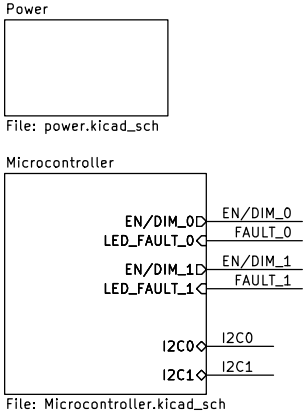
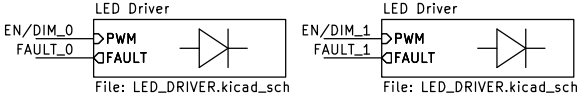
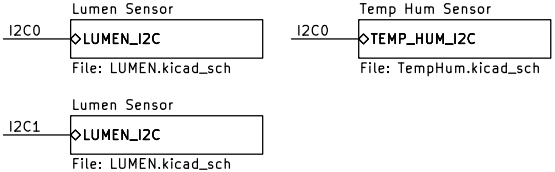
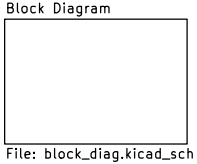
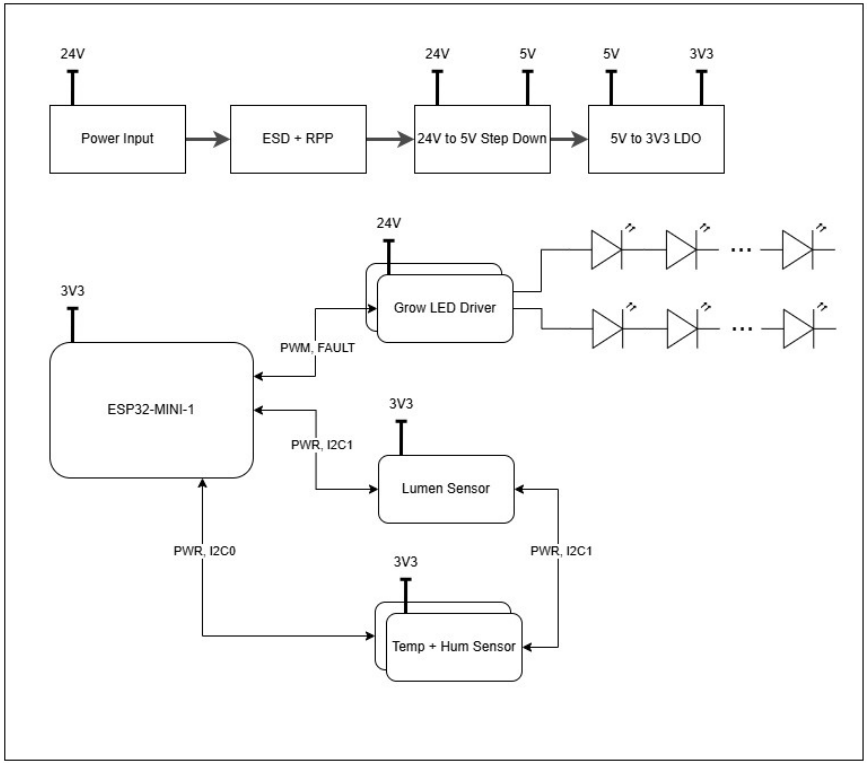
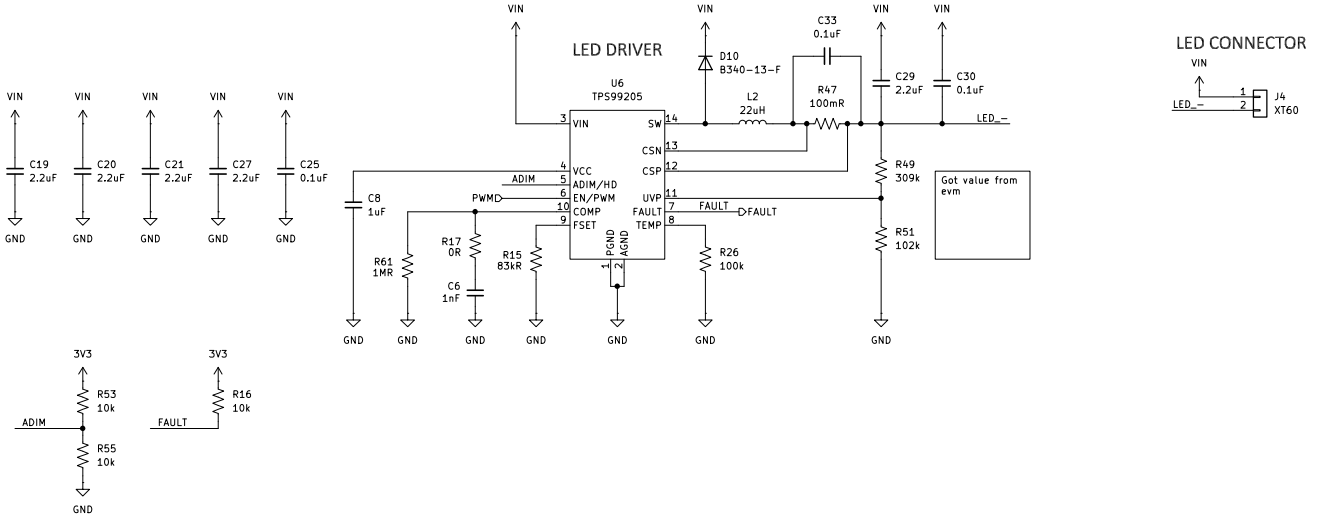

Power
File: power.kicad_sch
Microcontroller
EN/DIM_0
LED_FAULT_0
EN/DIM_1
LED_FAULT_1
I2C0
I2C1
EN/DIM_0
FAULT_0
EN/DIM_1
FAULT_1
I2C0
I2C1
File: Microcontroller.kicad_sch


LED Driver
EN/DIM_0
FAULT_0
PWM
FAULT
File: LED_DRIVER.kicad_sch
LED Driver
EN/DIM_1
FAULT_1
PWM
FAULT
File: LED_DRIVER.kicad_sch

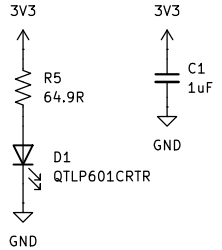

Lumen Sensor
I2C0
LUMEN_I2C
File: LUMEN.kicad_sch
Temp Hum Sensor
I2C0
TEMP_HUM_I2C
File: TempHum.kicad_sch
Lumen Sensor
I2C1
LUMEN_I2C
File: LUMEN.kicad_sch


Block Diagram
File: block_diag.kicad_sch

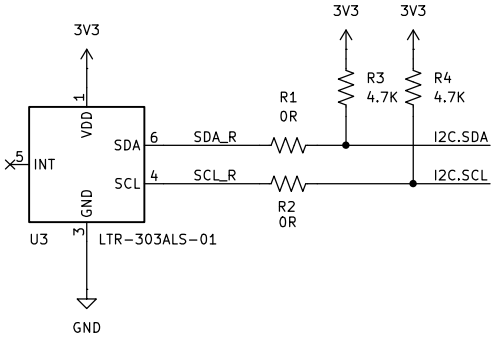

24V
Power Input
ESD + RPP
24V
5V
24V to 5V Step Down
5V
3V3
5V to 3V3 LDO
24V
Grow LED Driver
3V3
ESP32-MINI-1
PWM, FAULT
3V3
PWR, I2C1
Lumen Sensor
PWR, I2C0
PWR, I2C1
3V3
Temp + Hum Sensor


LED DRIVER
U6
TPS99205
VIN
SW
CSN
CSP
UVP
FAULT
TEMP
VCC
ADIM/HD
EN/PWM
COMP
FSET
PGND
AGND
ADIM
PWMD
FAULT
D10
B340-13-F
L2
22uH
R47
100mR
C33
0.1uF
C29
2.2uF
C30
0.1uF
LED_-
R49
309k
R51
102k
Got value from evm
C8
1uF
R17
0R
C6
1nF
R61
1MR
R15
83kR
R26
100k
C19
2.2uF
C20
2.2uF
C21
2.2uF
C27
2.2uF
C25
0.1uF
GND
3V3
R53
10k
R55
10k
R16
10k
LED CONNECTOR
J4
XT60

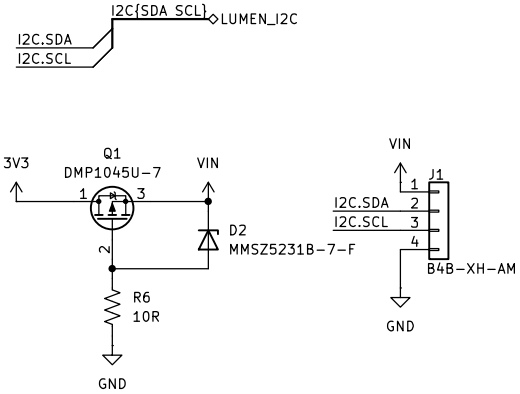
STATUS LED



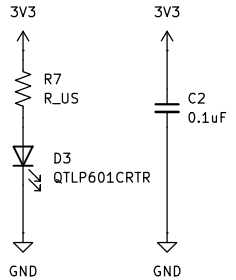
Luminosity Sensor



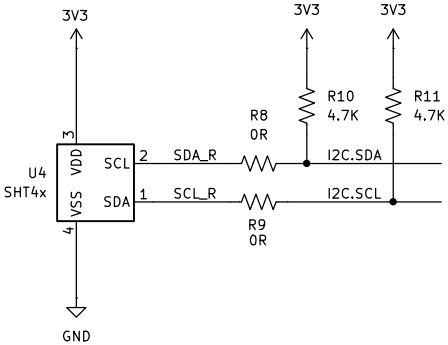
Connector + Protection



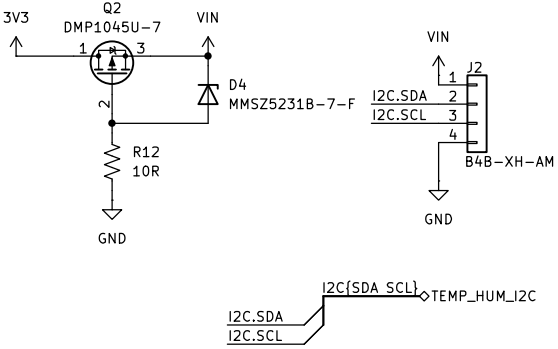
STATUS LED



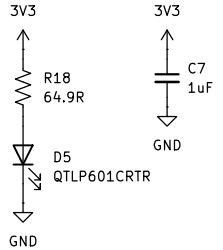
Temp + Hum Sensor



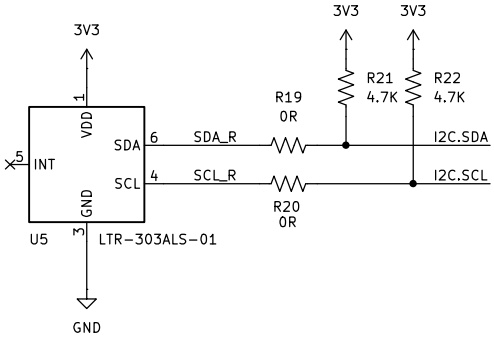
Connector + Protection



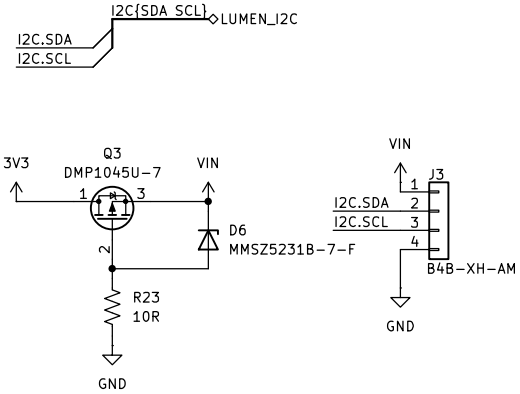
STATUS LED

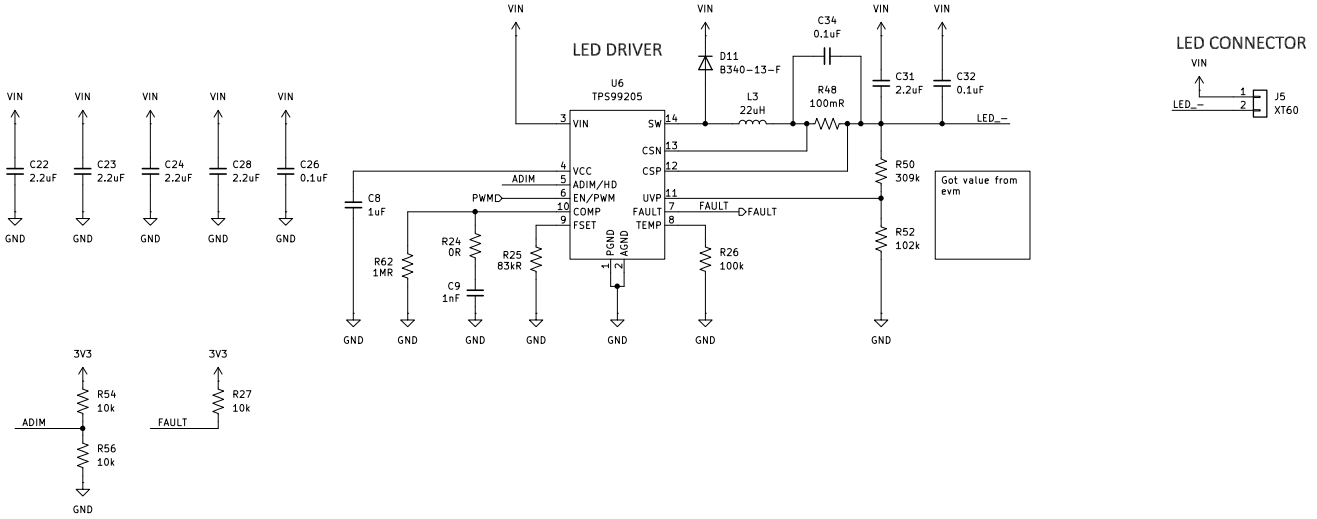


Luminosity Sensor



Connector + Protection

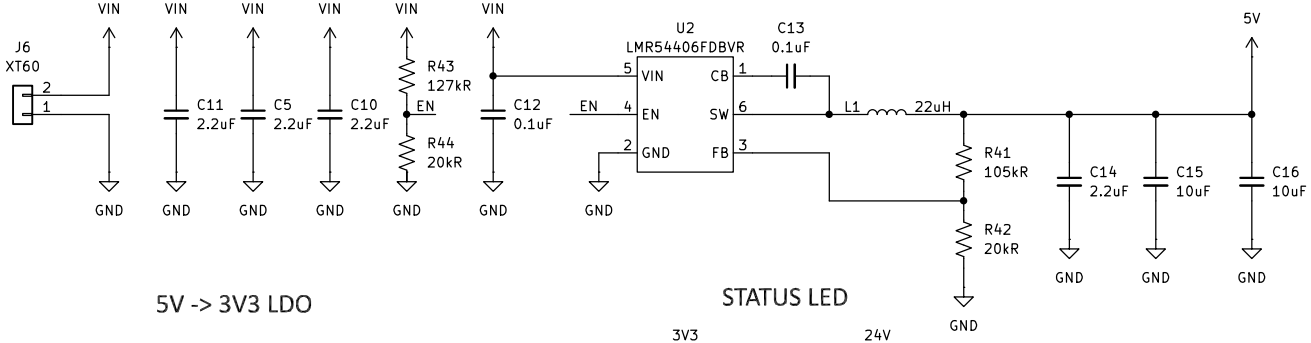



LED DRIVER
U6
TPS99205
VIN
SW
CSN
CSP
UVP
FAULT
TEMP
VCC
ADIM/HD
EN/PWM
COMP
FSET
PGND
AGND
ADIM
PWMD
D11
B340-13-F
L3
22uH
C34
0.1uF
R48
100mR
C31
2.2uF
C32
0.1uF
LED_-
R50
309k
R52
102k
Got value from evm
C8
1uF
R62
1MR
R24
0R
C9
1nF
R25
83kR
R26
100k
C22
2.2uF
C23
2.2uF
C24
2.2uF
C28
2.2uF
C26
0.1uF
GND
3V3
R54
10k
R56
10k
R27
10k
LED CONNECTOR
J5
XT60

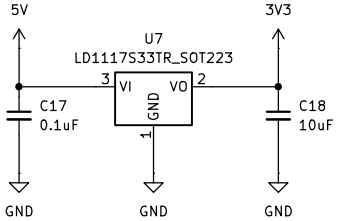
VIN: 24V
I_in: 12 A

INPUT CONNECTOR

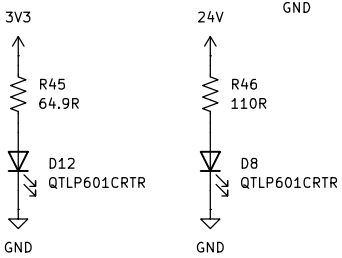
24 -> 5V Buck



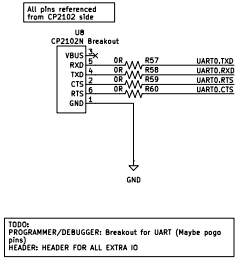
5V -> 3V3 LDO



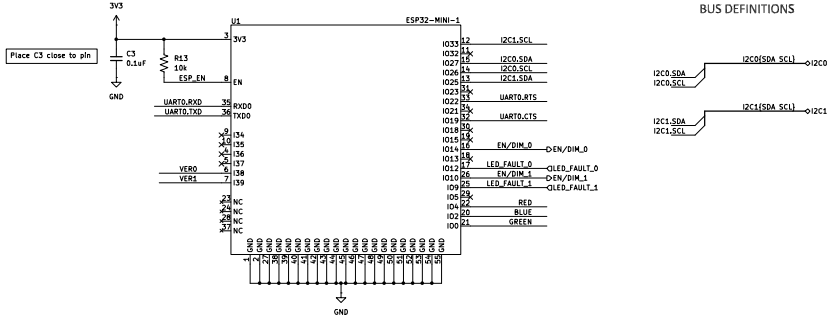
STATUS LED



CP2102 Breakout

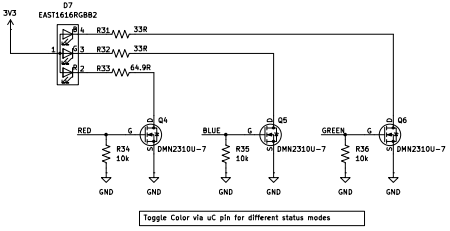


Microcontroller Module

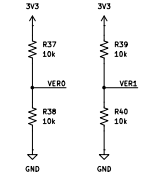


BUS DEFINITIONS

RGB STATUS LED

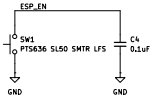


VERSIONING RESISTORS



Versioning Resistors for HW to detect SW Version. DNP appropriately

RESET



Place C4 close to switch

PULLUPS