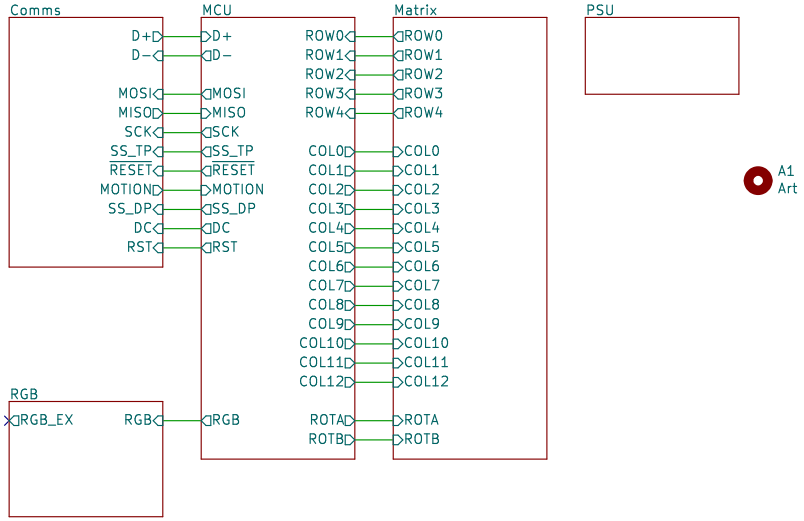
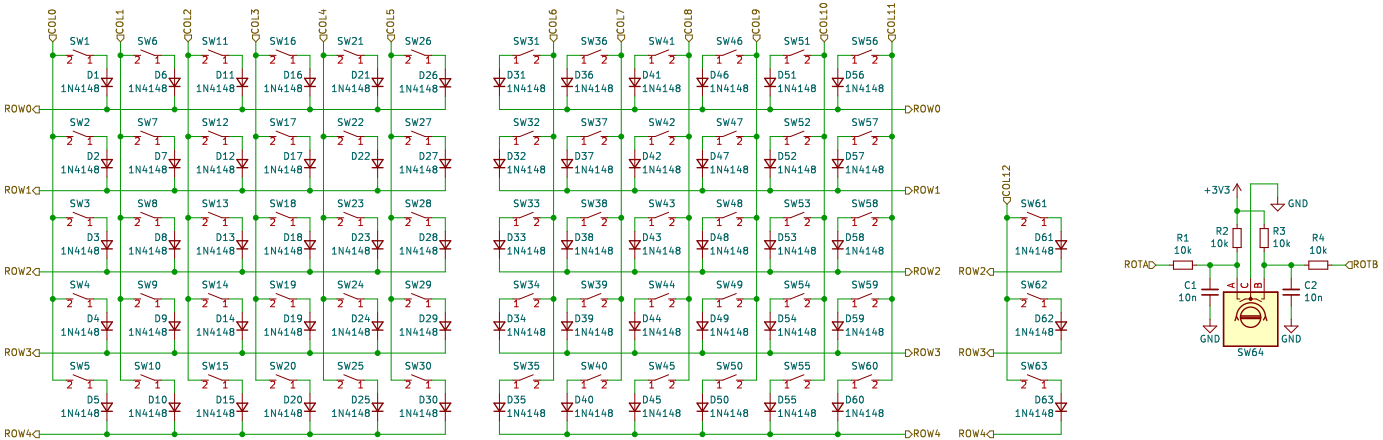
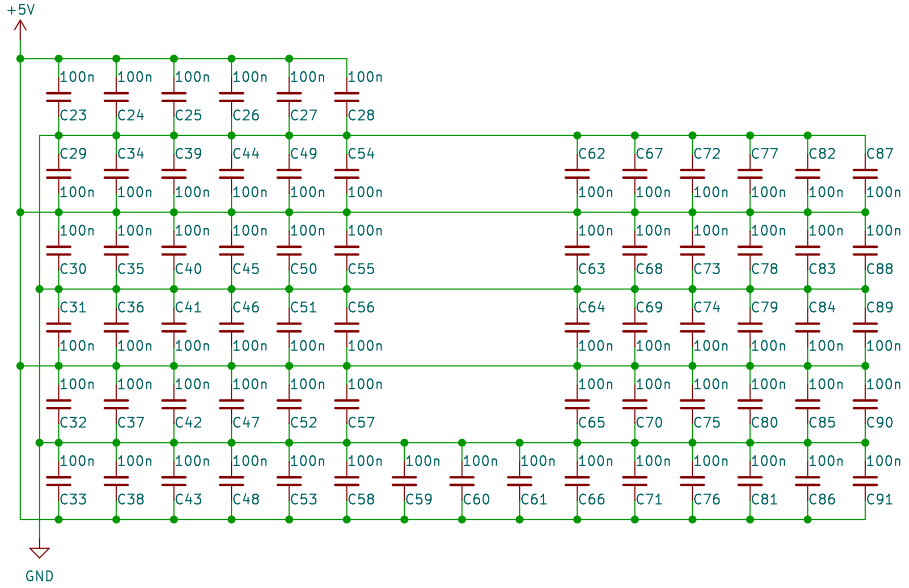
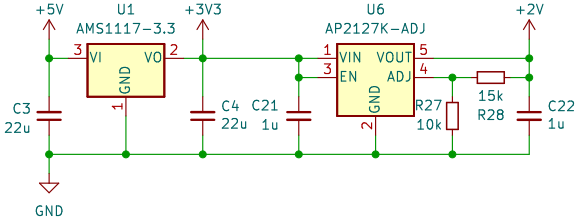
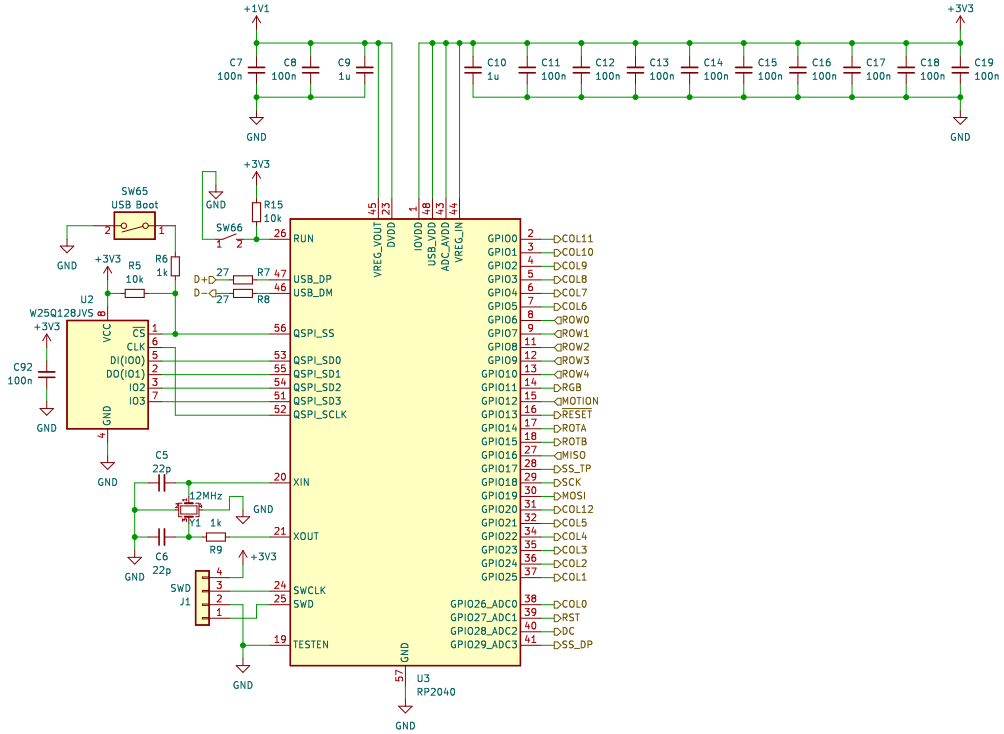
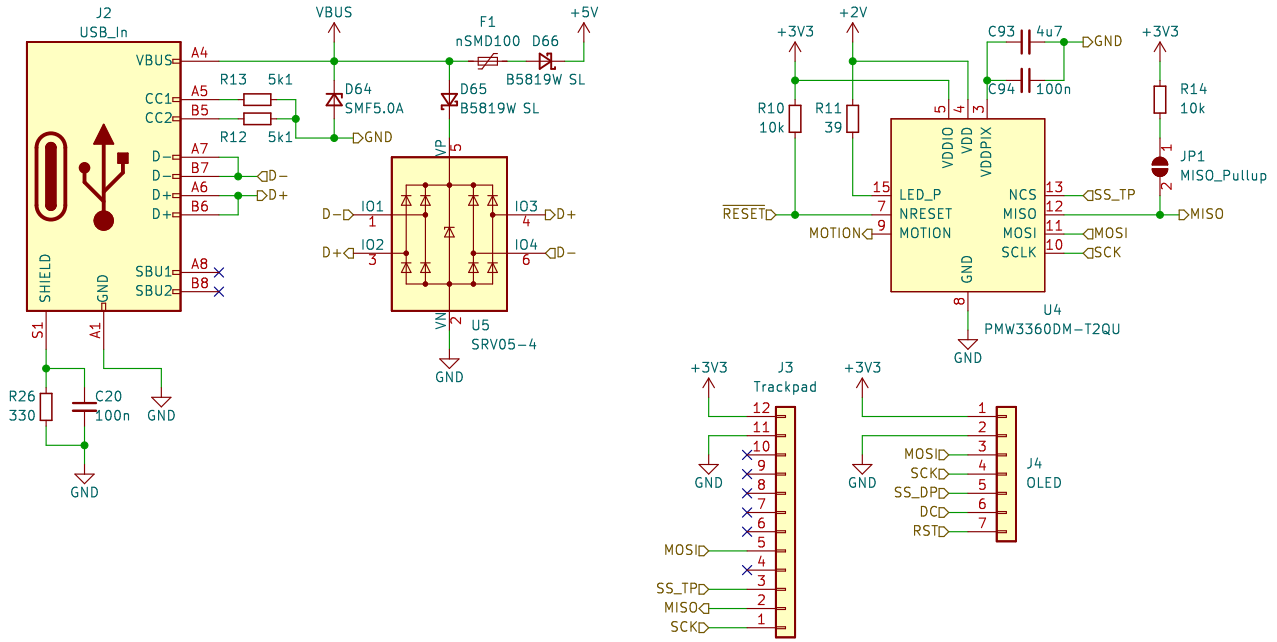

Comms
D+
D−
MOSI
MISO
SCK
SS_TP
RESET
MOTION
SS_DP
DC
RST
MCU
D+
D−
MOSI
MISO
SCK
SS_TP
RESET
MOTION
SS_DP
DC
RST
RGB
ROW0
ROW1
ROW2
ROW3
ROW4
COL0
COL1
COL2
COL3
COL4
COL5
COL6
COL7
COL8
COL9
COL10
COL11
COL12
ROTA
ROTB
Matrix
ROW0
ROW1
ROW2
ROW3
ROW4
COL0
COL1
COL2
COL3
COL4
COL5
COL6
COL7
COL8
COL9
COL10
COL11
COL12
ROTA
ROTB
PSU
RGB
RGB_EX
RGB
A1
Art

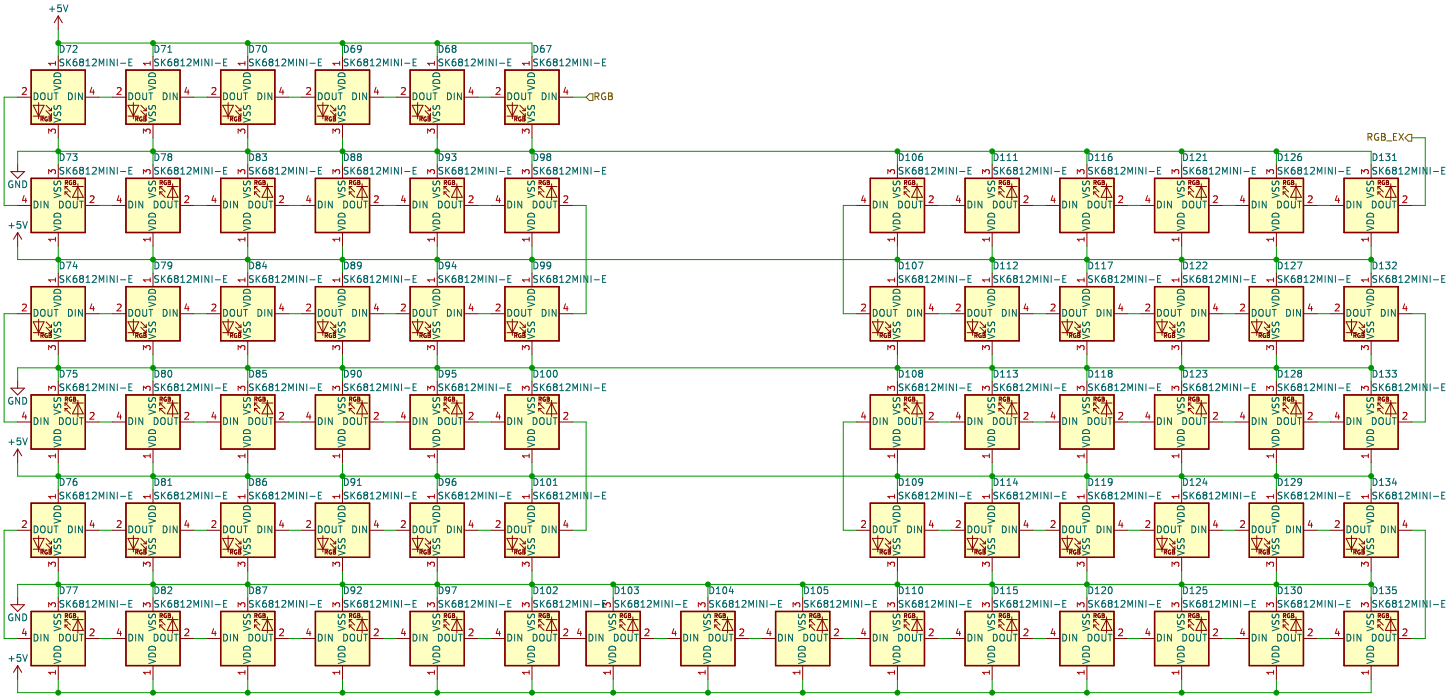

COL0
COL1
COL2
COL3
COL4
COL5
COL6
COL7
COL8
COL9
COL10
COL11
COL12
ROW0
ROW1
ROW2
ROW3
ROW4
SW1 SW6 SW11 SW16 SW21 SW26
SW2 SW7 SW12 SW17 SW22 SW27
SW3 SW8 SW13 SW18 SW23 SW28
SW4 SW9 SW14 SW19 SW24 SW29
SW5 SW10 SW15 SW20 SW25 SW30
SW31 SW36 SW41 SW46 SW51 SW56
SW32 SW37 SW42 SW47 SW52 SW57
SW33 SW38 SW43 SW48 SW53 SW58
SW34 SW39 SW44 SW49 SW54 SW59
SW35 SW40 SW45 SW50 SW55 SW60
SW61 SW62 SW63
D1 D6 D11 D16 D21 D26
D2 D7 D12 D17 D22 D27
D3 D8 D13 D18 D23 D28
D4 D9 D14 D19 D24 D29
D5 D10 D15 D20 D25 D30
D31 D36 D41 D46 D51 D56
D32 D37 D42 D47 D52 D57
D33 D38 D43 D48 D53 D58
D34 D39 D44 D49 D54 D59
D35 D40 D45 D50 D55 D60
D61 D62 D63
1N4148
+3V3
GND
R1 10k
R2 10k
R3 10k
R4 10k
ROTA
ROTB
C1 10n
C2 10n
A
C
B
SW64


+5V
100n
C23
C24
C25
C26
C27
C28
C29
C34
C39
C44
C49
C54
C62
C67
C72
C77
C82
C87
C30
C35
C40
C45
C50
C55
C63
C68
C73
C78
C83
C88
C31
C36
C41
C46
C51
C56
C64
C69
C74
C79
C84
C89
C32
C37
C42
C47
C52
C57
C65
C70
C75
C80
C85
C90
C33
C38
C43
C48
C53
C58
C59
C60
C61
C66
C71
C76
C81
C86
C91
GND


+5V
U1
AMS1117-3.3
VI
VO
GND
3
2
1
C3
22u
GND
+3V3
C4
22u
C21
1u
U6
AP2127K-ADJ
VIN
VOUT
EN
ADJ
GND
1
3
5
4
2
R27
10k
15k
R28
+2V
C22
1u


+1V1
C7 100n
C8 100n
C9 1u
GND
+3V3
C10 1u
C11 100n
C12 100n
C13 100n
C14 100n
C15 100n
C16 100n
C17 100n
C18 100n
C19 100n
SW65
USB Boot
R15 10k
SW66
R5 10k
R6 1k
U2
W25Q128JVS
C92 100n
D+
D-
R7 27
R8 27
VREG_VOUT 45
DVDD 23
IOVDD 1
USB_VDD 48
ADC_AVDD 43
VREG_IN 44
RUN 26
USB_DP 47
USB_DM 46
QSPI_SS 56
QSPI_SD0 53
QSPI_SD1 55
QSPI_SD2 54
QSPI_SD3 51
QSPI_SCLK 52
XIN 20
XOUT 21
SWCLK 24
SWD 25
TESTEN 19
GND 57
U3
RP2040
VCC
CS
CLK
DI(IO0)
DO(IO1)
IO2
IO3
C5 22p
12MHz
Y1 1k
R9
C6 22p
SWD
J1
GPIO0 2 COL11
GPIO1 3 COL10
GPIO2 4 COL9
GPIO3 5 COL8
GPIO4 6 COL7
GPIO5 7 COL6
GPIO6 8 ROW0
GPIO7 9 ROW1
GPIO8 11 ROW2
GPIO9 12 ROW3
GPIO10 13 ROW4
GPIO11 14 RGB
GPIO12 15 MOTION
GPIO13 16 RESET
GPIO14 17 ROTA
GPIO15 18 ROTB
GPIO16 27 MISO
GPIO17 28 SS_TP
GPIO18 29 SCK
GPIO19 30 MOSI
GPIO20 31 COL12
GPIO21 32 COL5
GPIO22 34 COL4
GPIO23 35 COL3
GPIO24 36 COL2
GPIO25 37 COL1
GPIO26_ADC0 38 COL0
GPIO27_ADC1 39 RST
GPIO28_ADC2 40 DC
GPIO29_ADC3 41 SS_DP


J2
USB_In
VBUS
A4
CC1
A5
CC2
B5
D−
A7
B7
D+
A6
B6
SBU1
A8
SBU2
B8
SHIELD
GND
S1
A1
R13 5k1
R12 5k1
VBUS
D64
SMF5.0A
GND
F1
nSMD100
D66
B5819W SL
+5V
D65
B5819W SL
VP
VN
IO1
IO2
IO3
IO4
U5
SRV05−4
R26
330
C20
100n
GND
+3V3
+2V
R10
10k
R11
39
C93 4u7
C94 100n
VDDIO
VDD
VDDPIX
LED_P
NRESET
MOTION
NCS
MISO
MOSI
SCLK
RESET
U4
PMW3360DM−T2QU
R14
10k
JP1
MISO_Pullup
SS_TP
J3
Trackpad
J4
OLED
SS_DP
DC
RST


+5V
GND
RGB
RGB_EX
D67 D68 D69 D70 D71 D72
D73 D78 D83 D88 D93 D98
D74 D79 D84 D89 D94 D99
D75 D80 D85 D90 D95 D100
D76 D81 D86 D91 D96 D101
D77 D82 D87 D92 D97 D102 D103 D104 D105
D106 D111 D116 D121 D126 D131
D107 D112 D117 D122 D127 D132
D108 D113 D118 D123 D128 D133
D109 D114 D119 D124 D129 D134
D110 D115 D120 D125 D130 D135
SK6812MINI-E
DIN DOUT VDD VSS