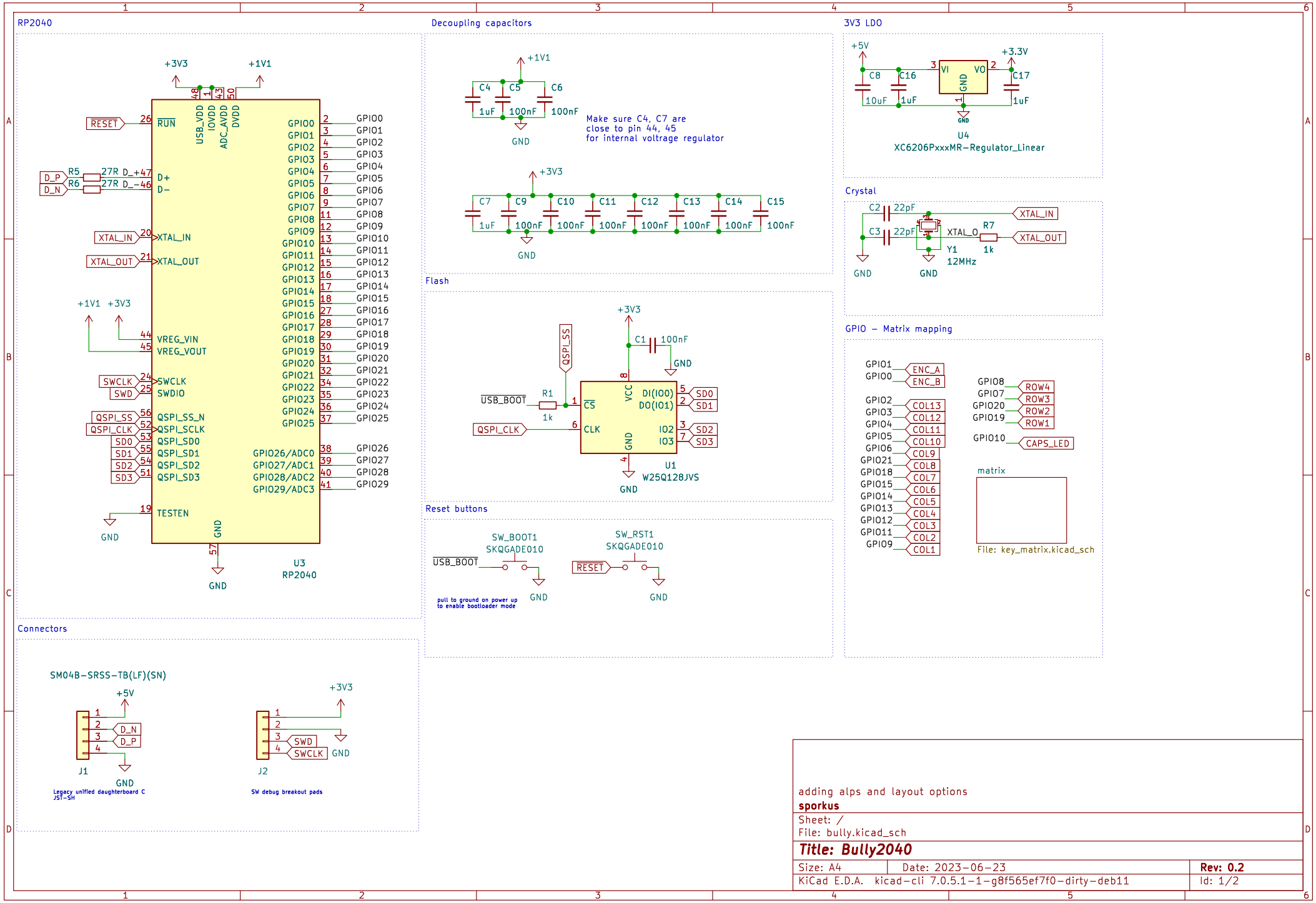
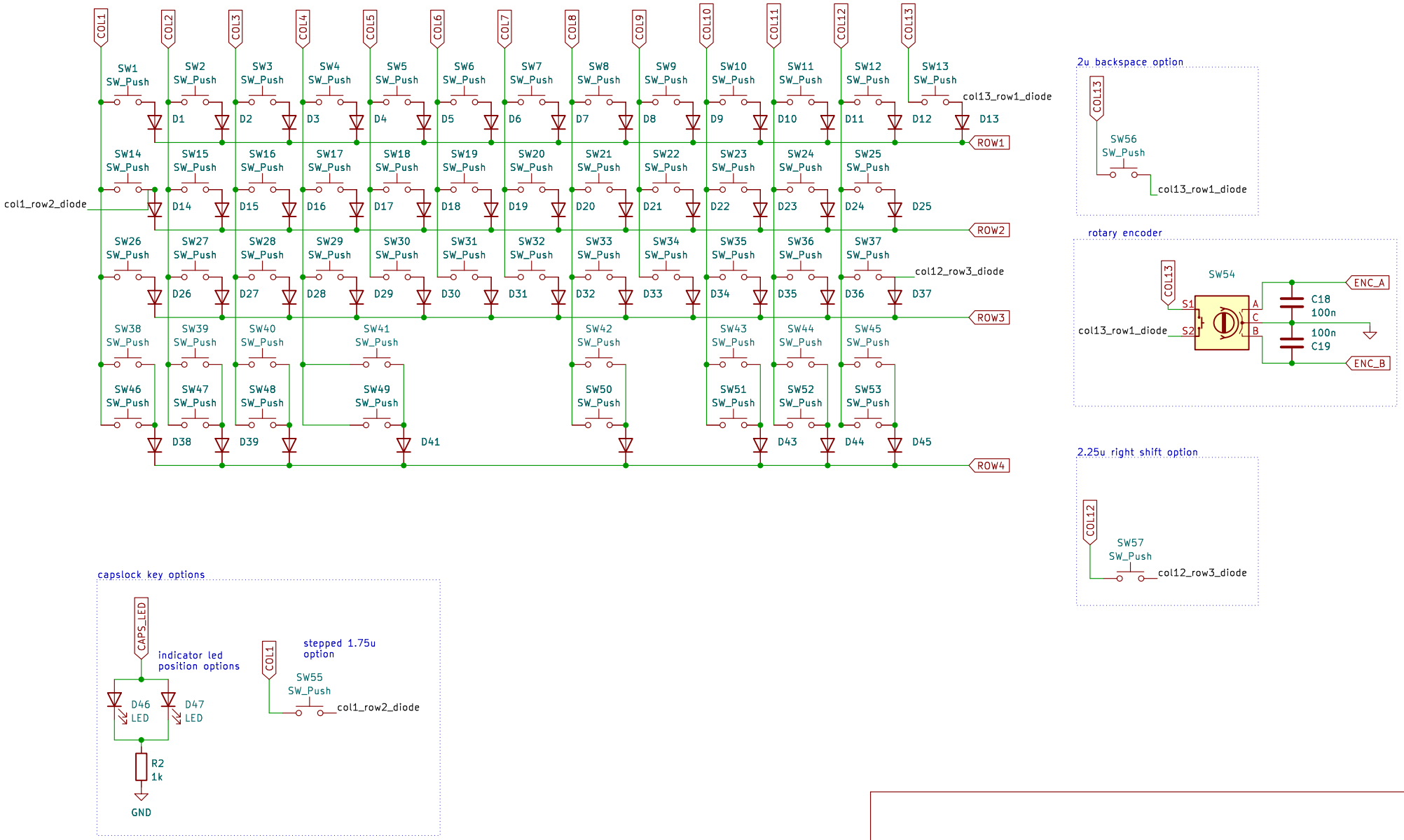

RP2040
+3V3
+1V1
RESET
RUN
USB_VDD
IOVDD
ADC_AVDD
DVDD
D_P
D_N
R5
R6
27R
D_+
D_-
D+
D-
XTAL_IN
XTAL_OUT
VREG_VIN
VREG_VOUT
SWCLK
SWD
SWDIO
QSPI_SS
QSPI_CLK
QSPI_SS_N
QSPI_SCLK
QSPI_SD0
QSPI_SD1
QSPI_SD2
QSPI_SD3
SD0
SD1
SD2
SD3
TESTEN
GND
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
GPIO9
GPIO10
GPIO11
GPIO12
GPIO13
GPIO14
GPIO15
GPIO16
GPIO17
GPIO18
GPIO19
GPIO20
GPIO21
GPIO22
GPIO23
GPIO24
GPIO25
GPIO26/ADC0
GPIO27/ADC1
GPIO28/ADC2
GPIO29/ADC3
U3
RP2040
Decoupling capacitors
+1V1
C4
C5
C6
1uF
100nF
100nF
GND
Make sure C4, C7 are
close to pin 44, 45
for internal voltrage regulator
+3V3
C7
C9
C10
C11
C12
C13
C14
C15
1uF
100nF
100nF
100nF
100nF
100nF
100nF
100nF
GND
Flash
+3V3
QSPI_SS
C1
100nF
GND
USB_BOOT
R1
1k
QSPI_CLK
CS
CLK
VCC
GND
DI(IO0)
DO(IO1)
IO2
IO3
SD0
SD1
SD2
SD3
U1
W25Q128JVS
GND
Reset buttons
SW_BOOT1
SKQGADE010
USB_BOOT
GND
pull to ground on power up
to enable bootloader mode
SW_RST1
SKQGADE010
RESET
GND
3V3 LDO
+5V
C8
C16
10uF
1uF
VI
VO
GND
+3.3V
C17
1uF
GND
U4
XC6206PxxxMR-Regulator_Linear
Crystal
C2
22pF
C3
22pF
XTAL_IN
XTAL_O
R7
1k
XTAL_OUT
Y1
12MHz
GND
GND
GPIO - Matrix mapping
GPIO1
GPIO0
ENC_A
ENC_B
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO21
GPIO18
GPIO15
GPIO14
GPIO13
GPIO12
GPIO11
GPIO9
COL13
COL12
COL11
COL10
COL9
COL8
COL7
COL6
COL5
COL4
COL3
COL2
COL1
GPIO8
GPIO7
GPIO20
GPIO19
ROW4
ROW3
ROW2
ROW1
GPIO10
CAPS_LED
matrix
File: key_matrix.kicad_sch
Connectors
SM04B-SRSS-TB(LF)(SN)
+5V
D_N
D_P
J1
GND
Legacy unified daughterboard C
JST-SH
+3V3
SWD
SWCLK
GND
J2
SW debug breakout pads
adding alps and layout options
sporkus
Sheet: /
File: bully.kicad_sch
Title: Bully2040
Size: A4
Date: 2023-06-23
Rev: 0.2
KiCad E.D.A. kicad-cli 7.0.5.1-1-g8f565ef7f0-dirty-deb11
Id: 1/2




adding alps and layout options

**sporkus**

Sheet: /matrix/

File: key_matrix.kicad_sch

***Title: Bully2040***

| | | |
|---|---|---|
| Size: A4 | Date: 2023-06-23 | **Rev: 0.2** |
| KiCad E.D.A. kicad-cli 7.0.5.1-1-g8f565ef7f0-dirty-deb11 | | Id: 2/2 |