Installation Instructions

Only works with ESP32S3 Lilygo t-displayS3 Touch you can watch the videos:

https://youtu.be/HgioXrjpPSk?feature=shared

https://youtu.be/gyk2eq8ZymM?feature=shared

https://www.youtube.com/watch?v=cFctgusRfhY

The Espressif Flash Download Tools can be downloaded from here:

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

Upload using Espressif Flash Tool:
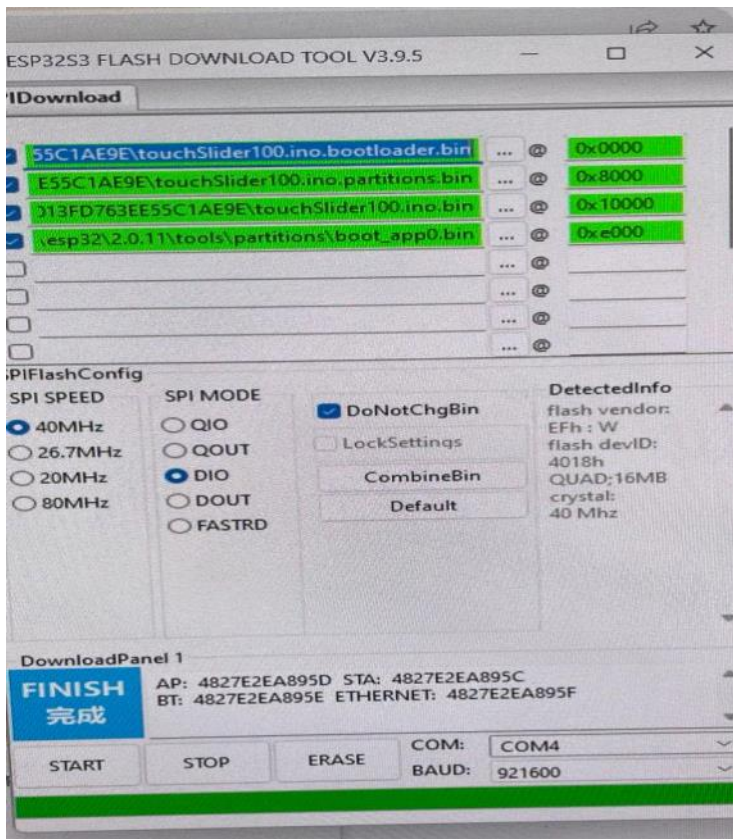
0x0 touchSlider100.ino.bootloader.bin

0x8000 touchSlider100.ino.partitions.bin

0x10000 touchSlider100.ino.bin

0xe000 boot_app0.bin

Here is a screenshot of the flash tool:

Make sure to use the right com port (located at the right bottom side)

One time connecting process:

1. After successful upload press the reset button on the ESP32 or disconnect the USB cable and reconnect it.

2. Wait for around 3 min until network scanning is completed.

3. Open the wifi settings in your phone or computer and search for AH_Radio network.

4. Connect to that network using your internet password. This will connect the radio permanently to your home network.

5. Press the reset button of the ESP32 controller and whit for 5 minutes for the Spiff storage formatting to be completed.

6. Press the reset button of the. Now you should be able to see the IP address that was assigned to your radio by the router

7. Open your computer web browser and type that IP address.

8. Upload a single station or list of stations using the following format

Station Name 1, Station Address 1

Station Name 2, Station Address 2

Radio Ibiza, http://ibiza-smooth-jazz.vip-radios.fm:8033/stream-128kmp3-IbizaSmooth

Roma Radio, http://nr9.newradio.it:9371/stream .

You can find and copy station URL's here: https://streamurl.link/ .

Important Note: The webserver is only working after boot, it will stop working once you touch the screen. To reactivate it you will need to reboot the radio by pressing the reset button located on the side of the screen.
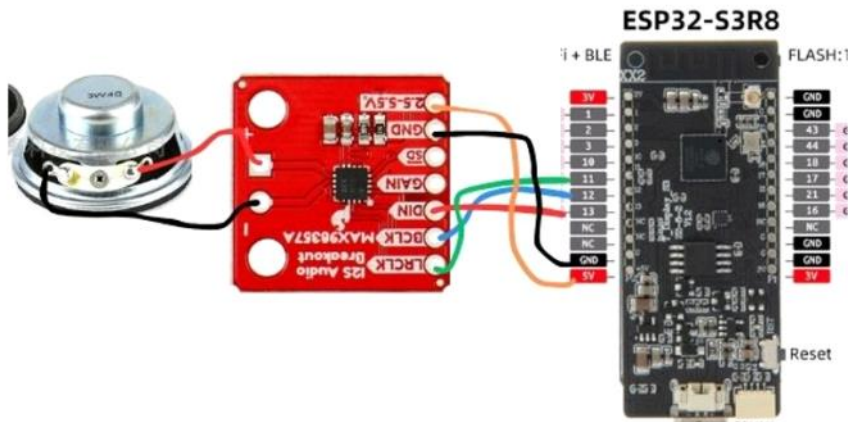
Note:

1. The boot_app0.bin file is included with the Lilygo flash tool in the bin directory.

2. An I2S DAC is required for this project, Amplifier is optional.

3. For some stations that don't play and their URL starts with https:// try to change it to http:// and check if it is working

Following is the connection diagram for using the Max98357a chip (if you use pin header you don't need to connect wires as the pins are arranged correctly).

Connect the I2S DAC to the following pins as shown in the picture:

BCLK to pin 12, LRC to pin 11, DOUT to pin 13, VCC to 5V, GND to GND

Refer to the below photo: it is possible to solder the DAC directly to the ESP32 in the following way (the pins are already aligned) After soldering the DAC to the pins you only need to connect a speaker to the + and - signs (speaker pins) on the DAC module and enjoy the music.

I2S Audio Breakout
MAX98357A
LRCLK
BCLK
DIN
GAIN
SD
GND
2.5-5.5V

ESP32-S3R8

WiFi + BLE

FLASH:16

3V	
GPIO01	1
GPIO02	2
GPIO03	3
GPIO10	10
GPIO11	11
GPIO12	12
GPIO13	13
NC	
NC	
GND	
5V	

GND	
GND	
43	GPIO
44	GPIO
18	GPIO
17	GPIO
21	GPIO
16	GPIO
NC	
GND	
GND	
3V	

Reset

LCD_BAT_VOLT: 04 Type-C

G 3V 43 44
Support STEMMA QT / Qwiic
JST-SH 1.0mm 4-PIN

New Section 4 Page 4