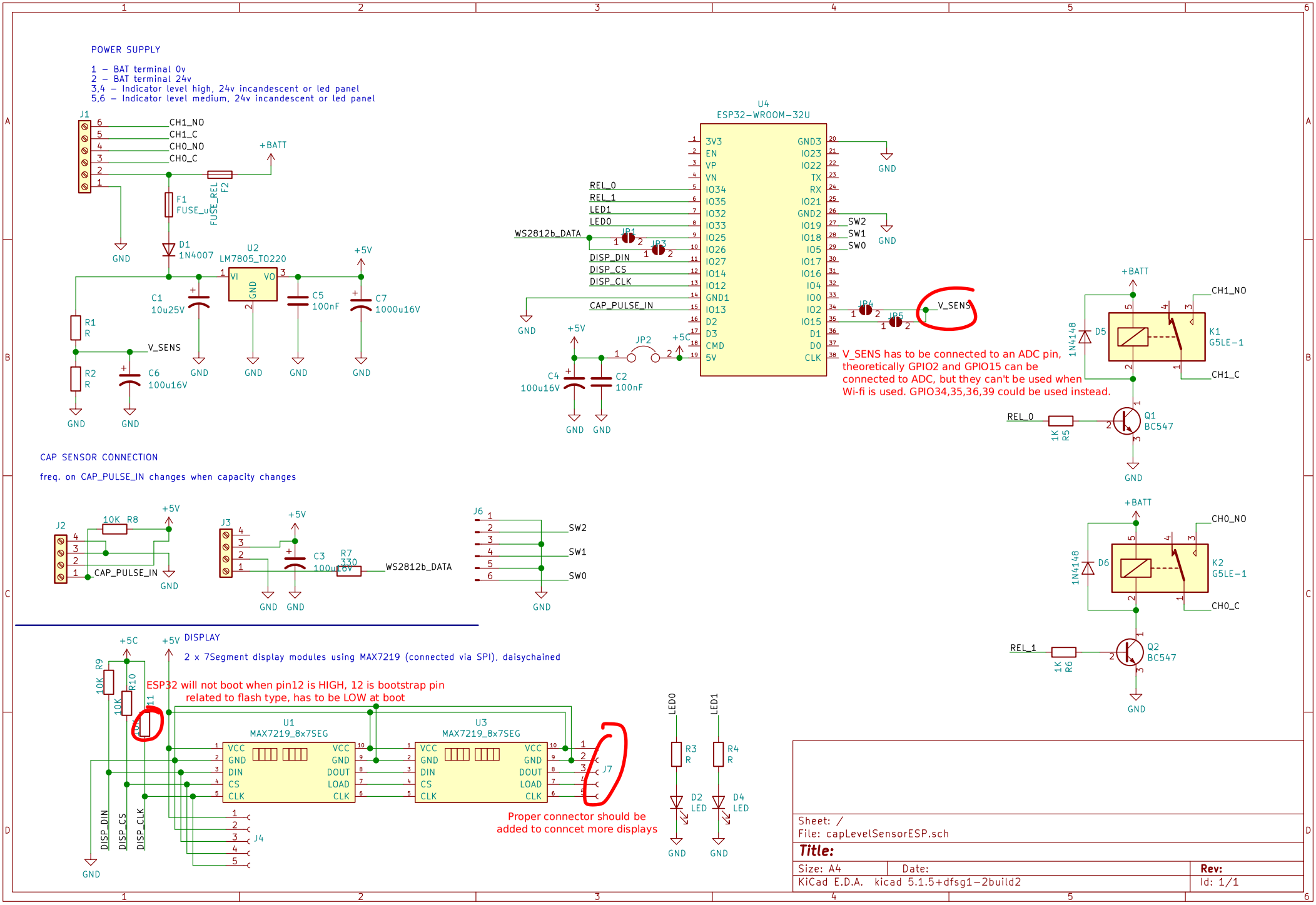
POWER SUPPLY
1 – BAT terminal 0v
2 – BAT terminal 24v
3,4 – Indicator level high, 24v incandescent or led panel
5,6 – Indicator level medium, 24v incandescent or led panel
J1
CH1_NO
CH1_C
CH0_NO
CH0_C
+BATT
F1
FUSE_u
FUSE_REL
F2
D1
1N4007
U2
LM7805_TO220
VI
VO
GND
+5V
C1
10u25V
C5
100nF
C7
1000u16V
R1
R
R2
R
V_SENS
C6
100u16V
GND
U4
ESP32-WROOM-32U
3V3
EN
VP
VN
IO34
IO35
IO32
IO33
IO25
IO26
IO27
IO14
IO12
GND1
IO13
D2
D3
CMD
5V
GND3
IO23
IO22
TX
RX
IO21
GND2
IO19
IO18
IO5
IO17
IO16
IO4
IO0
IO2
IO15
D1
D0
CLK
REL_0
REL_1
LED1
LED0
WS2812b_DATA
DISP_DIN
DISP_CS
DISP_CLK
CAP_PULSE_IN
SW2
SW1
SW0
JP1
JP3
JP4
JP5
JP2
+5C
C4
100u16V
C2
100nF
V_SENS has to be connected to an ADC pin, theoretically GPIO2 and GPIO15 can be connected to ADC, but they can't be used when Wi-fi is used. GPIO34,35,36,39 could be used instead.
+BATT
CH1_NO
CH1_C
D5
1N4148
K1
G5LE-1
REL_0
1K
R5
Q1
BC547
CAP SENSOR CONNECTION
freq. on CAP_PULSE_IN changes when capacity changes
J2
10K
R8
CAP_PULSE_IN
J3
C3
100u16V
R7
330
WS2812b_DATA
J6
SW2
SW1
SW0
+BATT
CH0_NO
CH0_C
D6
1N4148
K2
G5LE-1
REL_1
1K
R6
Q2
BC547
DISPLAY
2 x 7Segment display modules using MAX7219 (connected via SPI), daisychained
+5C
+5V
R9
10K
R10
10K
C11
ESP32 will not boot when pin12 is HIGH, 12 is bootstrap pin related to flash type, has to be LOW at boot
U1
MAX7219_8x7SEG
U3
MAX7219_8x7SEG
VCC
GND
DIN
CS
CLK
DOUT
LOAD
J7
J4
DISP_DIN
DISP_CS
DISP_CLK
Proper connector should be added to conncet more displays
LED0
LED1
R3
R
R4
R
D2
LED
D4
LED
Sheet: /
File: capLevelSensorESP.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2
Id: 1/1