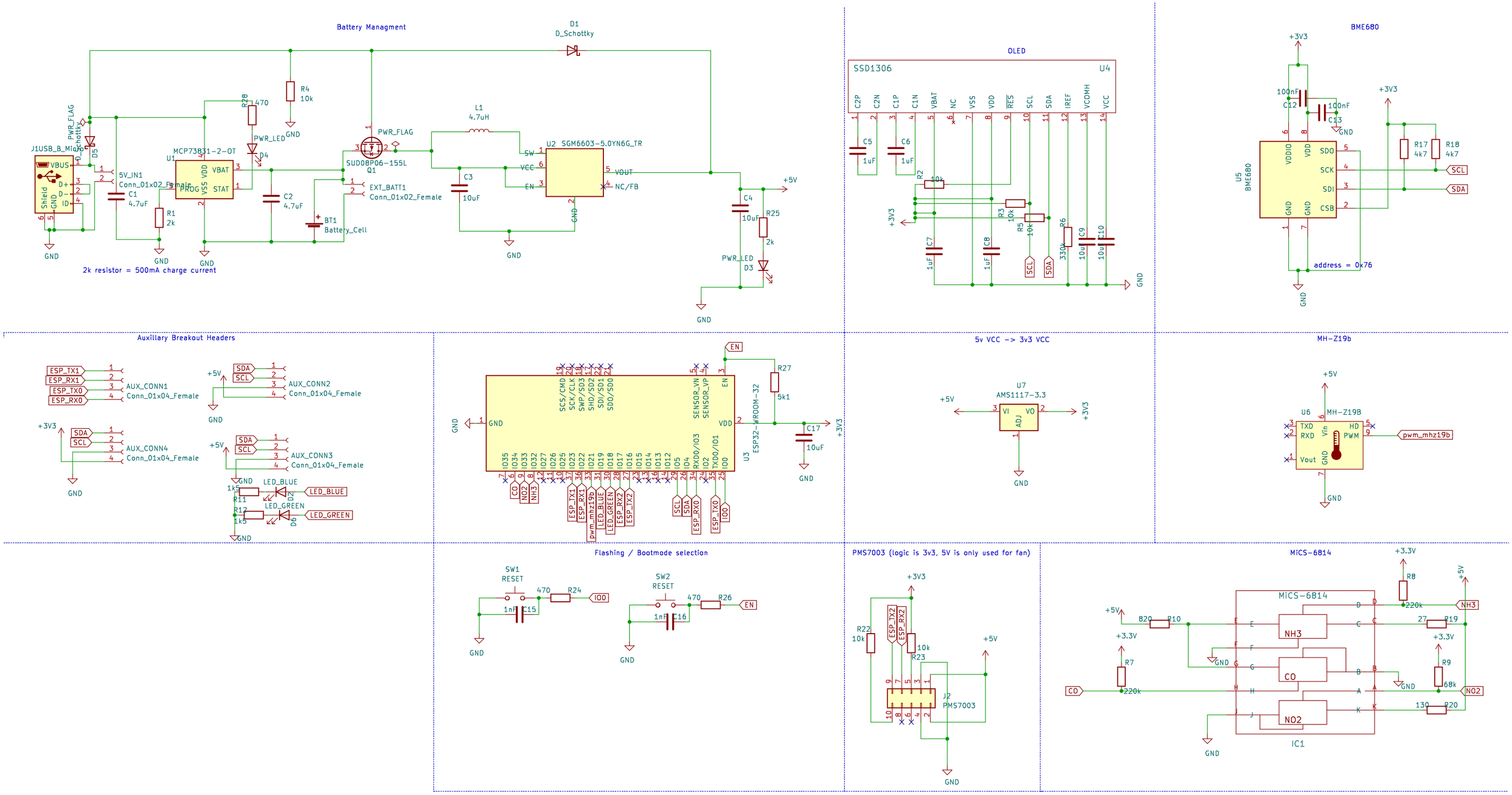
Battery Managment
D1
D_Schottky
J1USB_B_Micro
PWR_FLAG
D5
Schottky
VBUS
D+
D-
ID
Shield
GND
5V_IN1
Conn_01x02_Female
C1
4.7uF
R1
2k
U1
MCP73831-2-OT
PROG
VSS
VDD
VBAT
STAT
R28
470
PWR_LED
D4
R4
10k
C2
4.7uF
BT1
Battery_Cell
PWR_FLAG
Q1
SUD08P06-155L
EXT_BATT1
Conn_01x02_Female
L1
4.7uH
C3
10uF
U2 SGM6603-5.0YN6G_TR
SW
VCC
EN
VOUT
NC/FB
GND
C4
10uF
R25
2k
PWR_LED
D3
+5V
2k resistor = 500mA charge current
OLED
SSD1306
U4
C2P
C2N
C1P
C1N
VBAT
NC
VSS
VDD
RES
SCL
SDA
IREF
VCOMH
VCC
C5
1uF
C6
1uF
R2
10k
R3
10k
R5
10k
R6
330k
C7
1uF
C8
1uF
C9
10uF
C10
10uF
+3V3
BME680
U5
BME680
VDDIO
VDD
SDO
SCK
SDI
CSB
GND
C12
100nF
C13
100nF
R17
4k7
R18
4k7
SCL
SDA
address = 0x76
Auxillary Breakout Headers
ESP_TX1
ESP_RX1
ESP_TX0
ESP_RX0
AUX_CONN1
Conn_01x04_Female
AUX_CONN2
Conn_01x04_Female
AUX_CONN4
Conn_01x04_Female
AUX_CONN3
Conn_01x04_Female
LED_BLUE
LED_GREEN
R11
1k5
R12
1k5
D2
D6
EN
R27
5k1
C17
10uF
U3
ESP32-WROOM-32
SCS/CMD
SCK/CLK
SWP/SD3
SHD/SD2
SDI/SD1
SDO/SD0
SENSOR_VN
SENSOR_VP
VDD
RXD0/IO3
TXD0/IO1
IO35
IO34
IO33
IO32
IO27
IO26
IO25
IO23
IO22
IO21
IO19
IO18
IO17
IO16
IO15
IO14
IO13
IO12
IO5
IO4
IO2
IO0
CO
NO2
NH3
ESP_TX1
ESP_RX1
pwm_mhz19b
LED_BLUE
LED_GREEN
ESP_RX2
ESP_TX2
ESP_RXO
ESP_TXO
IO0
5v VCC -> 3v3 VCC
U7
AMS1117-3.3
VI
VO
ADJ
MH-Z19b
U6
MH-Z19B
TXD
RXD
Vin
HD
PWM
Vout
GND
pwm_mhz19b
Flashing / Bootmode selection
SW1
RESET
470
R24
IO0
1nF
C15
SW2
RESET
470
R26
EN
1nF
C16
PMS7003 (logic is 3v3, 5V is only used for fan)
R22
10k
ESP_TX2
ESP_RX2
10k
R23
J2
PMS7003
MiCS-6814
MiCS-6814
NH3
CO
NO2
IC1
B20
R10
R7
220k
R8
220k
R19
27
R9
68k
R20
130
CO
NH3
NO2