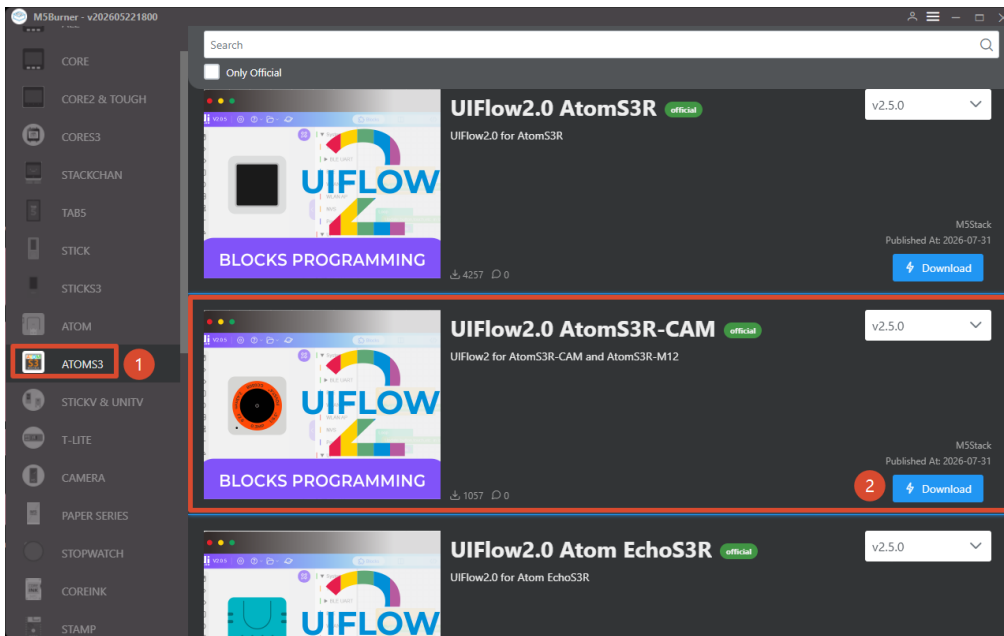


AtomS3R-CAM/AtomS3R-M12: Flash Firmware & Run Code

1. UiFlow2 Firmware Flashing

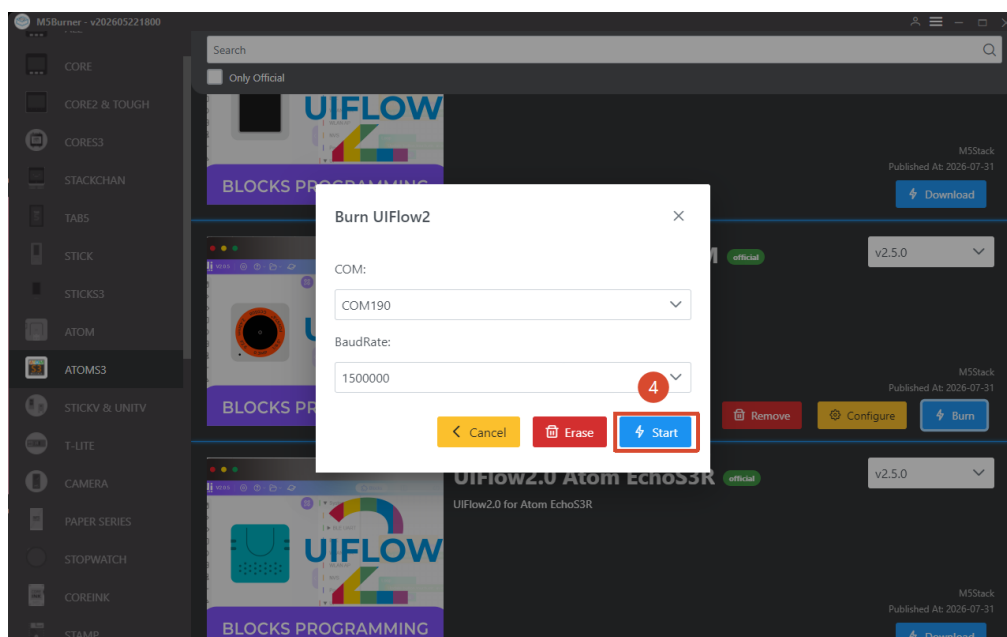
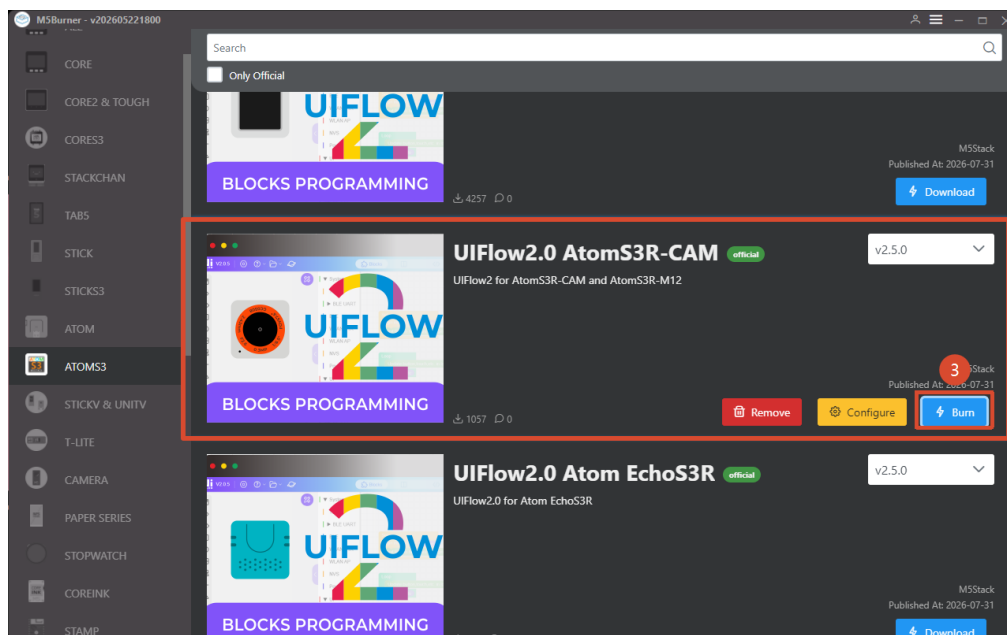
1. Refer to the [UiFlow2 Web IDE tutorial](#) to learn the basic UiFlow2 workflow and complete the installation of the M5Burner firmware flashing tool.
2. Download the firmware for `AtomS3R-CAM/AtomS3R-M12` in M5Burner, as shown below.



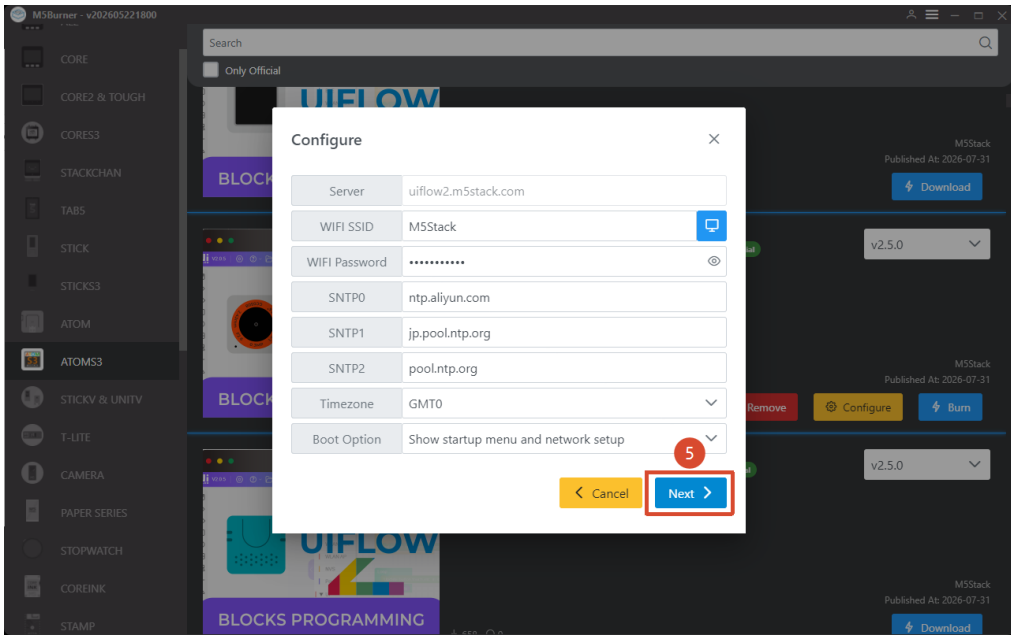
3. Press and hold the device's reset button for approximately 2 seconds. Release the button when the internal green LED turns on. The device is now in download mode and ready for flashing.



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



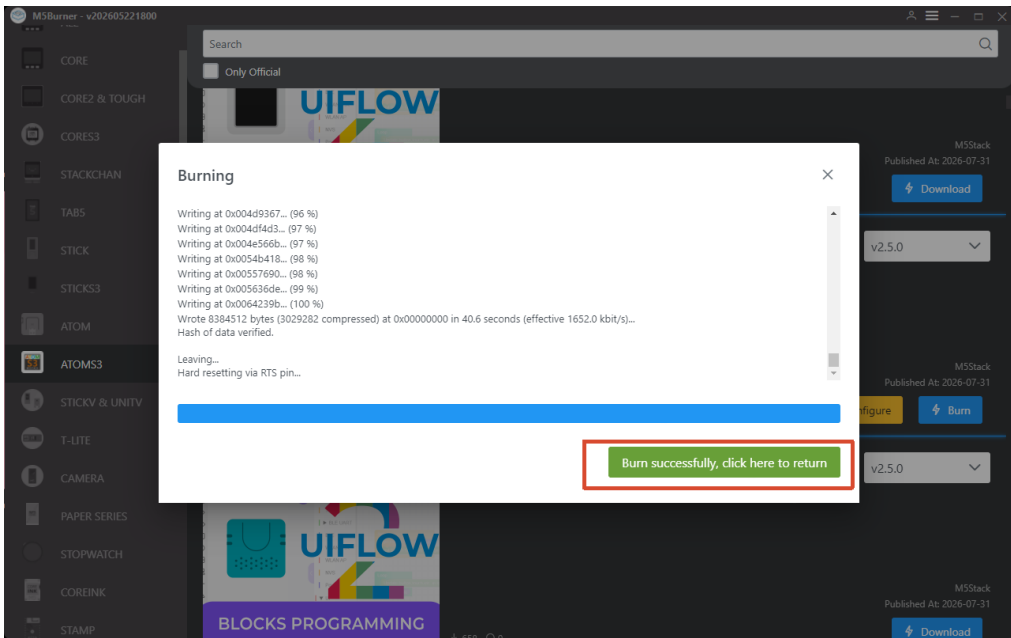
5. Fill in the Wi-Fi configuration required by the device, including Wi-Fi SSID, Wi-Fi Password, and any other device configuration items that need to be added or modified. Then click **Next** to start flashing.



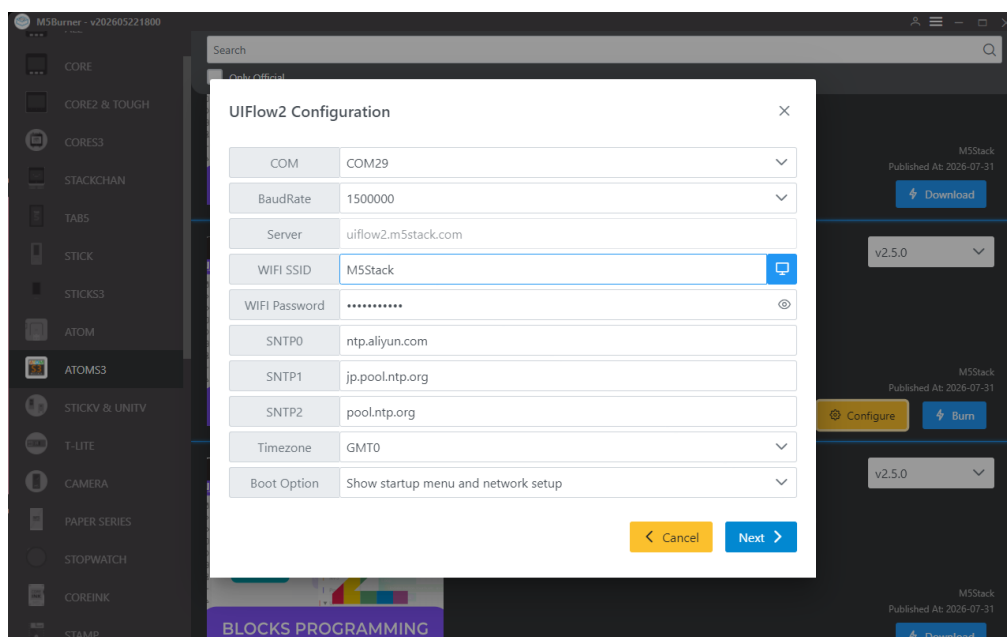
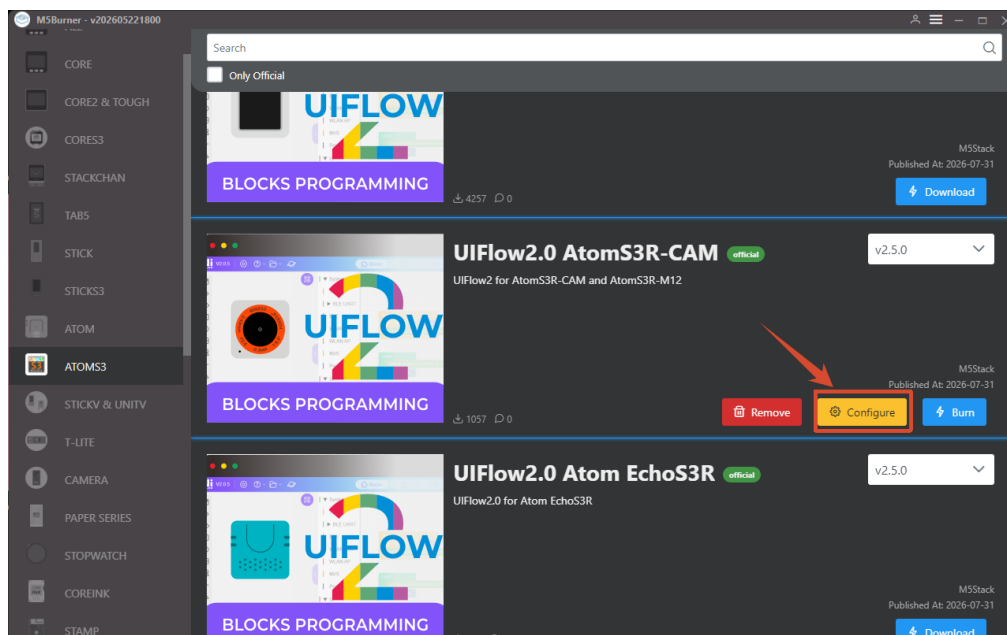
Configuration information:

- 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 for 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 startup mode after firmware flashing is complete
 - Run main.py directly: After flashing is complete, directly run the program in main.py without networking or showing the UiFlow2 startup screen
 - Show startup menu and network setup: The device connects to the network, and devices with screens will show the UiFlow2 startup screen
 - Only network setup: The device only performs network setup and does not show the UiFlow2 startup screen

When **Burn successfully, click here to return** appears, flashing is successful.



6. After firmware flashing is complete, if you need to modify the device configuration, keep the USB connection, restart the device, click the **Configure** option, and follow the on-screen instructions.

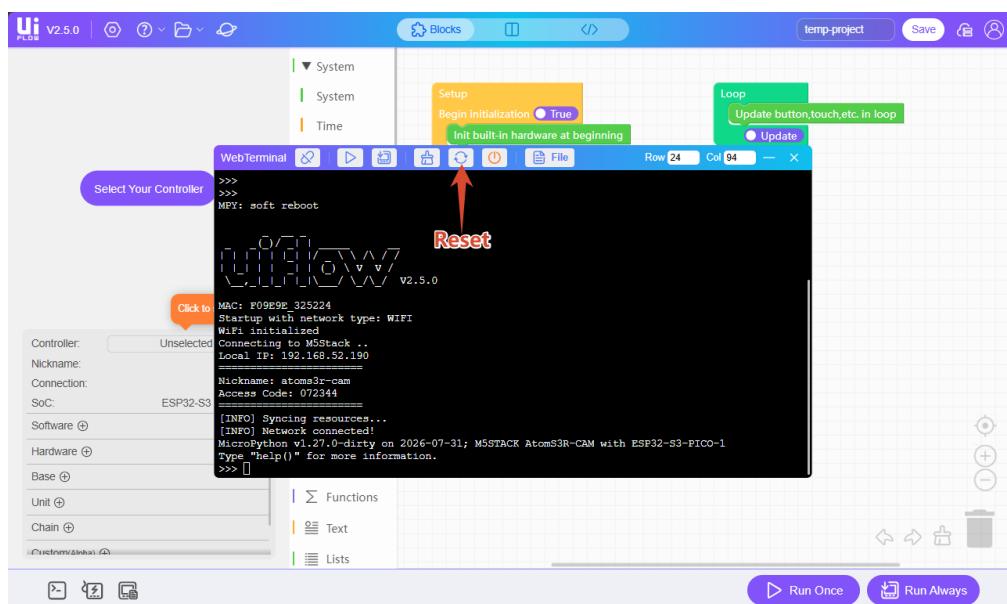
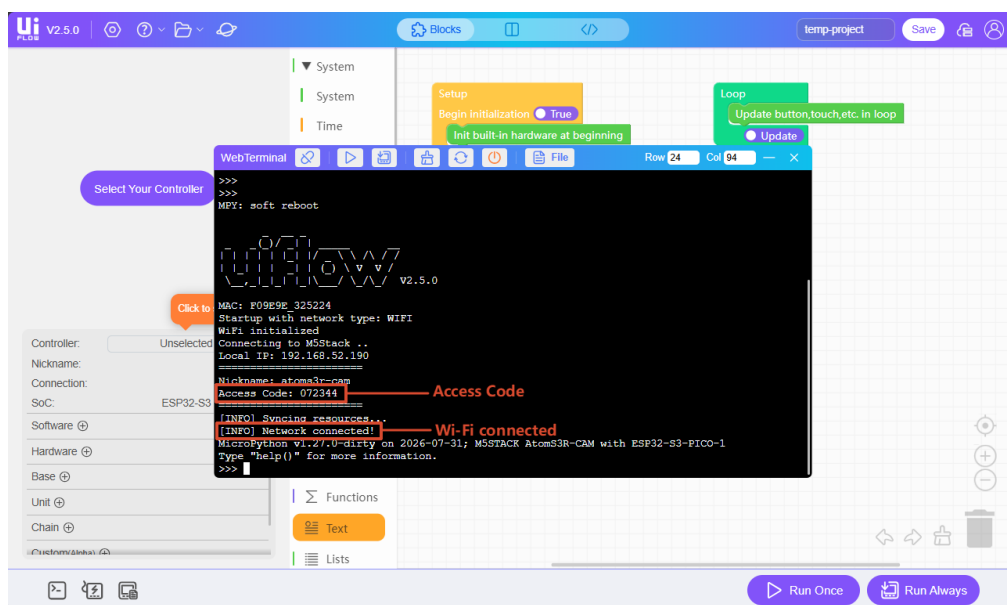
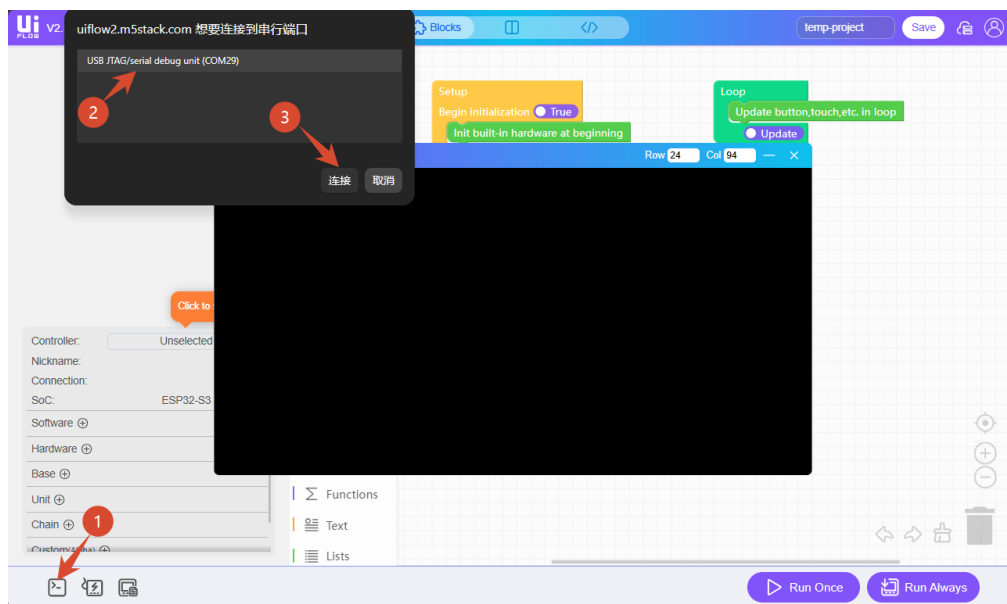


2. Device Connection

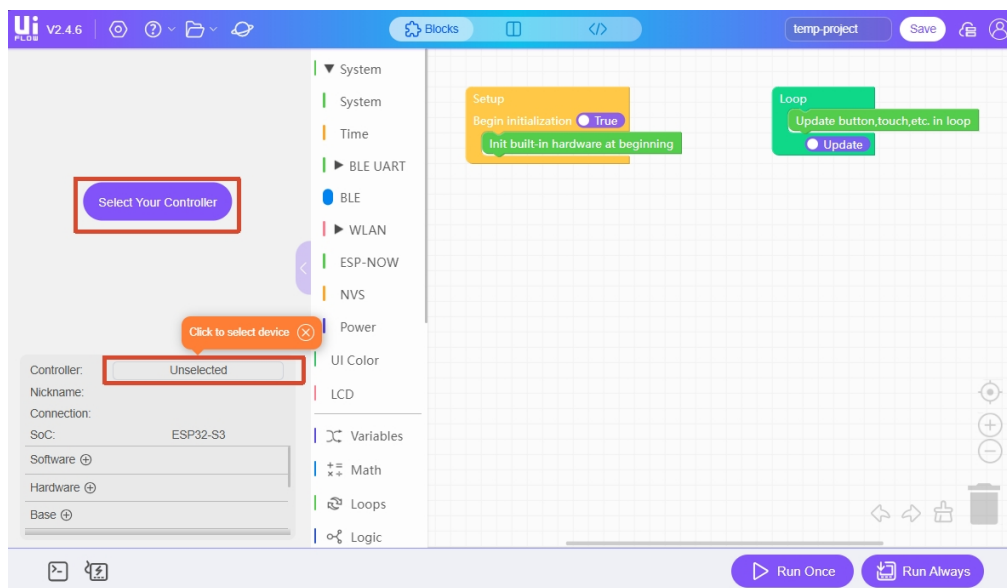
The device supports **Access Code** (via wireless network) or **USB** (wired connection to a computer) for connecting to UiFlow2 for program upload and debugging. See the following steps:

Access Code Wireless Connection

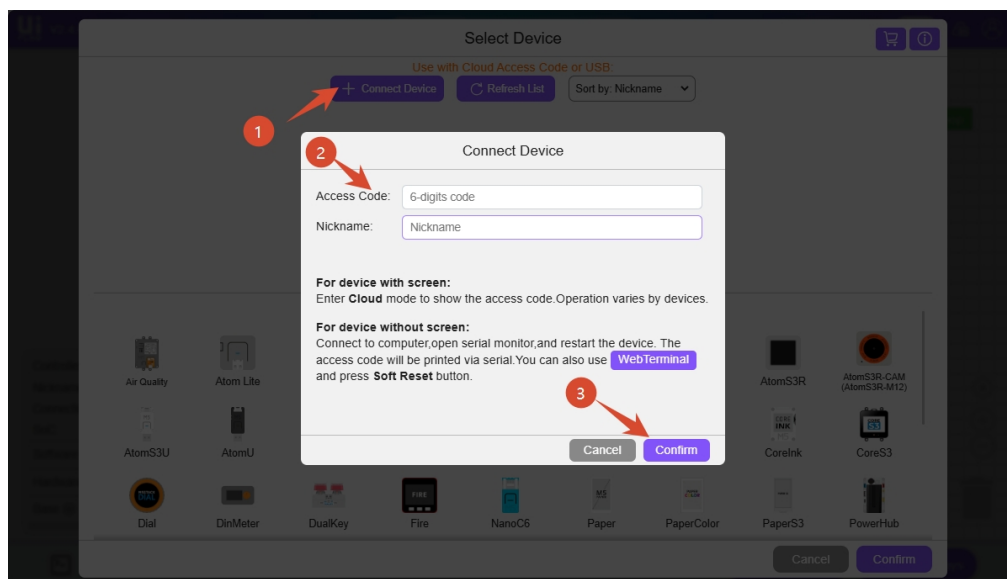
1. Visit uiflow2.m5stack.com to open the UiFlow2 Web IDE.
2. Make sure the device is connected to the network and obtain the **Access Code**: click **WebTerminal** in the lower-left corner of the interface, select the corresponding serial port in the dialog, then click **Connect** to open the serial monitor. You can view the current valid **Access Code** and Wi-Fi connection status. (Note: If the corresponding information is not displayed, click **Soft Reset** to perform a soft reboot.)



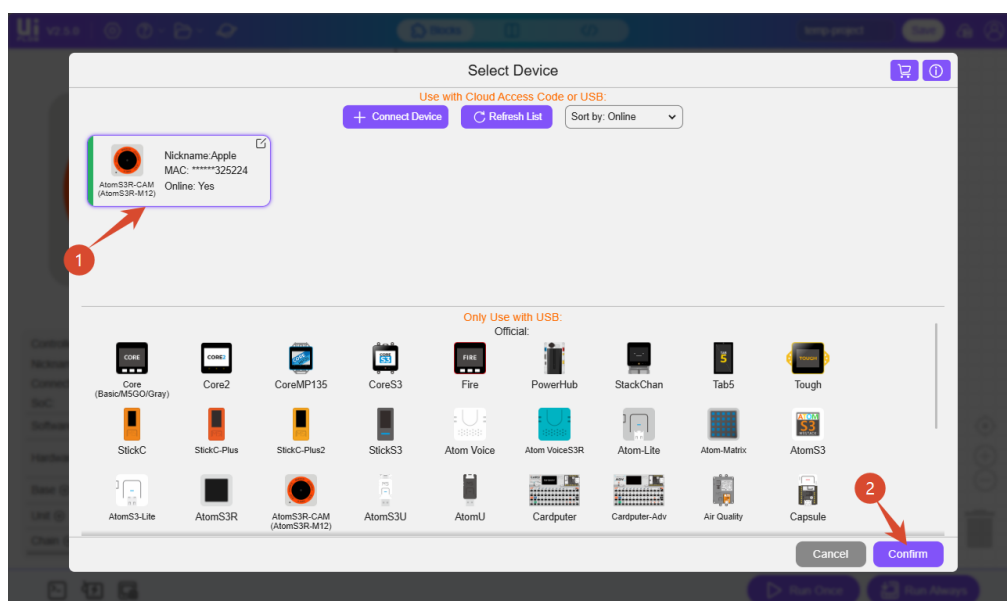
3. Click [Select Your Controller](#) (shown on first entry) or the [Controller](#) button to enter the [Select Device](#) page.



- Click **Connect Device**, enter the access code and a custom device name, then click **Confirm** to connect **AtomS3R-CAM** or **AtomS3R-M12** to UiFlow2.

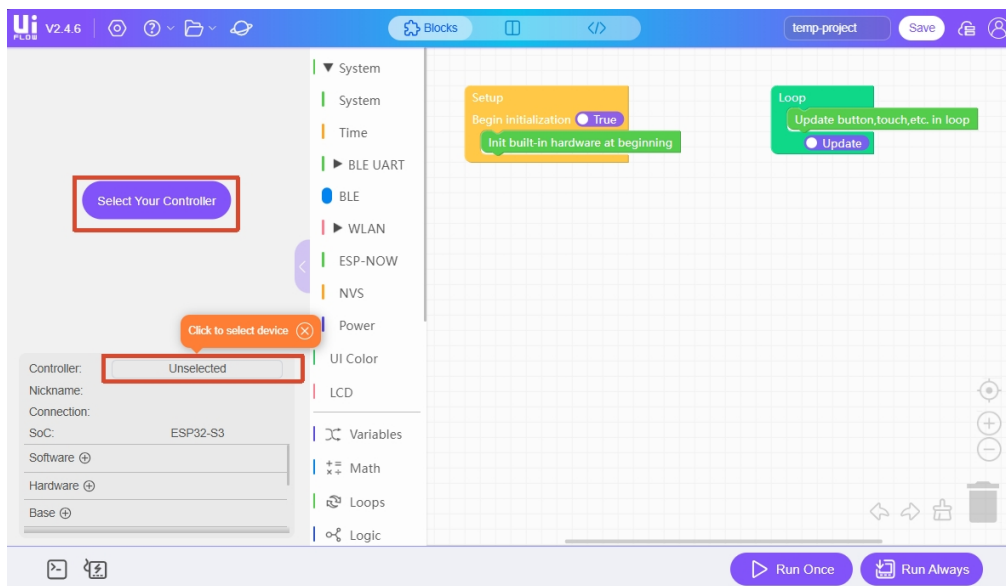


- On the **Select Device** page, select the connected device and click **Confirm** to enter the UiFlow2 programming interface.

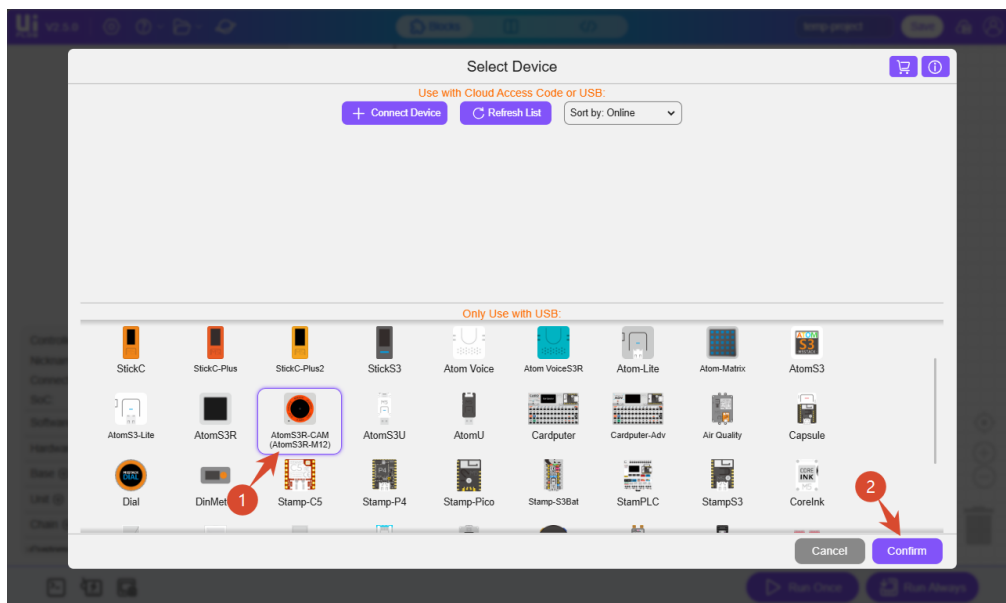


USB Wired Connection

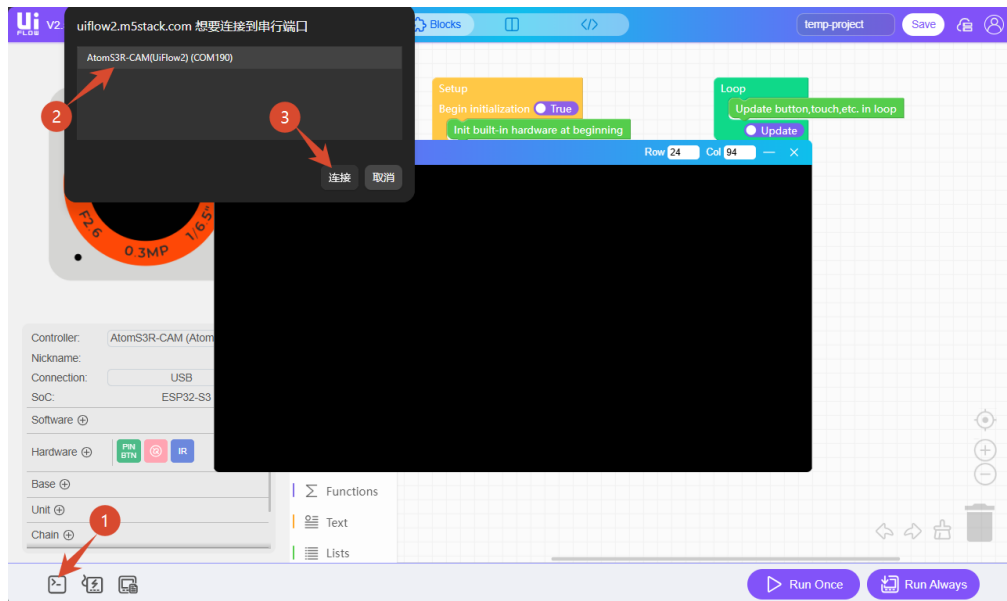
1. Visit uiflow2.m5stack.com to open the UiFlow2 Web IDE, and connect **AtomS3R-CAM** or **AtomS3R-M12** to the computer with a USB cable.
2. Click [Select Your Controller](#) (shown on first entry) or the [Controller](#) button to enter the [Select Device](#) page.



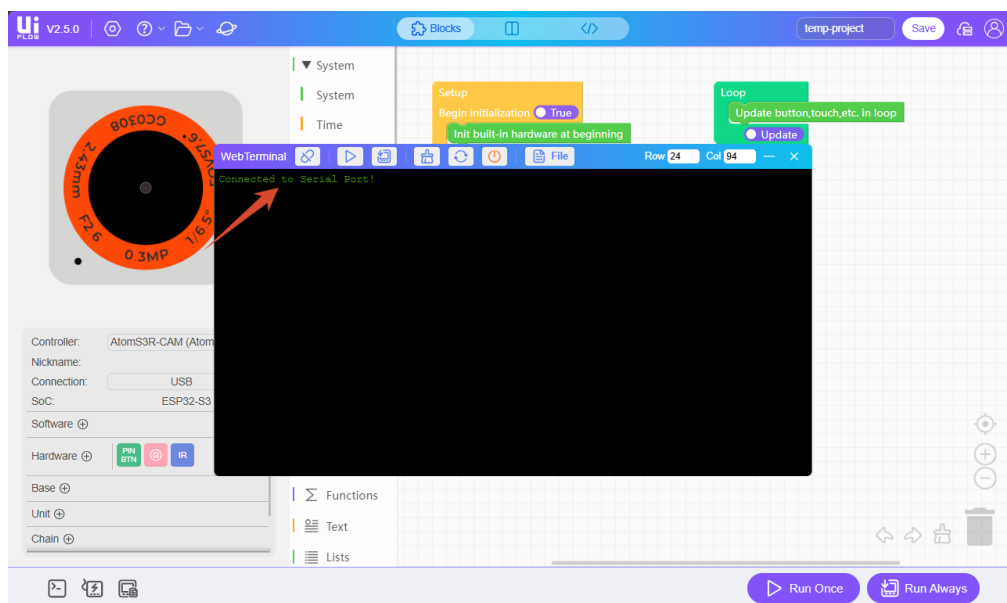
3. Select **AtomS3R-CAM (AtomS3R-M12)** from the device list, then click [Confirm](#).



4. Click the [WebTerminal](#) button, select the corresponding serial port in the dialog, then click [Connect](#).

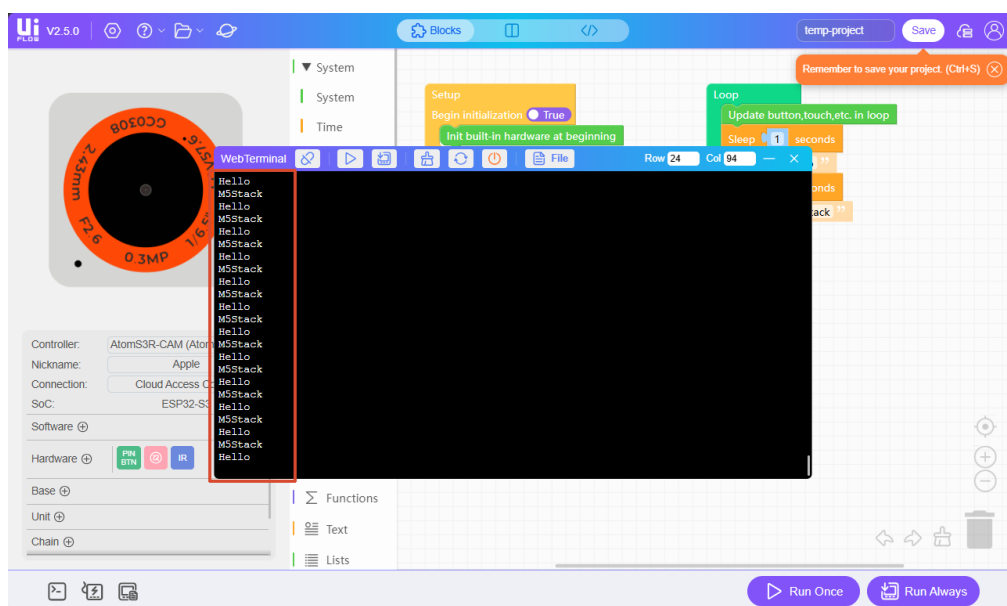
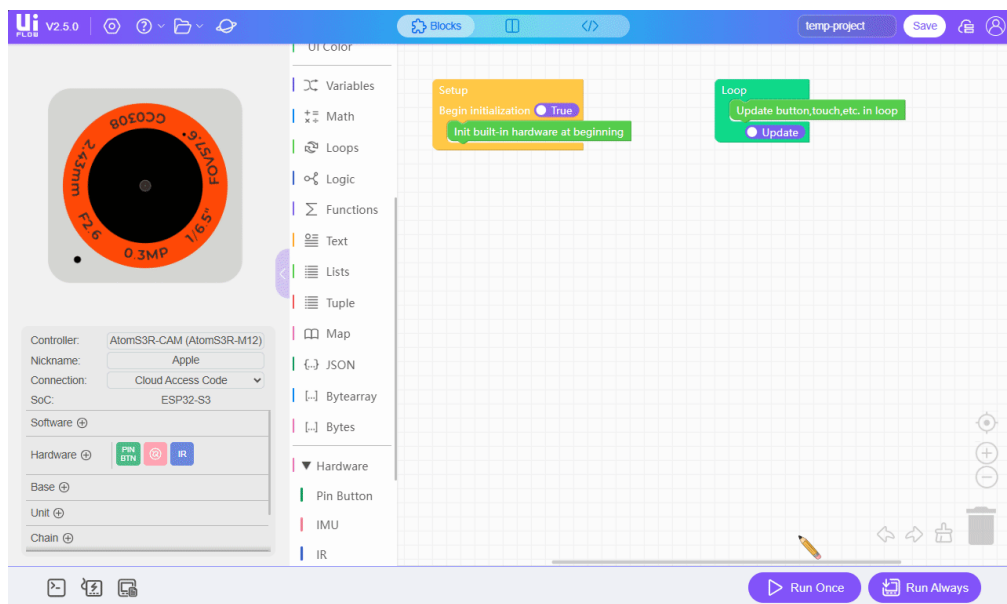


When the WebTerminal screen displays `Connected to Serial Port!`, the USB connection is successful.

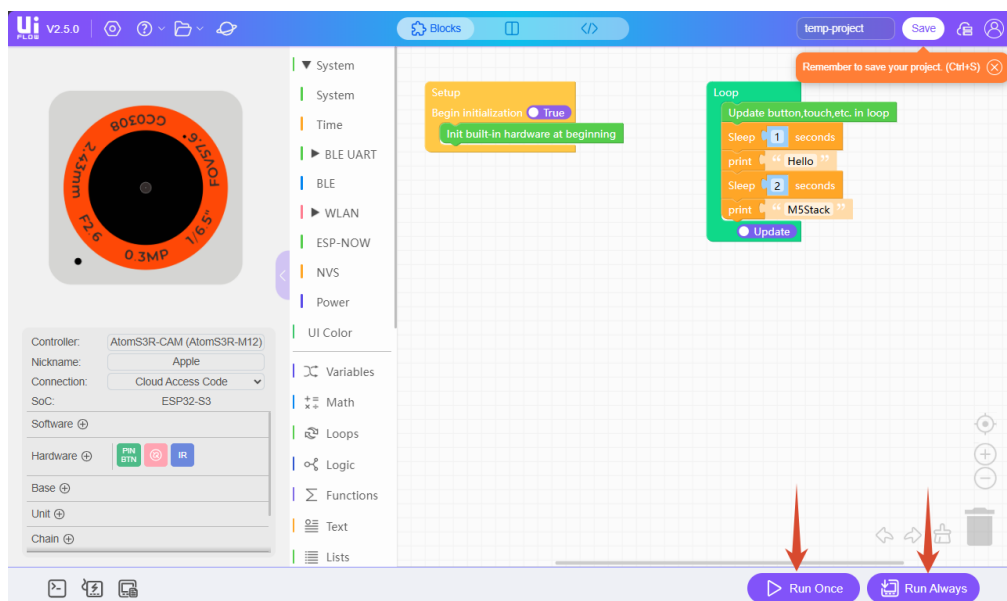


3. Run and Download Programs

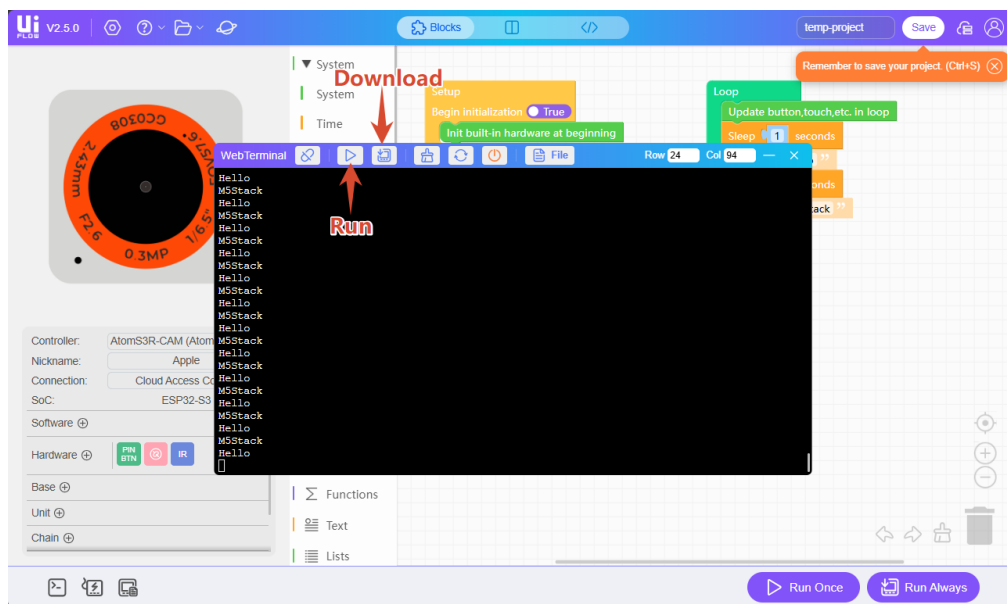
After the device is connected to UiFlow2, you can drag Blockly blocks to edit programs.



After editing the program, click the **Run Once** button in the lower-right corner of the interface to run the program once for testing. Click the **Run Always** button to download the program to the device.



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



4. Related Links

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