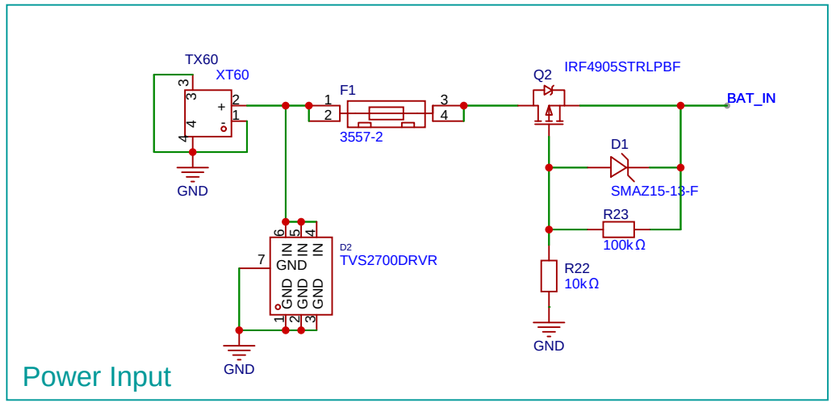
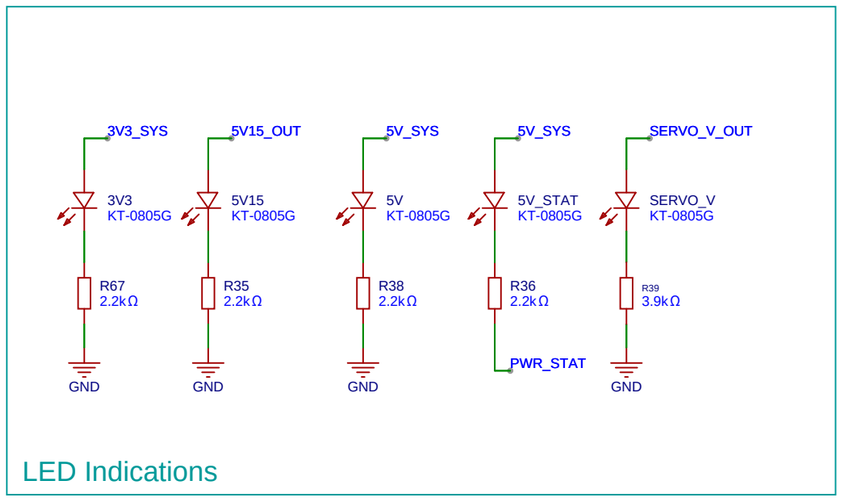
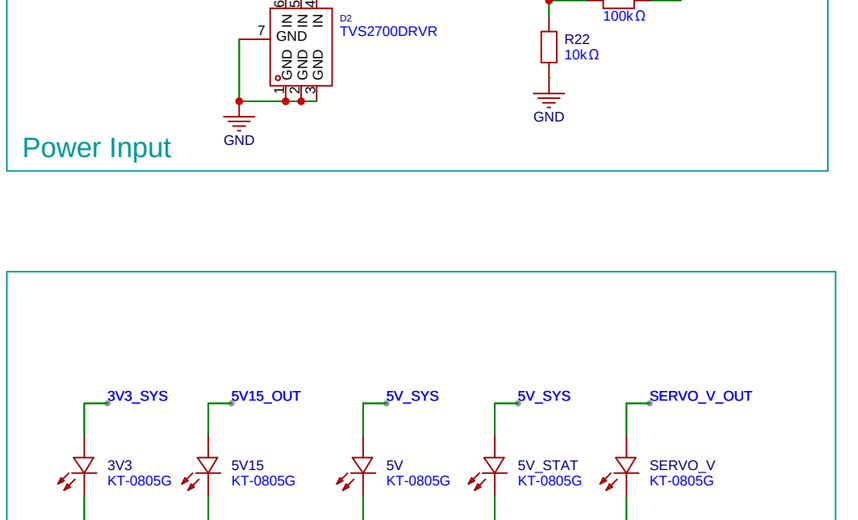
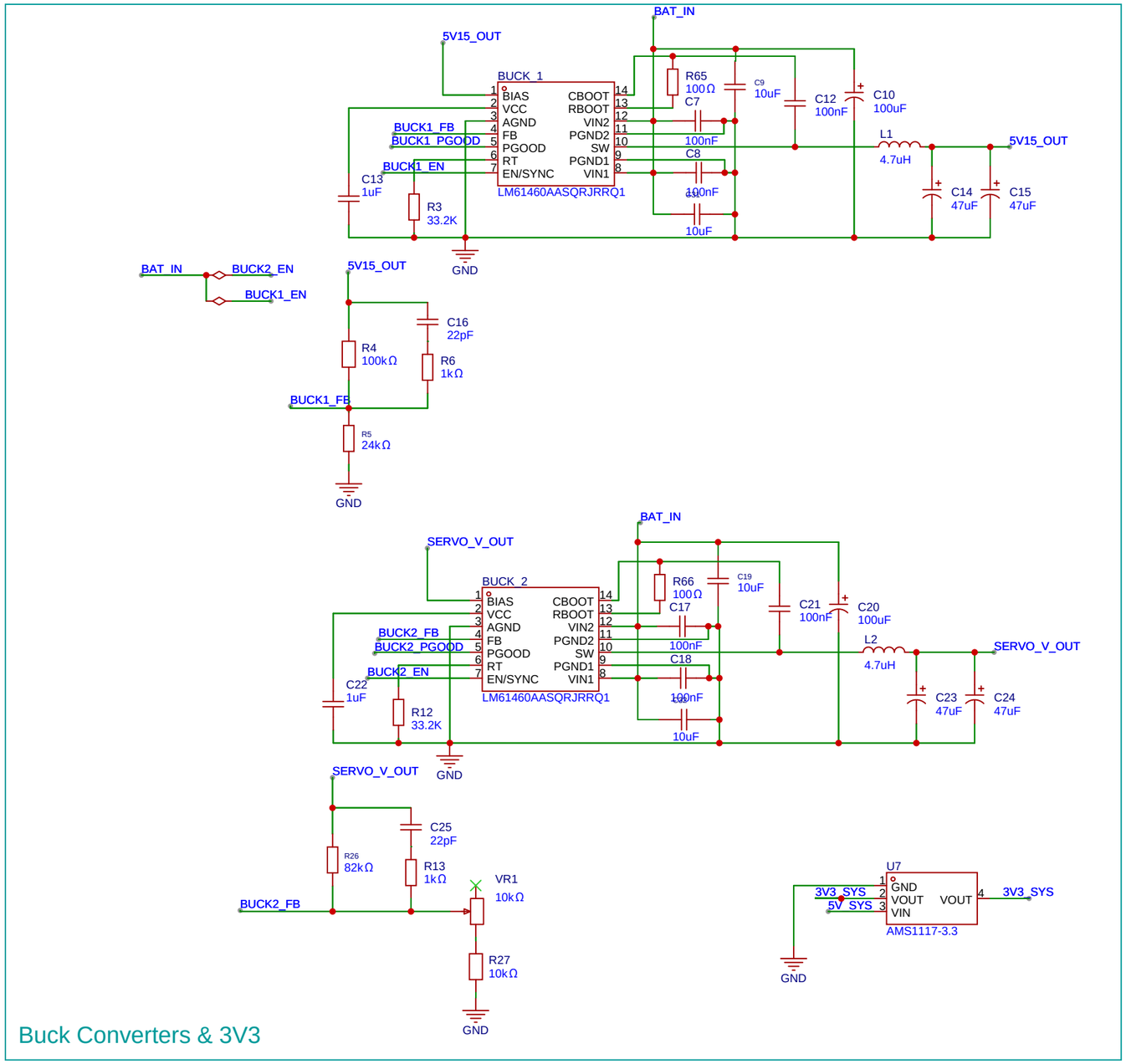
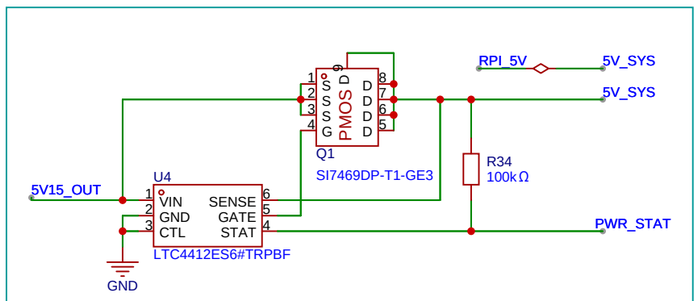
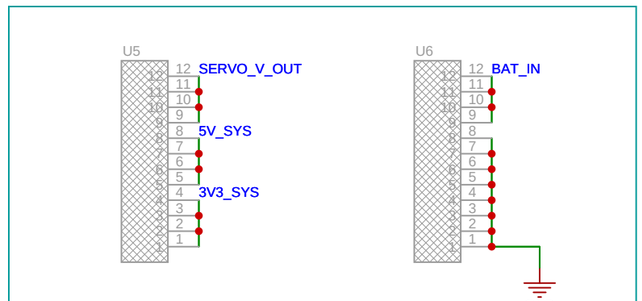

TX60
XT60
F1
3557-2
Q2
IRF4905STRLPBF
BAT_IN
D1
SMAZ15-13-F
R23
100kΩ
R22
10kΩ
D2
TVS2700DRVR
IN
GND
GND
Power Input

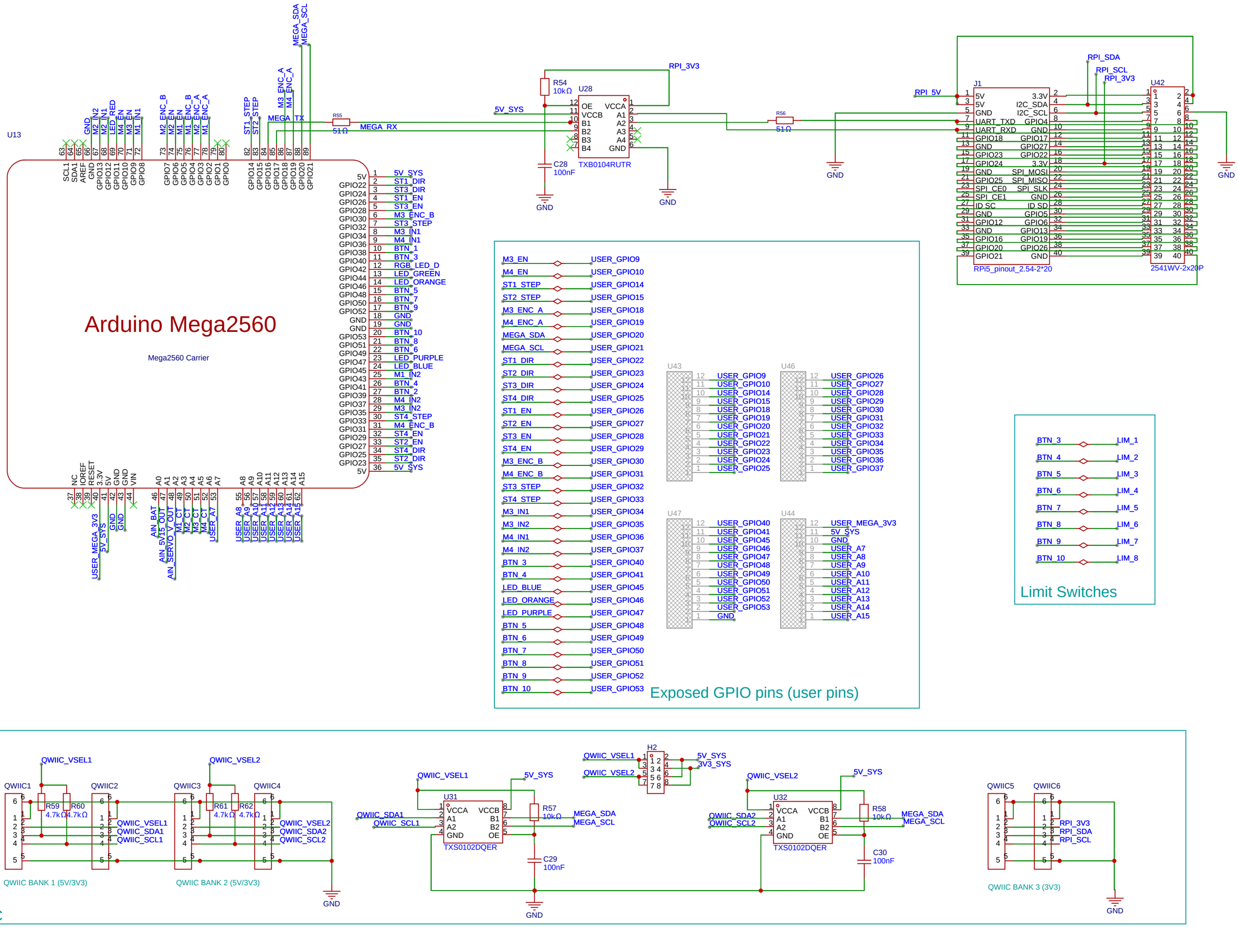

3V3_SYS
5V15_OUT
5V_SYS
5V_SYS
SERVO_V_OUT
3V3
KT-0805G
5V15
KT-0805G
5V
KT-0805G
5V_STAT
KT-0805G
SERVO_V
KT-0805G
R67
2.2kΩ
R35
2.2kΩ
R38
2.2kΩ
R36
2.2kΩ
R39
3.9kΩ
PWR_STAT
GND
LED Indications

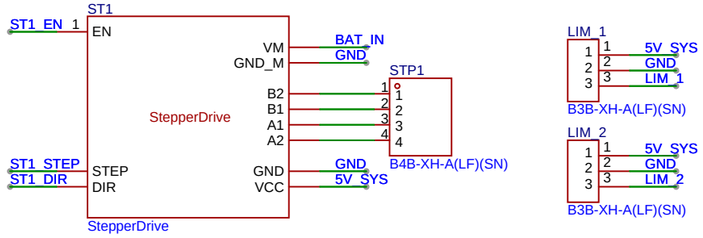

BAT_IN
5V15_OUT
5V_SYS
SERVO_V_OUT
3V3_SYS
BUCK1_PGOOD
BUCK2_PGOOD
R25
50kΩ
R32
10kΩ
R33
20kΩ
AIN_BAT
AIN_5V15_OUT
AIN_SERVO_V_OUT
R24
10kΩ
R28
10kΩ
R30
10kΩ
GND
Monitoring

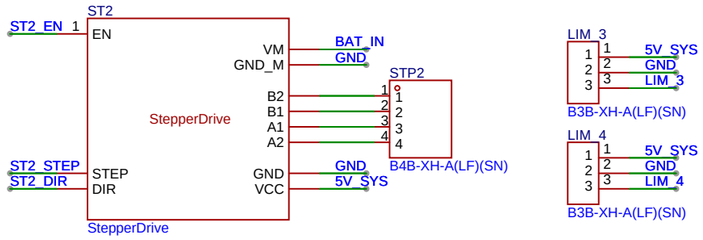

BAT_IN
5V15_OUT
BUCK_1
BIAS
VCC
AGND
FB
PGOOD
RT
EN/SYNC
CBOOT
RBOOT
VIN2
PGND2
SW
PGND1
VIN1
LM61460AASQRJRRQ1
BUCK1_FB
BUCK1_PGOOD
BUCK1_EN
C13
1uF
R3
33.2K
R65
100Ω
C7
100nF
C8
100nF
C9
10uF
C12
100nF
C10
100uF
L1
4.7uH
C14
47uF
C15
47uF
5V15_OUT
BAT_IN
BUCK2_EN
BUCK1_EN
C16
22pF
R4
100kΩ
R6
1kΩ
BUCK1_FB
R5
24kΩ
GND
SERVO_V_OUT
BAT_IN
BUCK_2
BUCK2_FB
BUCK2_PGOOD
BUCK2_EN
C22
1uF
R12
33.2K
R66
100Ω
C17
100nF
C18
100nF
C19
10uF
C21
100nF
C20
100uF
L2
4.7uH
C23
47uF
C24
47uF
SERVO_V_OUT
SERVO_V_OUT
C25
22pF
R26
82kΩ
R13
1kΩ
VR1
10kΩ
BUCK2_FB
R27
10kΩ
U7
GND
VOUT
VIN
3V3_SYS
5V_SYS
AMS1117-3.3
Buck Converters & 3V3

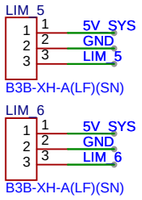

RPI_5V
5V_SYS
5V_SYS
PMOS
Q1
SI7469DP-T1-GE3
R34
100kΩ
5V15_OUT
U4
VIN
GND
CTL
SENSE
GATE
STAT
LTC4412ES6#TRPBF
PWR_STAT
GND
Ideal Diode

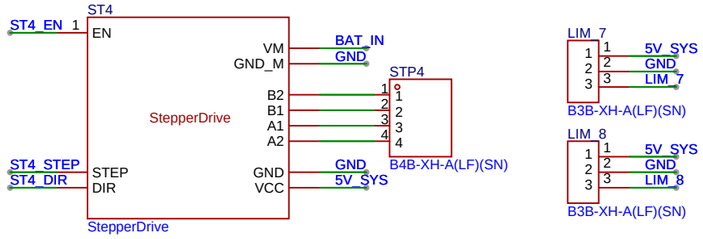

U5
SERVO_V_OUT
5V_SYS
3V3_SYS
U6
BAT_IN
GND
Power Outputs


Arduino Mega2560
Mega2560 Carrier
U13
MEGA_SDA
MEGA_SCL
MEGA_TX
MEGA_RX
M3_ENC_A
M4_ENC_A
R55
51Ω
RPI_3V3
R54
10kΩ
U28
5V_SYS
OE
VCCA
VCCB
A1
B1
A2
B2
A3
B3
A4
B4
GND
TXB0104RUTR
C28
100nF
R56
51Ω
RPI_5V
J1
5V
3.3V
I2C_SDA
I2C_SCL
UART_TXD
GPIO4
UART_RXD
GPIO18
GPIO17
GPIO27
GPIO23
GPIO22
GPIO24
SPI_MOSI
GPIO25
SPI_MISO
SPI_CE0
SPI_SLK
SPI_CE1
ID SC
ID SD
GPIO5
GPIO6
GPIO13
GPIO19
GPIO16
GPIO26
GPIO20
GPIO21
RPi5_pinout_2.54-2*20
RPI_SDA
RPI_SCL
U42
2541WV-2x20P
M3_EN
M4_EN
ST1_STEP
ST2_STEP
M3_ENC_A
M4_ENC_A
MEGA_SDA
MEGA_SCL
ST1_DIR
ST2_DIR
ST3_DIR
ST4_DIR
ST1_EN
ST2_EN
ST3_EN
ST4_EN
M3_ENC_B
M4_ENC_B
ST3_STEP
ST4_STEP
M3_IN1
M3_IN2
M4_IN1
M4_IN2
BTN_3
BTN_4
LED_BLUE
LED_ORANGE
LED_PURPLE
BTN_5
BTN_6
BTN_7
BTN_8
BTN_9
BTN_10
USER_GPIO9
USER_GPIO10
USER_GPIO14
USER_GPIO15
USER_GPIO18
USER_GPIO19
USER_GPIO20
USER_GPIO21
USER_GPIO22
USER_GPIO23
USER_GPIO24
USER_GPIO25
USER_GPIO26
USER_GPIO27
USER_GPIO28
USER_GPIO29
USER_GPIO30
USER_GPIO31
USER_GPIO32
USER_GPIO33
USER_GPIO34
USER_GPIO35
USER_GPIO36
USER_GPIO37
USER_GPIO40
USER_GPIO41
USER_GPIO45
USER_GPIO46
USER_GPIO47
USER_GPIO48
USER_GPIO49
USER_GPIO50
USER_GPIO51
USER_GPIO52
USER_GPIO53
U43
U46
U47
U44
USER_MEGA_3V3
5V_SYS
GND
USER_A7
USER_A8
USER_A9
USER_A10
USER_A11
USER_A12
USER_A13
USER_A14
USER_A15
Exposed GPIO pins (user pins)
BTN_3
BTN_4
BTN_5
BTN_6
BTN_7
BTN_8
BTN_9
BTN_10
LIM_1
LIM_2
LIM_3
LIM_4
LIM_5
LIM_6
LIM_7
LIM_8
Limit Switches
QWIIC_VSEL1
QWIIC_VSEL2
QWIIC1
QWIIC2
QWIIC3
QWIIC4
R59
4.7kΩ
R60
4.7kΩ
R61
4.7kΩ
R62
4.7kΩ
QWIIC_SDA1
QWIIC_SCL1
QWIIC_SDA2
QWIIC_SCL2
QWIIC BANK 1 (5V/3V3)
QWIIC BANK 2 (5V/3V3)
H2
3V3_SYS
U31
U32
TXS0102DQER
R57
10kΩ
R58
10kΩ
C29
100nF
C30
100nF
QWIIC5
QWIIC6
RPI_3V3
RPI_SDA
RPI_SCL
QWIIC BANK 3 (3V3)
QWIIC

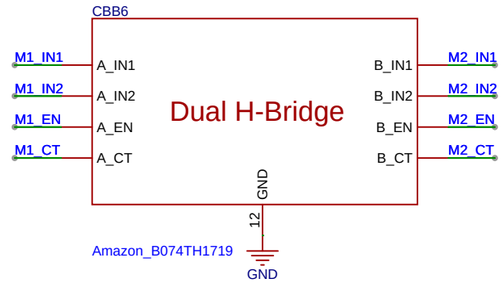


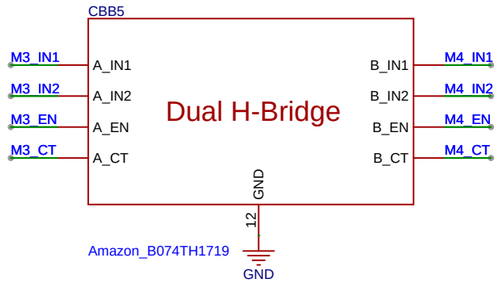


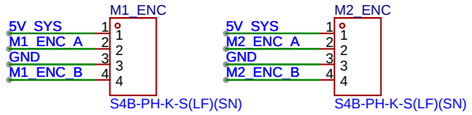


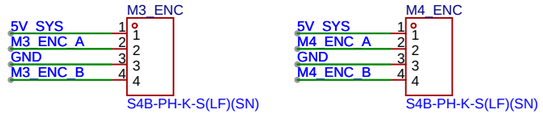


Steppers and Limit Switches

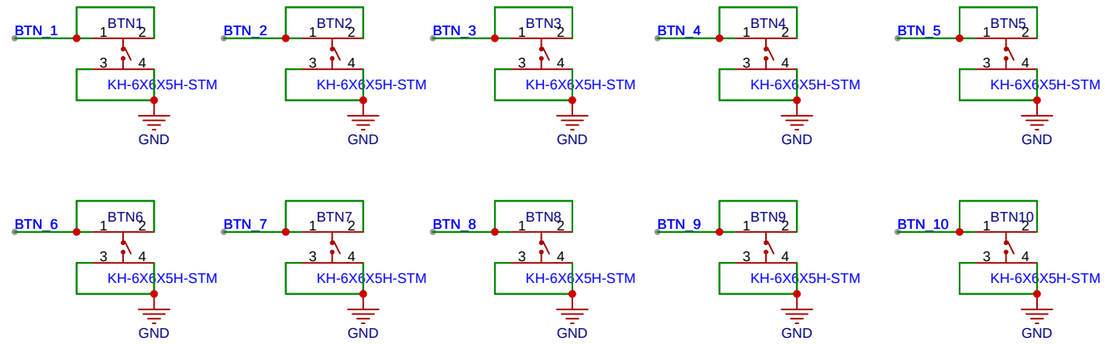




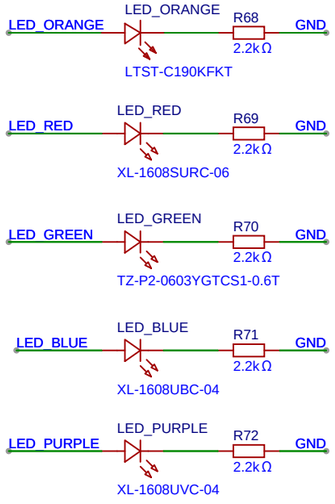


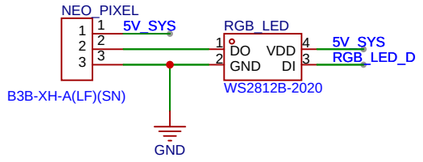


H-Bridges

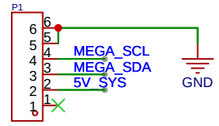


User Buttons

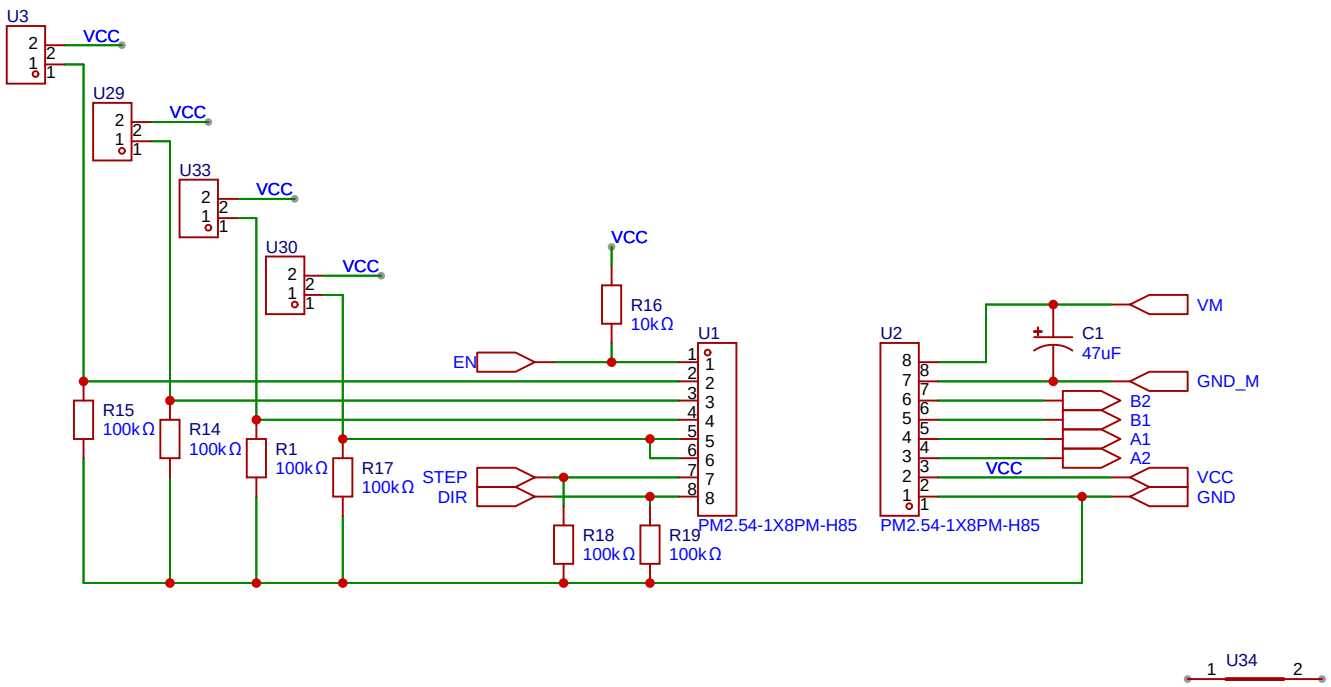




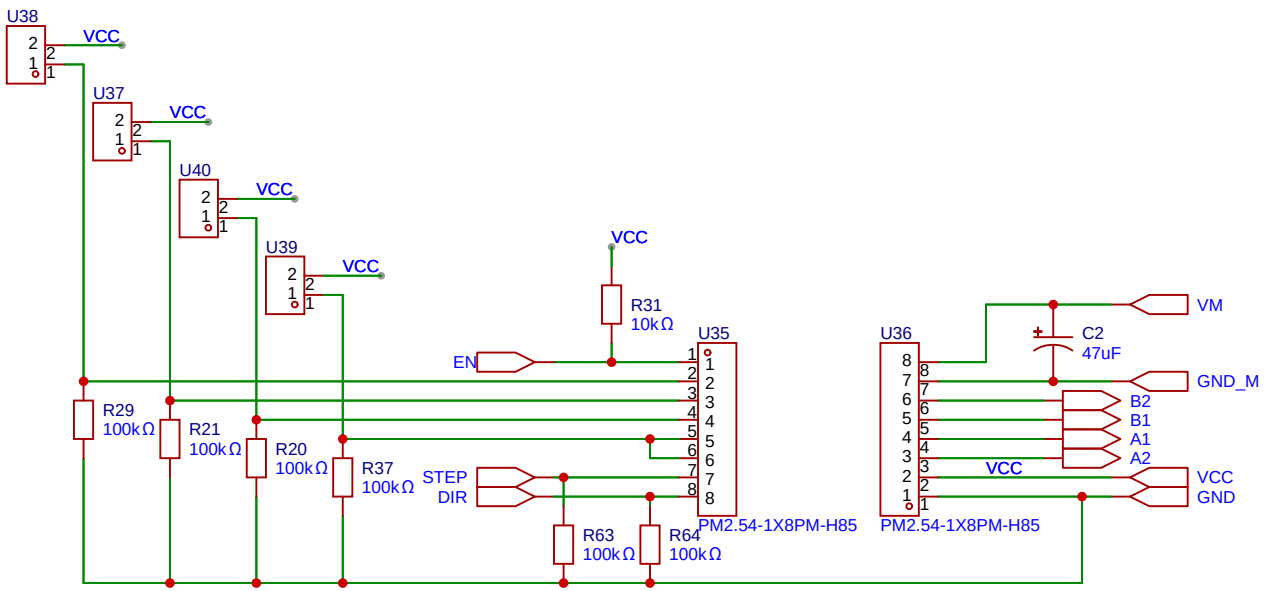
LEDs



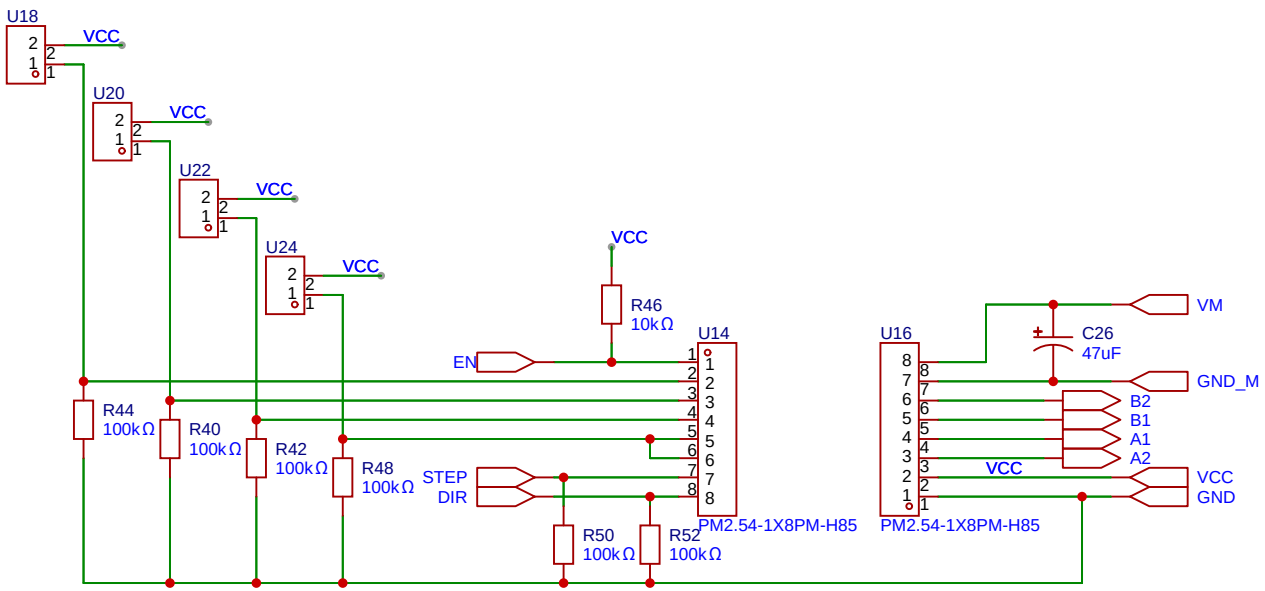
PCA9685



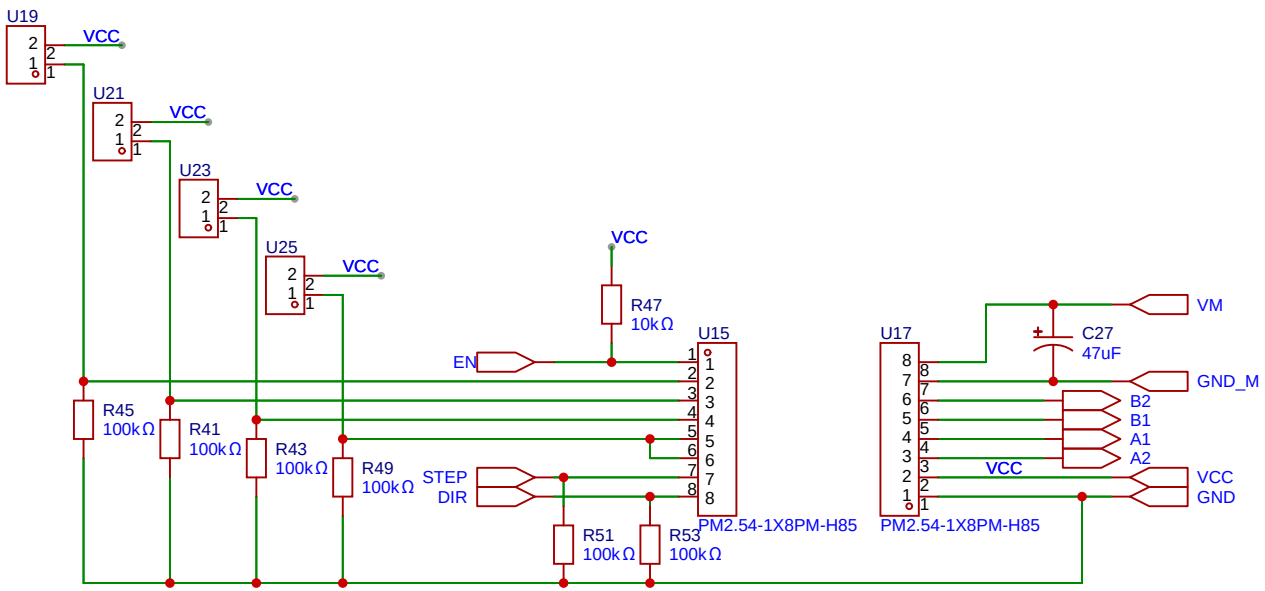
Schematic	StepperDrive	Create at	2025-12-17
		Update at	2025-12-16
Board	StepperDrive	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com



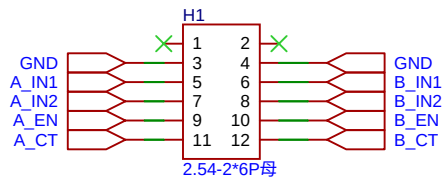
Schematic	StepperDrive	Create at	2025-12-17
		Update at	2025-12-16
Board	StepperDrive	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com



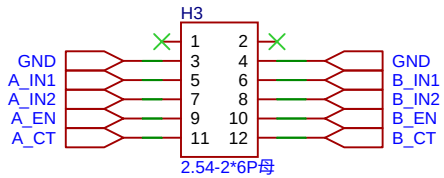
Schematic	StepperDrive	Create at	2025-12-17
		Update at	2025-12-16
Board	StepperDrive	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com



Schematic	StepperDrive	Create at	2025-12-17
		Update at	2025-12-16
Board	StepperDrive	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com



Schematic	Amazon_B074TH1719	Create at	2025-12-17
		Update at	2025-12-17
Board	Amazon_B074TH1719	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com



Schematic	Amazon_B074TH1719	Create at	2025-12-17
		Update at	2025-12-17
Board	Amazon_B074TH1719	Page	P1
Drawn		162 Carrier Board	
Reviewed			
		Version	Size	Page 1 Total 1
EasyEDA		V1.0	A4	EasyEDA.com