

The diagram illustrates the internal wiring of the Arduino Mega2560 Shield. Key components and connections include:

- 4D Display Connector (TX1/RX1/RESET):** Connected to pins 69 (D0\_RX0), 70 (D1\_TX0), 63 (D19\_RX1), 64 (D18\_TX1), 65 (D17\_RX2), 66 (D16\_TX2), 67 (D15\_RX3), 68 (D14\_TX3), 62 (D20\_SDA), 61 (D21\_SCL), 85 (SDA), and 86 (SCL).
- Power Section:** Features a 1.5A fuse (FR201) and a MOSFET (Q201, IFR9024) for reverse polarity protection. The MOSFET's gate is connected to the +5V pin, and its drain is connected to the +5V pin. The MOSFET's source is connected to the GND pin. The MOSFET's body is connected to the GND pin.
- Capacitors:** C201 (0.1uF 50V) and C202 (4.7uF 50V MLCC) are connected to the +5V pin and GND pin.
- Signal Pins:** The diagram shows connections for various signal pins, including D0\_RX0, D1\_TX0, D19\_RX1, D18\_TX1, D17\_RX2, D16\_TX2, D15\_RX3, D14\_TX3, D20\_SDA, D21\_SCL, SDA, SCL, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, AREF, RESET, IOREF, and VIN.
- Notes:**
  - "+5V es +5VP luego de Q301, Reverse-Protection"
  - "REVERSE POL & BACK-SUPP PROT."
  - "ARDUINO MEGA2560 MONTAJE DEBAJO DE PLACA WEMB02"

ARD/RBPI RS485 SELECTORS  
JP301 - 303  
1:2 ARDUINO  
2:3 RBPI

TI SN75HVD08  
RS485 5V/3.3V CONVERTER  
W/OUTPUT PROT.  
STD A,B,GND CONN

RX2\_ARD

JP201  
RX TO RBPI/ARD

RX\_TO\_RBPI

DIR\_485\_ARD

JP203  
DIR\_485 FROM RBPI/ARD

D485\_RBPI

TX2\_ARD

JP202  
TX\_FROM RBPI/ARD

TX\_FROM\_RBPI(TX0\_14)

+3.3V  
JP204  
+3V3RBPI/+5VARD

+5VP

R204  
10K

0.1uF 50V  
C203

PWR\_FLAG

U201  
SN75HVD08

B\_OUT

47R  
R206

47R  
R207

D201  
CD50T23-SM712

TVS DUAL  
CD50T23-SM712

RS485  
J203

TERMINATION 120R  
RESISTOR - JP305 = ON

B\_OUT

120R  
R208

JP205  
TER

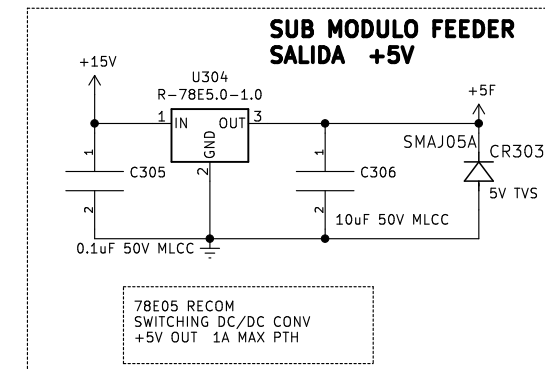
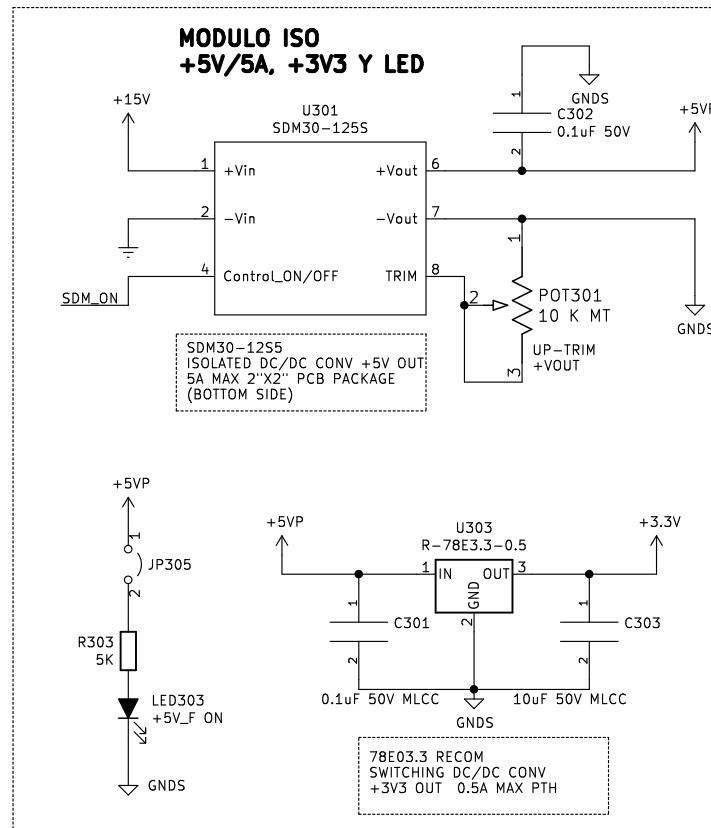
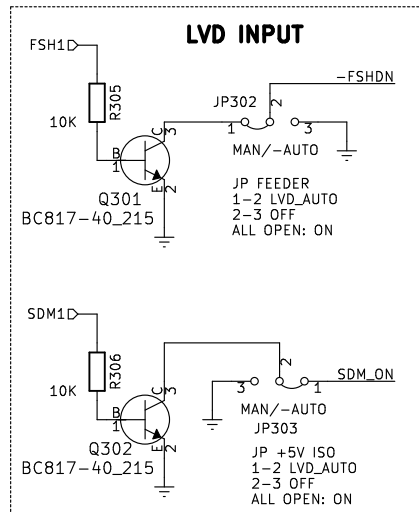
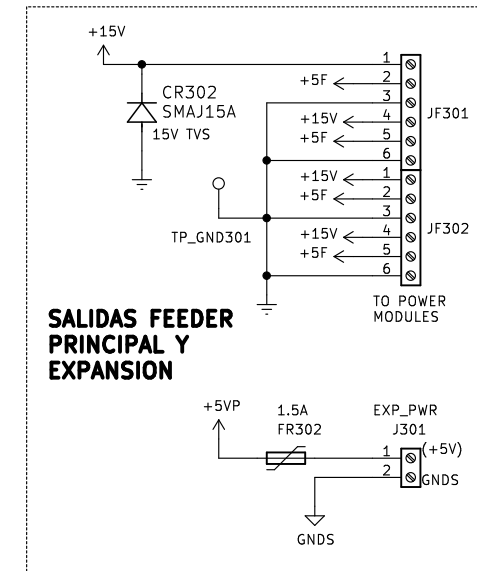
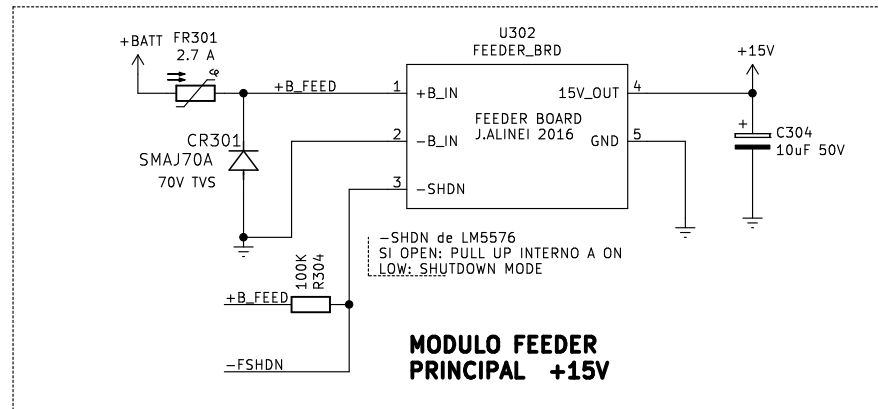
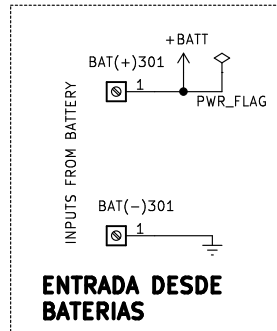
**CONECTOR A RASPBERRY-PI**

RBP1 STD CONN  
POWER +5V ISO  
& COMM PORT, DIR  
3V3 TTL LEVEL  
(RBP1 UNDER WEMB02)

Connector\_PinHeader\_2.54mm:PinHeader\_2x13\_P2.54mm\_Vertical

Sheet: /DataComm/  
File: datacomm.sch

Rev: 4-12-2018
Id: 2/4



Autor: R.Oliva  
WEMB02\_j Project  
UNPA+L&Ring para WindEmpowerment (v1.1 J.Alinei 2016)

Sheet: /Power/  
File: power.sch

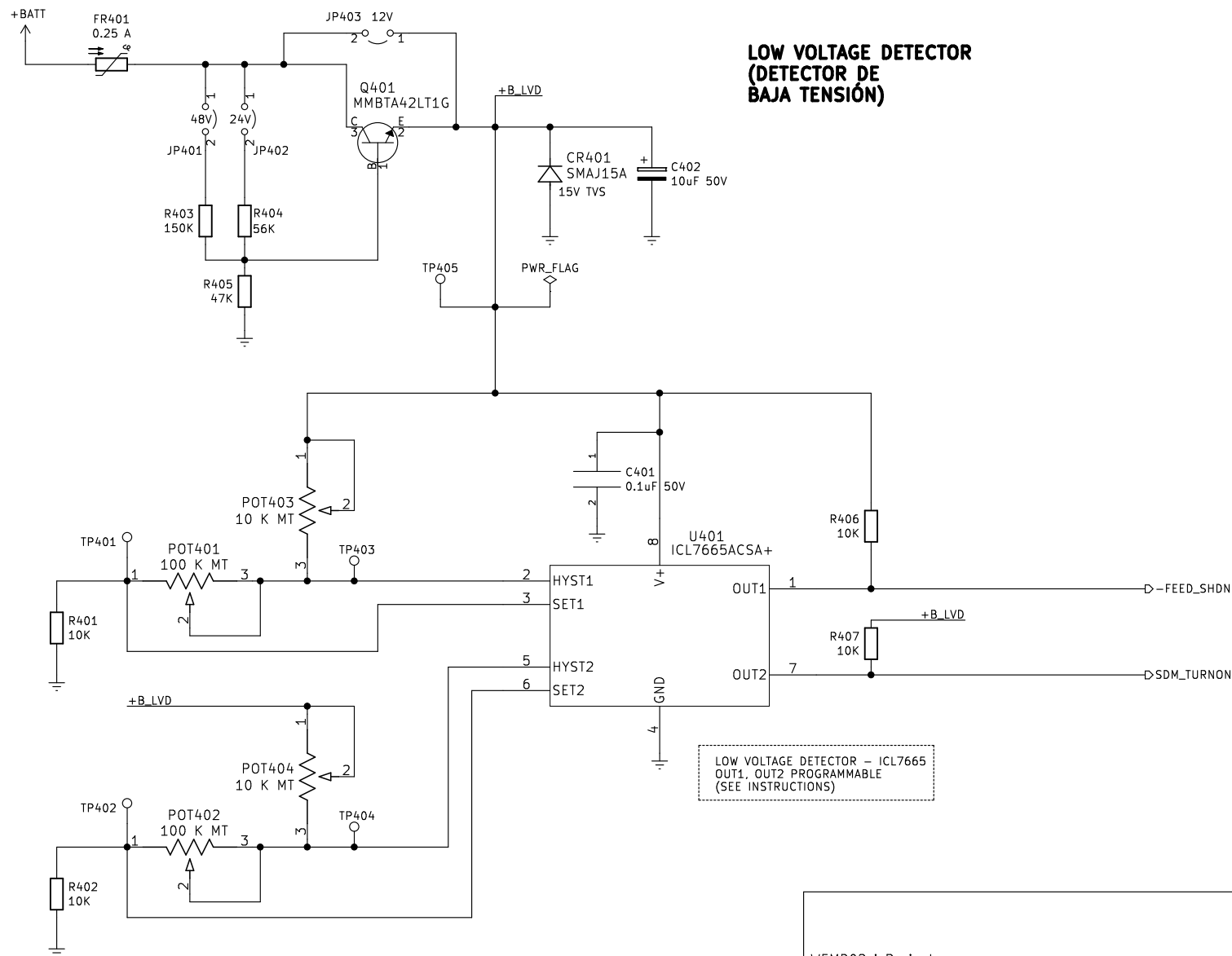
**Title: WEMB02\_j TPFinal R.Oliva / CESE2018**

Size: A4 Date: 2018-12-04

KiCad E.D.A. kicad (5.0.0)

Rev: 4-12-2018

Id: 3/4



# **LOW VOLTAGE DETECTOR (DETECTOR DE BAJA TENSIÓN)**

LOW VOLTAGE DETECTOR - ICL7665  
OUT1, OUT2 PROGRAMMABLE  
(SEE INSTRUCTIONS)

WEMB02\_j Project

Sheet: /LowV\_Detect/  
File: lvd.sch

**Title: WEMB02\_j TPFinal R.Oliva / CESE2018**

Size: A4 Date: 2018-12-04  
KiCad E.D.A. kicad (5.0.0)

**Rev: 4-12-2018**  
Id: 4/4