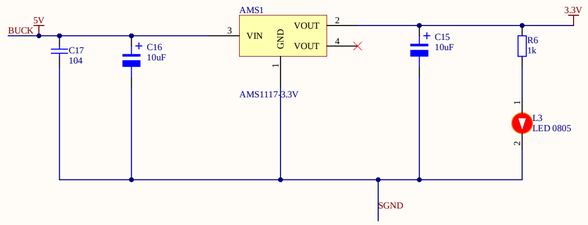
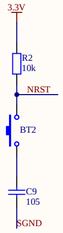
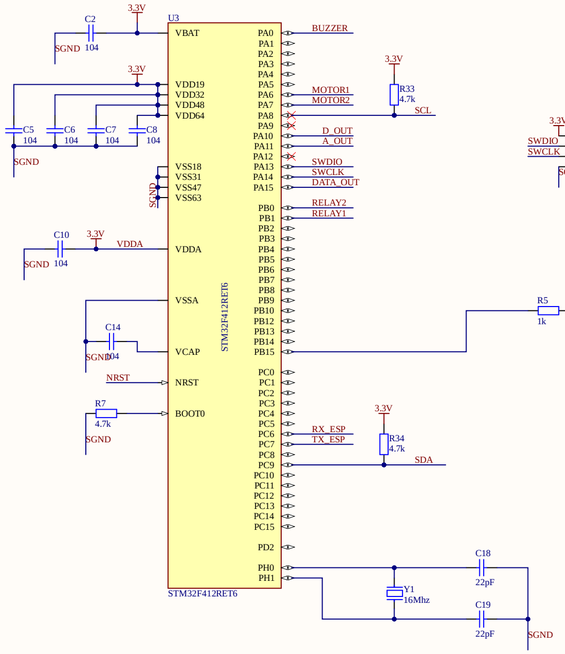
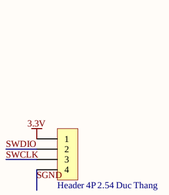

KF1
CON 2 KF301
D1
P6KE33A
C3
470uF
PGND
U2
ON/OFF
FB
VIN
OUT
GND
GND
LM2596S-ADJ/NOPB
L1
CDRH127/LDNP-470MC
D2
SS34
C4
EEETC1V221UV
BUCK
5V
R3
1k
VR1
100R
C11
08055C103K4T2A


KF2
LGND
VIN
CON 2 KF301

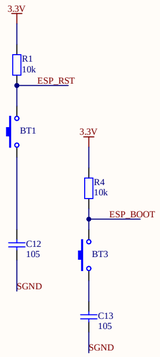

BUCK
5V
C17
104
C16
10uF
AMS1
VIN
GND
VOUT
VOUT
AMS1117-3.3V
C15
10uF
3.3V
R6
1k
L3
LED 0805
SGND

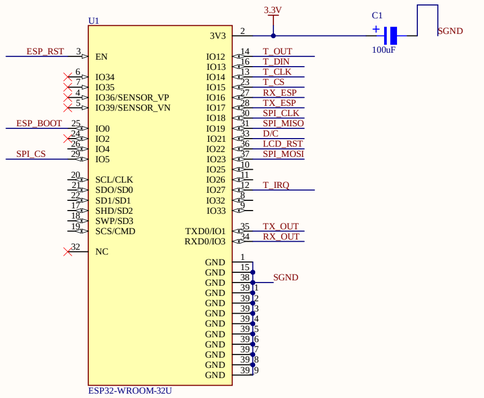

3.3V
R2
10k
NRST
BT2
C9
105
SGND

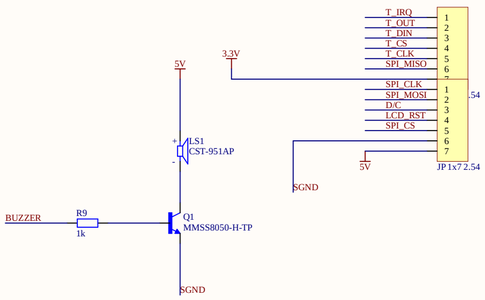

C2
104
3.3V
SGND
U3
VBAT
VDD19
VDD32
VDD48
VDD64
VSS18
VSS31
VSS47
VSS63
VDDA
VSSA
VCAP
NRST
BOOT0
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB12
PB13
PB14
PB15
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14
PC15
PD2
PH0
PH1
STM32F412RET6
BUZZER
MOTOR1
MOTOR2
D_OUT
A_OUT
SWDIO
SWCLK
DATA_OUT
RELAY2
RELAY1
RX_ESP
TX_ESP
SDA
SCL
C5
104
C6
104
C7
104
C8
104
C10
104
C14
104
R7
4.7k
R33
4.7k
R34
4.7k
C18
22pF
C19
22pF
Y1
16Mhz

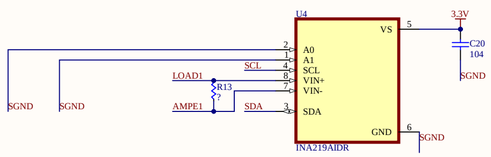

3.3V
SWDIO
SWCLK
SGND
Header 4P 2.54 Duc Thang

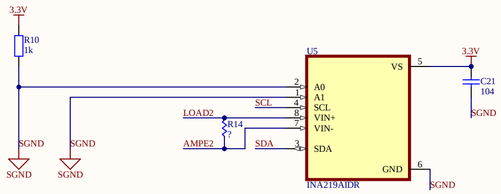
R5
1k
L2
LED 0805
SGND

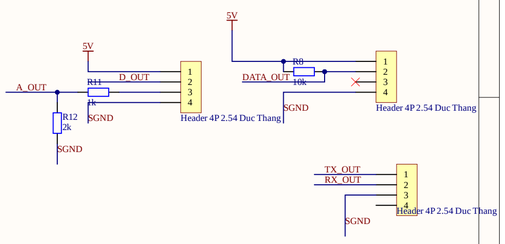

3.3V
R1
10k
ESP_RST
BT1
C12
105
SGND
3.3V
R4
10k
ESP_BOOT
BT3
C13
105
SGND

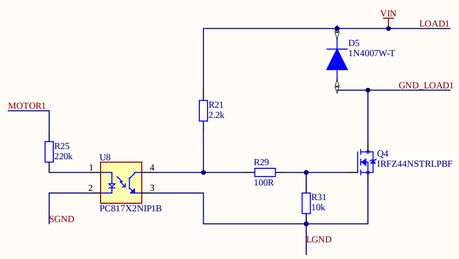

U1
3V3
EN
IO12
IO13
IO14
IO15
IO16
IO17
IO18
IO19
IO21
IO22
IO23
IO25
IO26
IO27
IO32
IO33
TXD0/IO1
RXD0/IO3
NC
IO34
IO35
IO36/SENSOR_VP
IO39/SENSOR_VN
IO0
IO2
IO4
IO5
SCL/CLK
SDO/SD0
SD1/SD1
SHD/SD2
SWP/SD3
SCS/CMD
GND
ESP_RST
ESP_BOOT
SPI_CS
T_OUT
T_DIN
T_CLK
T_CS
RX_ESP
TX_ESP
SPI_CLK
SPI_MISO
D/C
LCD_RST
SPI_MOSI
T_IRQ
RX_OUT
SGND
3.3V
C1
100uF
ESP32-WROOM-32U

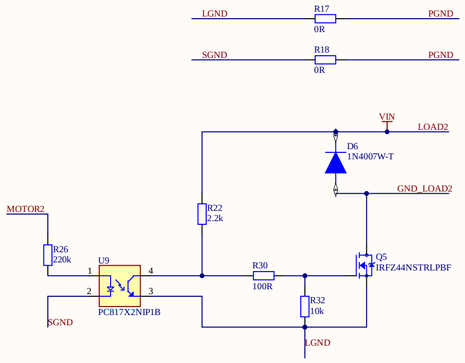

T_IRQ
T_OUT
T_DIN
T_CLK
T_CS
SPI_MISO
SPI_CLK
SPI_MOSI
D/C
LCD_RST
SPI_CS
JP 1x7 2.54
5V
3.3V
SGND
LS1
CST-951AP
BUZZER
R9
1k
Q1
MMSS8050-H-TP

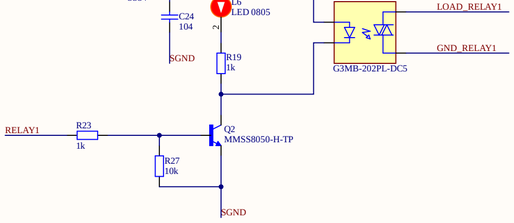

U4
VS
A0
A1
SCL
VIN+
VIN-
SDA
GND
INA219AIDR
3.3V
C20
104
SGND
LOAD1
R13
AMPE1
SDA
SCL

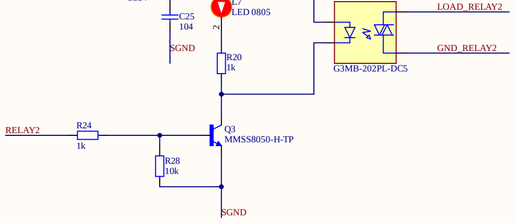

R10
1k
3.3V
SGND
U5
VS
A0
A1
SCL
VIN+
VIN-
SDA
GND
INA219AIDR
C21
104
LOAD2
R14
AMPE2
SDA
SCL


5V
R8
10k
DATA_OUT
A_OUT
D_OUT
R11
R12
2k
SGND
Header 4P 2.54 Duc Thang
TX_OUT
RX_OUT
Header 4P 2.54 Duc Thang


VIN
LOAD1
D5
1N4007W-T
GND_LOAD1
MOTOR1
R21
2.2k
R25
220k
U8
R29
100R
Q4
IRFZ44NSTRLPBF
R31
10k
PC817X2NIP1B
SGND
LGND


LGND
R17
0R
PGND
SGND
R18
0R
PGND
VIN
LOAD2
D6
1N4007W-T
GND_LOAD2
MOTOR2
R22
2.2k
R26
220k
U9
R30
100R
Q5
IRFZ44NSTRLPBF
R32
10k
PC817X2NIP1B
SGND
LGND


BUCK
D3
SS34
C24
104
L6
LED 0805
K1
LOAD_RELAY1
GND_RELAY1
G3MB-202PL-DC5
R19
1k
RELAY1
R23
1k
Q2
MMSS8050-H-TP
R27
10k
SGND


BUCK
D4
SS34
C25
104
L7
LED 0805
K2
LOAD_RELAY2
GND_RELAY2
G3MB-202PL-DC5
R20
1k
RELAY2
R24
1k
Q3
MMSS8050-H-TP
R28
10k
SGND


AMPE2
GND_LOAD2
AMPE1
GND_LOAD1
P2
LOAD_RELAY1
GND_RELAY1
LOAD_RELAY2
GND_RELAY2
CON 4 EDG5.08