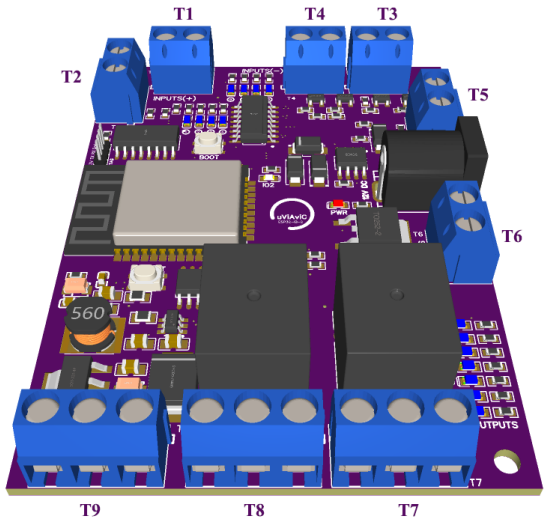


Review.

Develop your projects in our hardware board!

12V Isolated board base on ESP32 it's a programable board with eight (8) digital inputs, two (2) analogic inputs and seven (7) outputs.

Inputs.

Digital inputs (four (4) positive & four (4) negative) are through optocoupler for ESP32 protection, all of them are negative inputs on ESP32, **you must declare in the code all these inputs as PULLUP.**

The two analogic inputs are protected with Zener diode, OP-AMP and voltage divider was calculated for 12V input.

Connector	Label	ESP32
T1 Digital (+)	IN+(1)	IO19
	IN+(2)	IO21
T2 Digital (+)	IN+(3)	IO22
	IN+(4)	IO23
T3 Digital (-)	IN-(1)	IO18
	IN-(2)	IO5
T4 Digital (-)	IN-(3)	IO17
	IN-(4)	IO16
T5 Analogic	IN(A)1	IO32
	IN(A)2	IO35

Also include:

- one (1) switch for reset

- one (1) switch for boot (IO0 to ground) for programming purposes.

- 1.27 mm pitch four (4) pin header for programming. (3V3, TX, RX, GND)

- each input has a blue led indicator.

Outputs.

Outputs are seven (7) through ic driver for ptotected ESP32.

- Two (2) positive outputs through mosfet (5A support).
- Two (2) +/- outputs through relays (10A support)
- Three (3) negative outputs directly from ic driver (500 mA).

Connector	Label	ESP32
T6 Mosfet outputs (5A)	OUT+1	IO27
	OUT+2	IO26
T7 Relay output (10A)	NO: Normally Open NC: Normally Closed COM: Common	IO13
T8 Relay output (10A)	NO: Normally Open NC: Normally Closed COM: Common	IO15
T9 Negative outputs (500 mA)	OUT-1	IO33
	OUT-2	IO25
	OUT-3	IO14

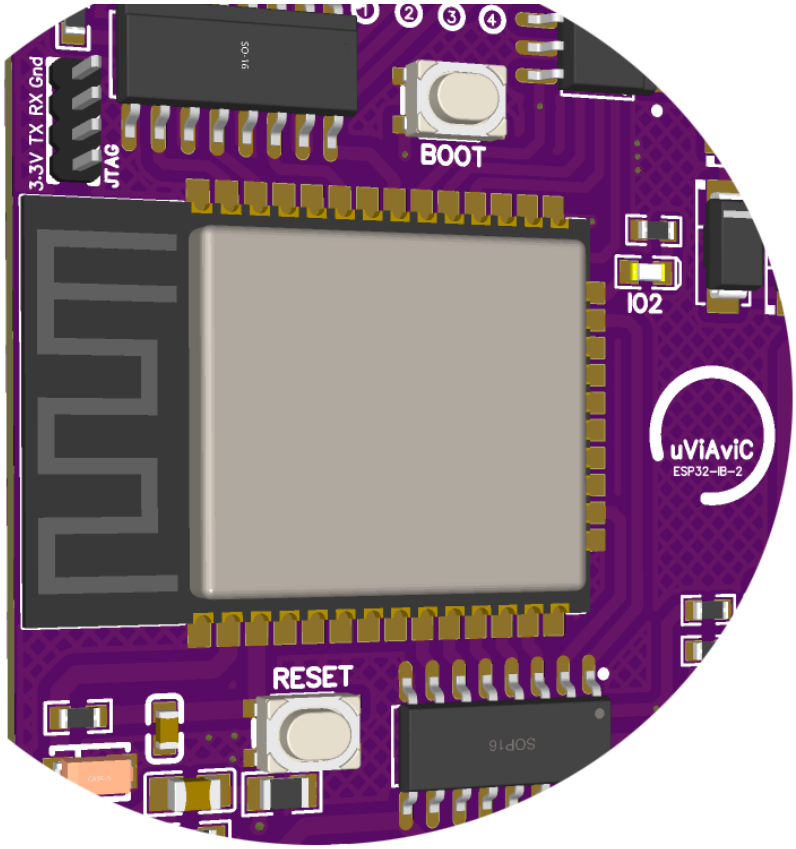
Also include:

-one (1) built-in led (green) connected to ESP32 - IO2.

-one (1) power led indicator (red).

-each output has a blue led indicator.

Programming ESP32.



JTAG connector is design for programming the ESP32 through any USB to TTL programmer. (PL2303, CH340, CP2102)

To put the ESP32 in BOOT mode its necessary press and hold the BOOT button and then press and release RESET button, now you can release the BOOT button.

You can find information and code example for testing the board at:

https://github.com/uViAviC/ESP32-IsolatedBoard-12V-AD