

ESP32: J3 jumper should be closed while programming

J2 jumper is to connect ttl programmer

Connector H1: is to provide VCC and Gnd

GPIO 0-3 is used for output

GPIO 4-7 is used for Input

Reset button is provided

8 GPIO are used

Connector J5 is used to take additional 2 GPIO pins

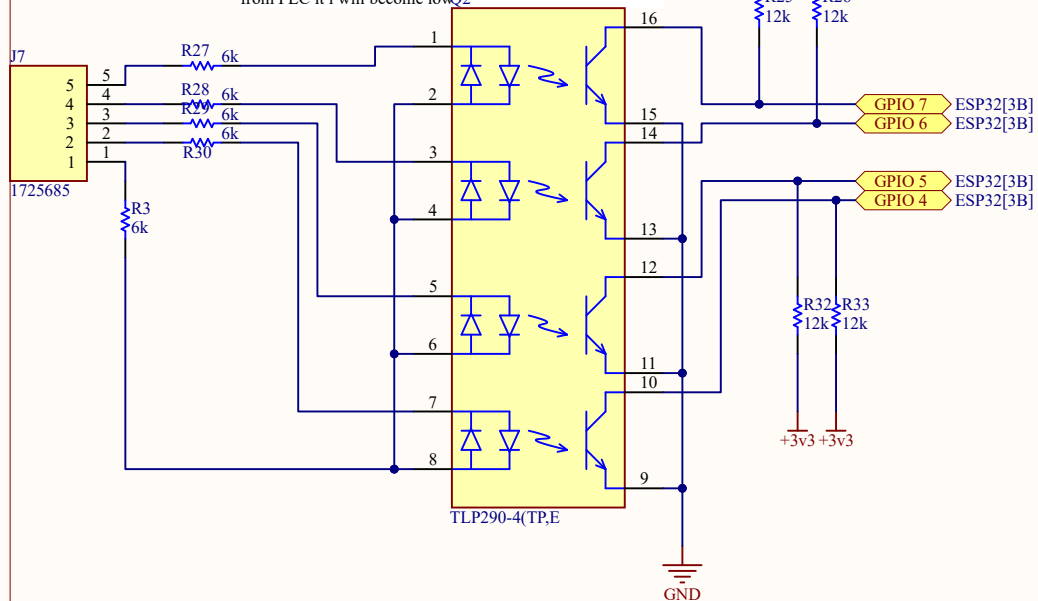
GPIO 0: IO21
GPIO 1: IO22
GPIO 2: IO23
GPIO 3: IO25

GPIO 4: IO04
GPIO 5: IO16
GPIO 6: IO17
GPIO 7: IO18

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Input from PLC

Two connectors are given to ensure capability of accepting input from both sourcing type and sinking type PLC..In general GPIO pins are Pulled to high, So when input comes from PLC it i will become low



Note:
Input from PLC:

Input from PLC and ESP is isolated with , TLP2904 optocoupler array, which has four isolated channels. The optocoupler outputs are pulled high.

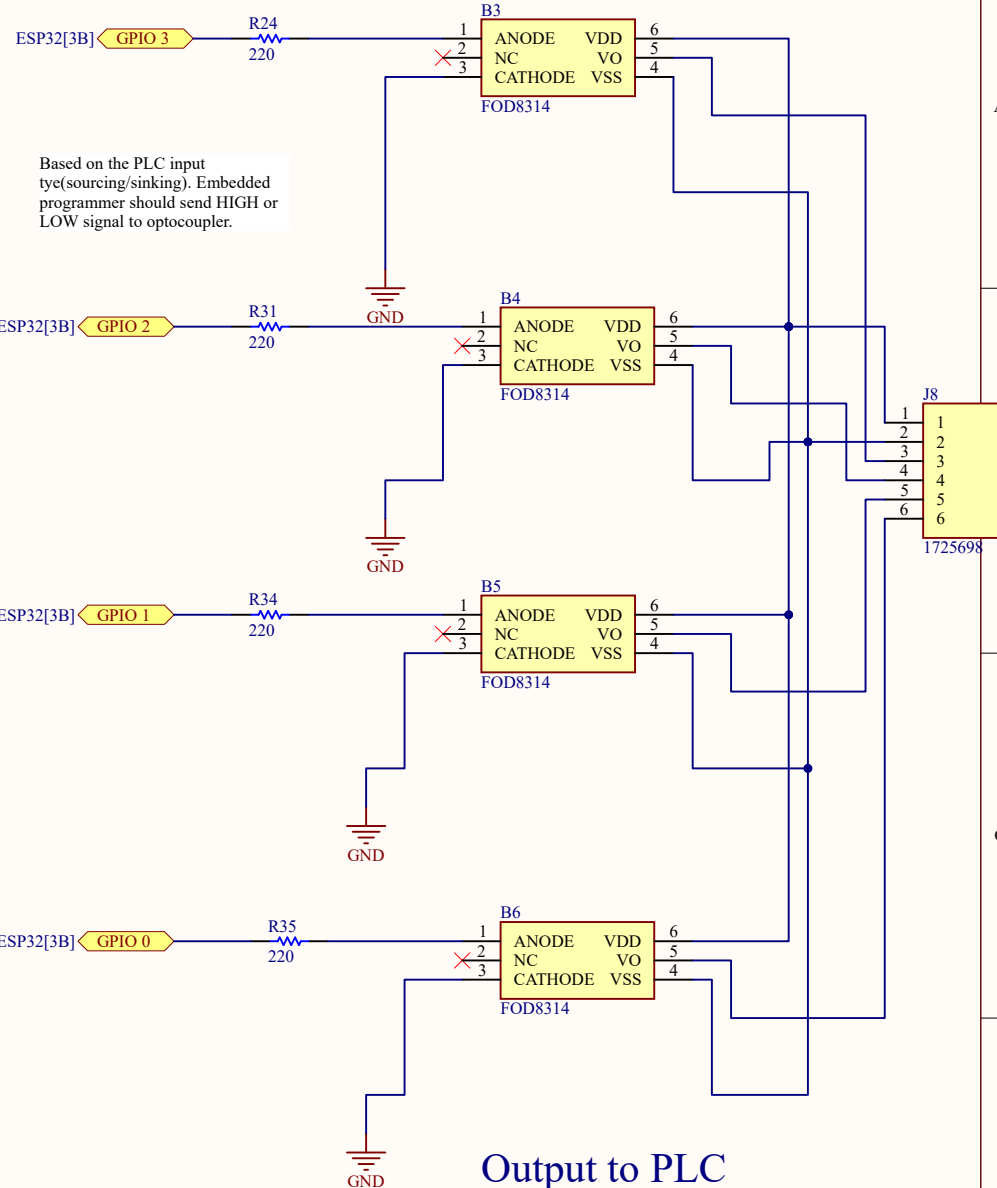
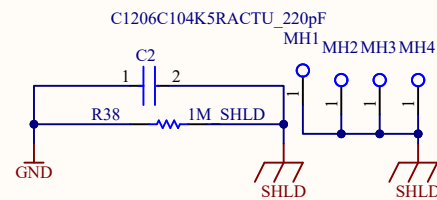
Optocoupler can able to conduct bidirectionally, So from PLC Common pin can be connected to J7 connectors' 1st pin(Source/Sink) and 2,3,4,5 can be used for both sourcing and sinking input.

Output to PLC:

Output 1:

The FOD8314 series optocoupler is used, provides both sourcing and sinking outputs, allowing it to actively pull both high and low states.

J8 connector: Pin 1 and 2 are VCC amd GND from PLC. 3,4,5,6 are signal pins from optocoupler.



Output to PLC

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