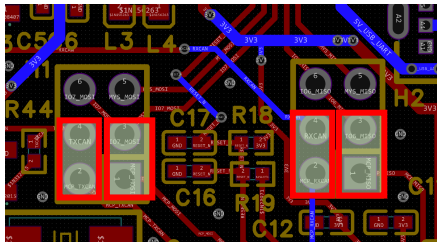
# ESP32 C3 Pinout

| ESP GPIO | Description | Mapping to Spring Connector | Mapping to Pin Header |
|---|---|---|---|
| GPIO0 | Alive LED (active high) | Pin 6 | |
| GPIO1 | MCP2515 RESET | | Pin 7 |
| GPIO2 | MCP2515 SPI CS | | |
| GPIO3 | MCP2515 INT_N (low active) | | Pin 1 |
| GPIO4 | I2C SCL (pullup) | Pin 3 | Pin 9 |
| GPIO5 | I2C SDA (pullup) | Pin 4 | Pin 10 |
| GPIO6 | Jumper 1: MCP2515 SPI MISO<br>Jumper 2: CAN RX<br>Jumper 4: MYS_MISO | | Jumper 4: Pin 3 |
| GPIO7 | Jumper 1: MCP2515 SPI MOSI<br>Jumper 2: CAN TX<br>Jumper 3: TX LED (active high)<br>Jumper 4: MYS_MOSI | | Jumper 4: Pin 6 |
| GPIO8 | Relay (active high) | Pin 5 | Pin 2 |
| GPIO10 | MCP2515 SCLK | | Pin 5 |

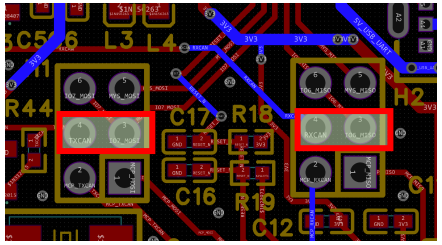
**Jumper Setting 1**

- SPI to CAN Controller
- CAN Controller to CAN transceiver



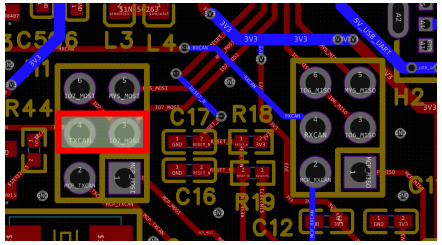

**Jumper Setting 2**

ESP -> Can Transceiver



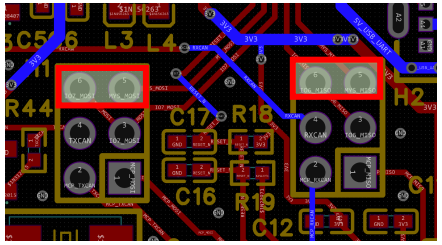

**Jumper Setting 3**

IO7 → TX LED

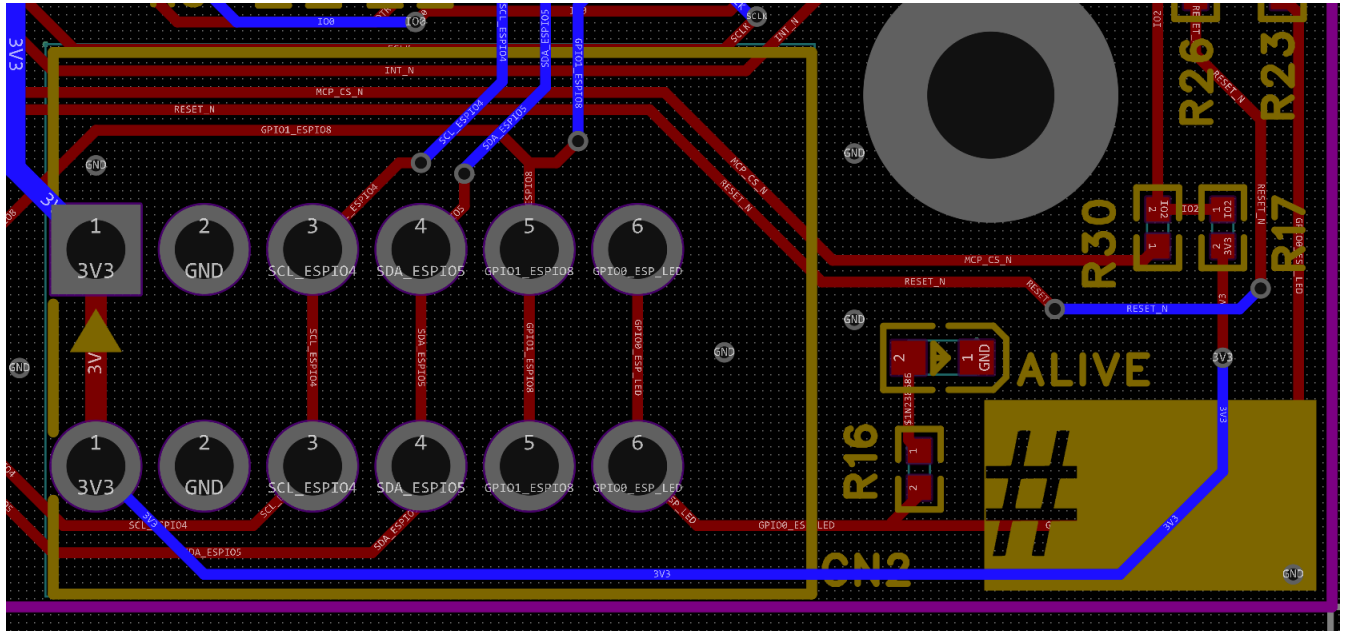



**Jumper Setting 4**

IO7_MOSI → MYS_MOSI
IO6_MISO → MYS_MISO

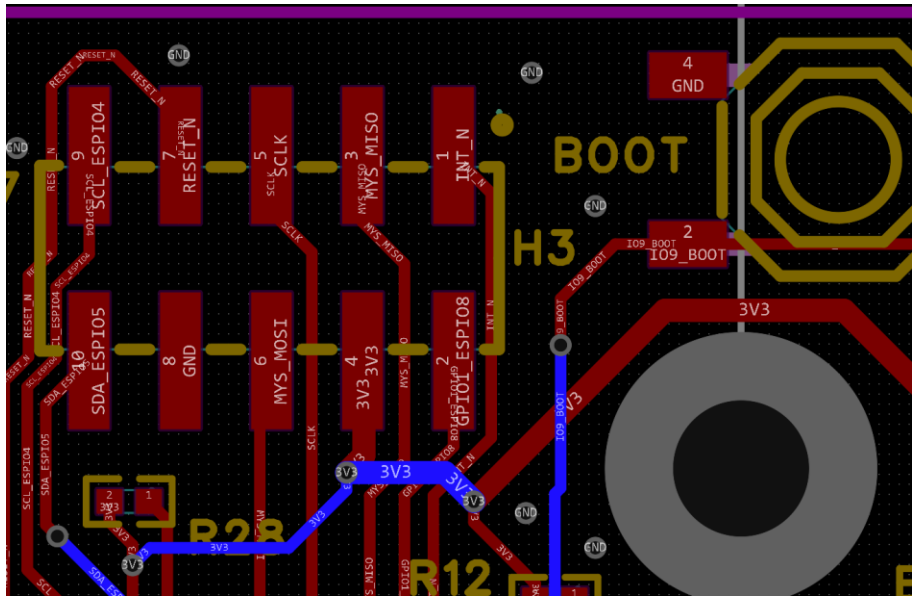


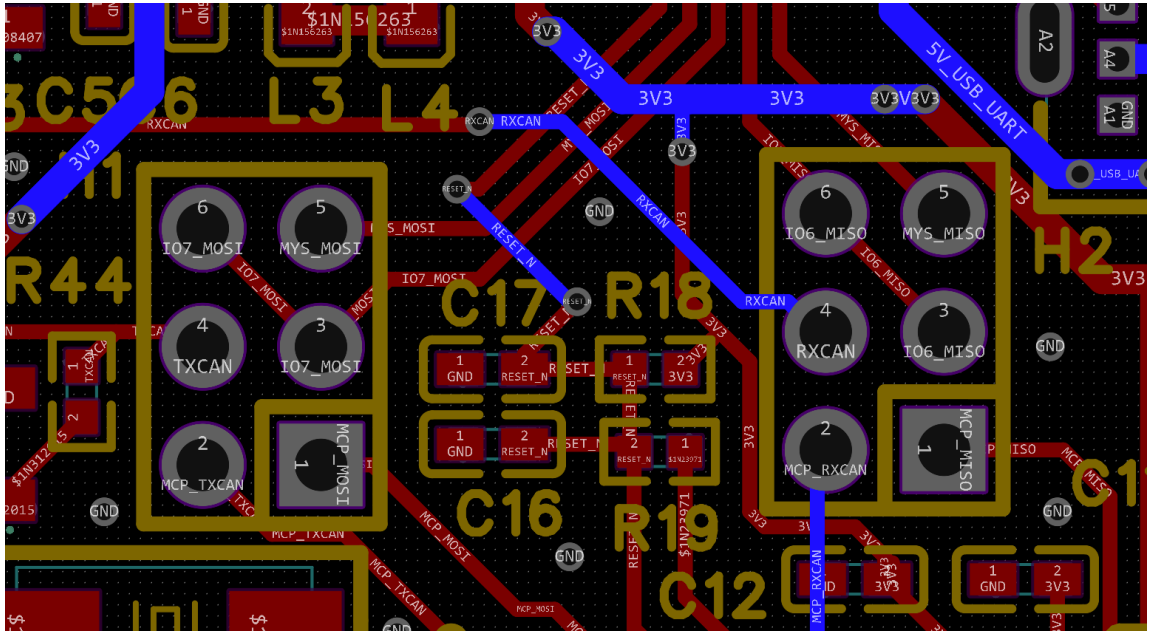
Spring Clamps




Jumper

MYS Pin Header

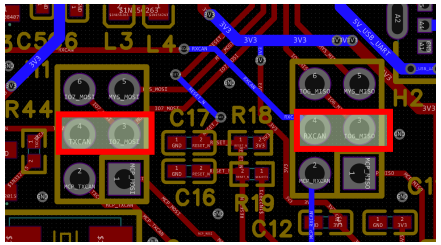


## ESP32 direct CAN mode

| ESP GPIO | Description | Mapping to Spring Connector | Mapping to Pin Header |
|---|---|---|---|
| GPIO0 | Alive  LED (active high) | Pin 6 | |
| GPIO4 | Binary Sensor (low active) | Pin 3 | Pin 9 |
| GPIO6 | Jumper 2: CAN RX | | Jumper 4: Pin 3 |
| GPIO7 | Jumper 2: CAN TX | | Jumper 4: Pin 6 |

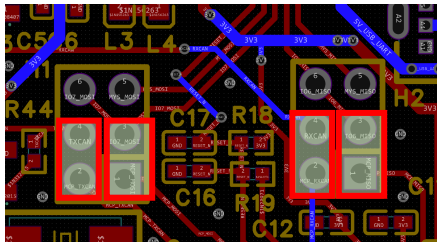
**Jumper Setting 2**
ESP -> Can Transceiver

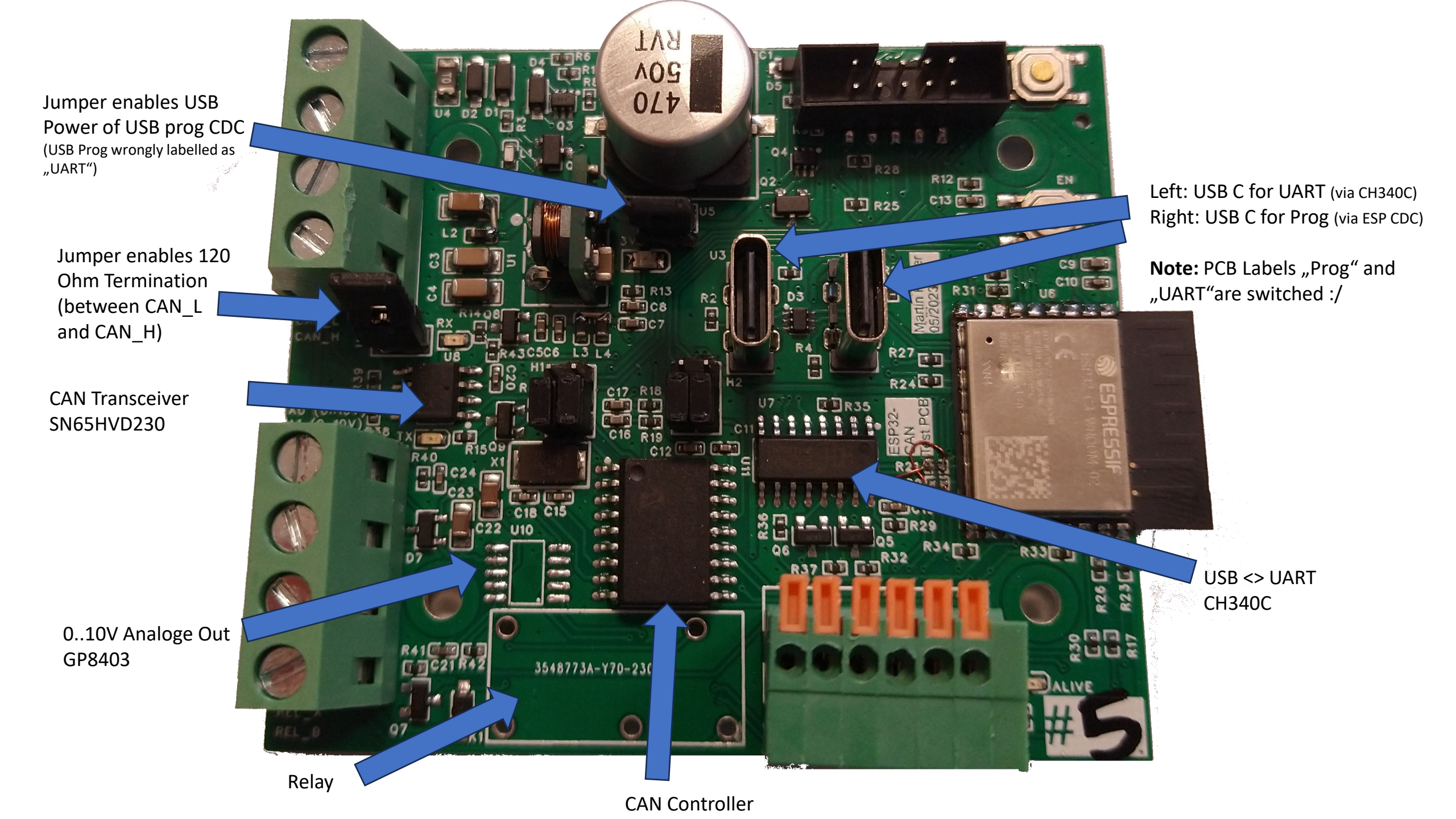


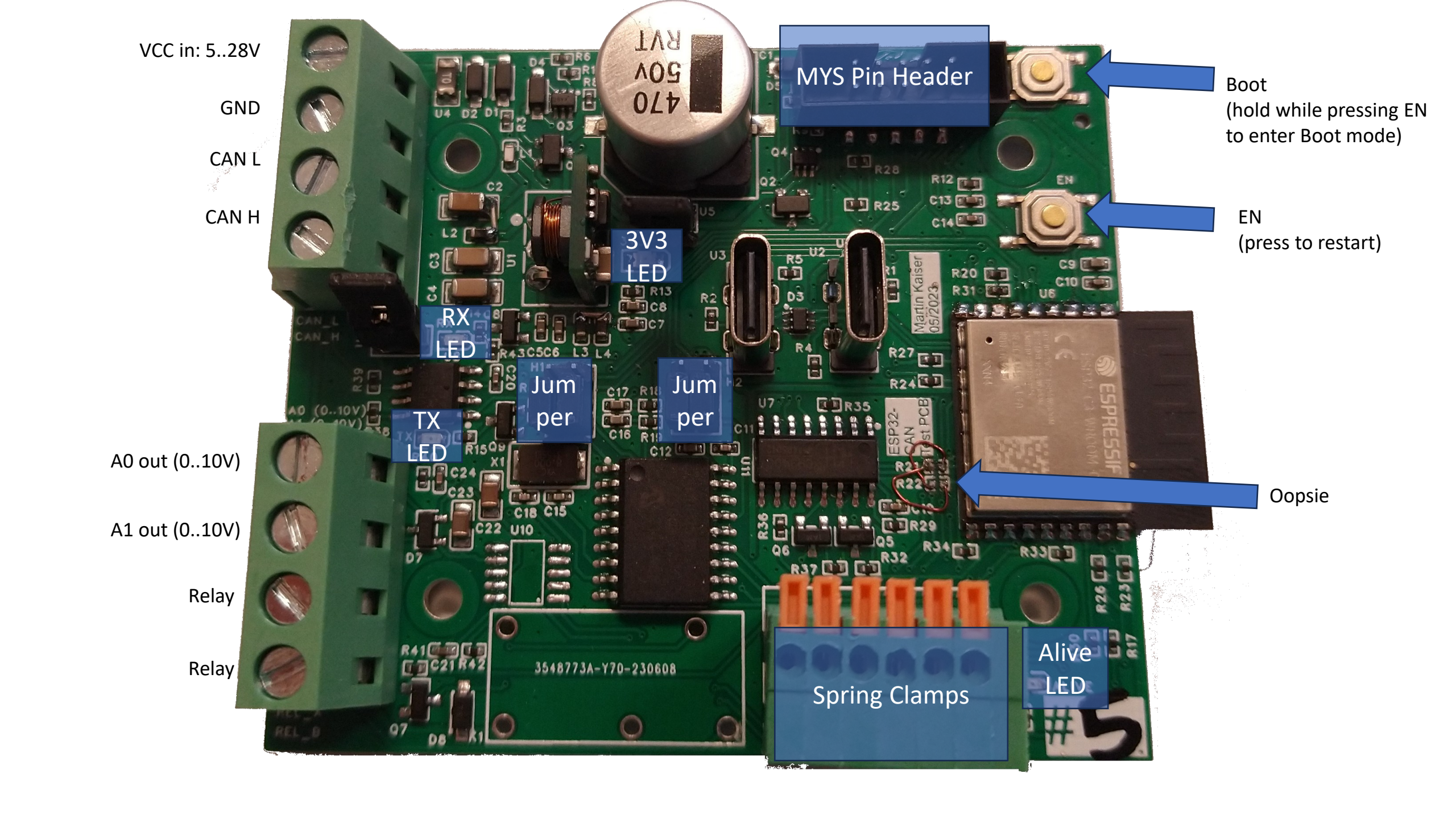

## CAN via MCP2515

| ESP GPIO | Description | Mapping to Spring Connector | Mapping to Pin Header |
|---|---|---|---|
| GPIO0 | Alive  LED (active high) | Pin 6 | |
| *GPIO1* | *MCP2515 RESET (optional)* | | *Pin 7* |
| GPIO2 | MCP2515 SPI CS | | |
| *GPIO3* | *MCP2515 INT_N (low active), optional* | | *Pin 1* |
| GPIO4 | Binary Sensor | Pin 3 (pullup) | Pin 9 |
| GPIO6 | Jumper 1: MCP2515 SPI MISO | | |
| GPIO7 | Jumper 1: MCP2515 SPI MOSI | | Jumper 4: Pin 6 |
| GPIO10 | MCP2515 SCLK | | Pin 5 |

**Jumper Setting 1**
- SPI to CAN Controller
- CAN Controller to CAN transceiver




Jumper enables USB Power of USB prog CDC
(USB Prog wrongly labelled as „UART“)
Jumper enables 120 Ohm Termination (between CAN_L and CAN_H)
CAN Transceiver SN65HVD230
0..10V Analoge Out GP8403
Relay
CAN Controller
USB <> UART CH340C
Left: USB C for UART (via CH340C)
Right: USB C for Prog (via ESP CDC)
Note: PCB Labels „Prog“ and „UART“are switched :/


VCC in: 5..28V
GND
CAN L
CAN H
A0 out (0..10V)
A1 out (0..10V)
Relay
Relay
MYS Pin Header
Boot
(hold while pressing EN
to enter Boot mode)
EN
(press to restart)
3V3
LED
RX
LED
TX
LED
Jum
per
Jum
per
Oopsie
Spring Clamps
Alive
LED
470
50V
RVT
ESPRESSIF
ESP32-
CAN
Test PCB
Martin Kaiser
05/2023
3548773A-Y70-230608