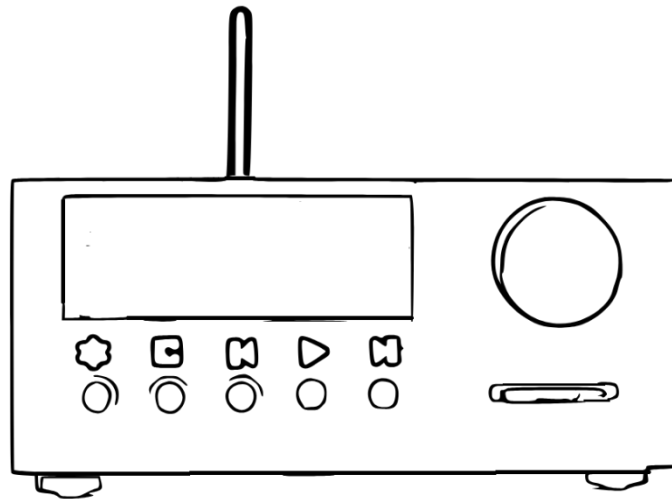


# ESP32\_MP

## Digital Music Player and Streamer

Install Firmware and testing

Version ENG july 2025  
firmware version 20250724



### **CD Quality Digital Music Player and Streamer**

Streaming from Internet Radio

Streaming from UPnP media server

Streamin from Bluetooth

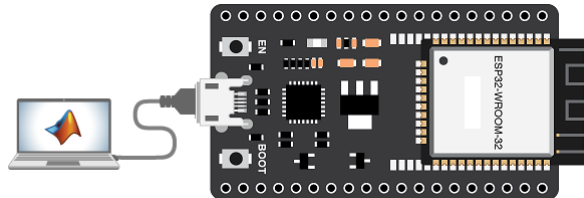
Play from SD Card

# Content

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# 1. Testing

Once the hardware has been completed by assembling all the components as described in the relevant manual, it's possible to install the firmware that enables all the player's features. In this case you can skip the following chapters and read the chapter relating to the firmware installation. If you want it's possible testing each individual component. To perform the tests described below you need to have the necessary skills in using the Arduino IDE. Testing requires the Arduino IDE on PC, connected via serial to the ESP32 MCU board.



The online repository at [https://github.com/mircose/ESP32\\_MP](https://github.com/mircose/ESP32_MP) provides all the documentation needed to build and test the player. Among the files are some sketches that can be used to test a specific hardware component of the project. These sketches must be opened in the Arduino IDE and uploaded to the ESP32 module via the serial connection. For some sketches it will be necessary to install the appropriate library. All these sketches use the Arduino Serial Monitor to provide a performance report. The expected reports are available in each sketch's folder.

## 2. Install Firmware

Given the complexity of the project and the difficulty of managing many libraries, some of which have been modified, the precompiled .bin file is provided, which is much easier to install. Download the latest firmware version in .bin format from the repository.

Download Espressif Flash Download Tools from

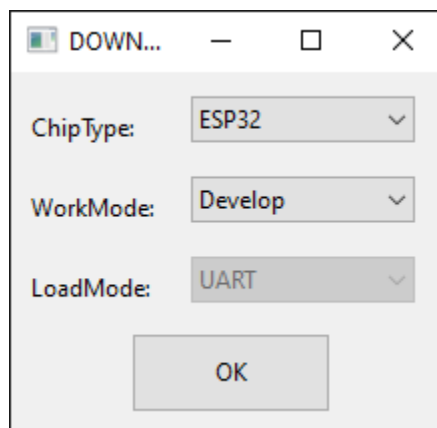
<https://www.espressif.com/en/support/download/other-tools>

Connect the player to the PC with the serial cable and run Flash Download tools.

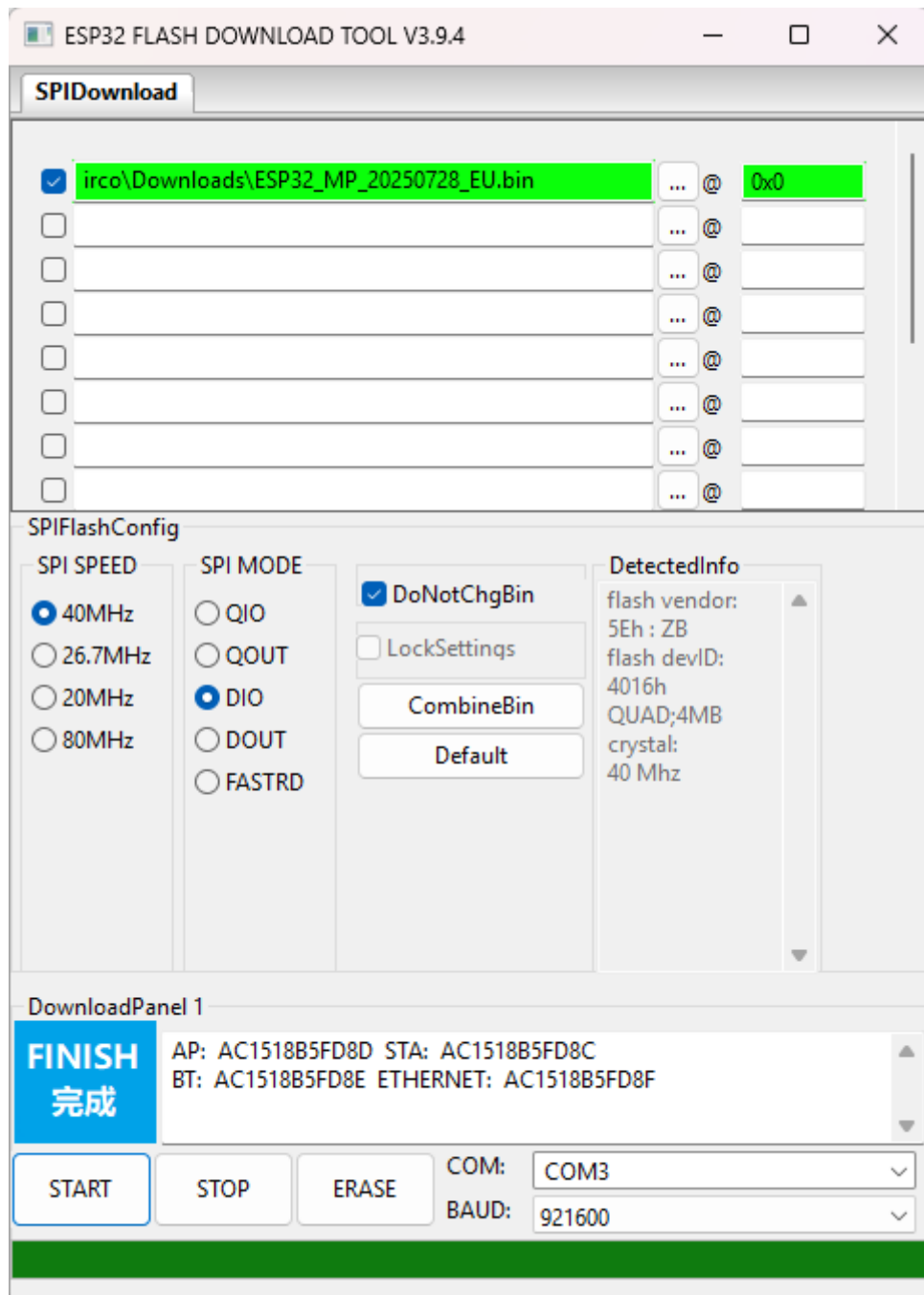
Set ESP32 Chip Type

WorkMode Develop

LoadMode UART



Open ESP32\_MP\_xxxxxxx.bin compiled firmware and set with image below. Make sure to check the file selection and enter the value 0x0 as the address, then click START.



wait for the operation to complete.

### 3. First start

After completing the firmware upload, unplug the serial cable. If the player was powered, press the reset button on the ESP32 board to start running the program. If the player was not powered, power it on.

At first start-up, the default settings are present and the first prompt on the screen tells you to select the listening source.

If you select SD Player or Bluetooth Streamer don't need to configure WiFi network.



If you select Internet Radio or UPnP you need to configure WiFi network.



For details on how to set up your WiFi network and player features please see the file  
ESP32\_MP User Manual Software ENG.pdf