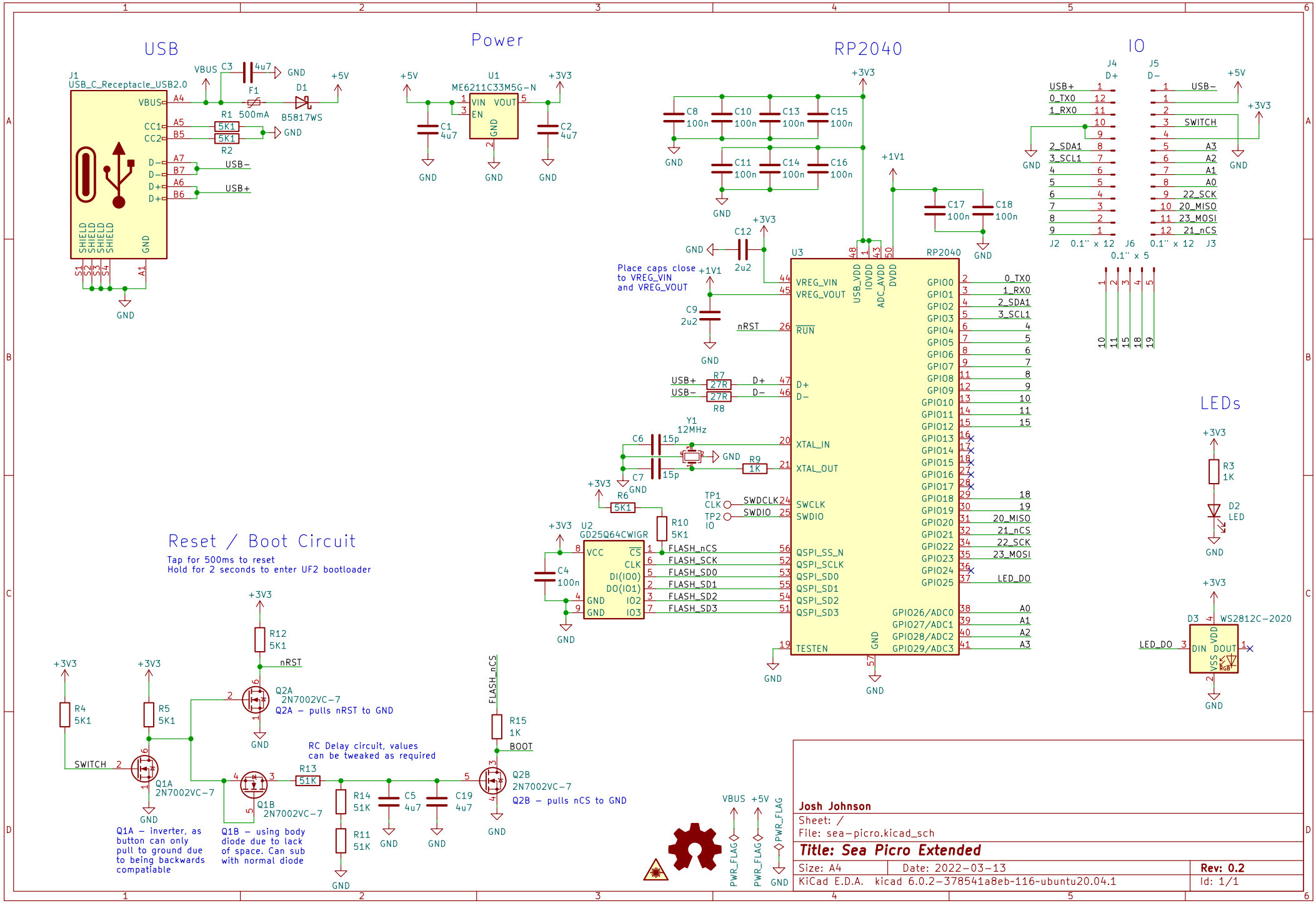
USB
J1
USB_C_Receptacle_USB2.0
VBUS
C3
4u7
GND
+5V
F1
500mA
D1
B5817WS
R1
5K1
R2
5K1
CC1
CC2
A5
B5
A7
B7
A6
B6
USB−
USB+
SHIELD
S1
S2
S3
S4
A1
Power
U1
ME6211C33M5G−N
VIN
VOUT
EN
+3V3
C1
4u7
C2
4u7
RP2040
U3
RP2040
C8
100n
C10
100n
C13
100n
C15
100n
C11
100n
C14
100n
C16
100n
C17
100n
C18
100n
+1V1
C12
2u2
Place caps close to VREG_VIN and VREG_VOUT
C9
2u2
VREG_VIN
VREG_VOUT
USB_VDD
IOVDD
ADC_AVDD
DVDD
nRST
RUN
R7
27R
R8
27R
D+
D−
Y1
12MHz
C6
15p
C7
15p
R9
1K
XTAL_IN
XTAL_OUT
R6
5K1
R10
5K1
TP1
CLK
TP2
IO
SWDCLK
SWDIO
SWCLK
U2
GD25Q64CWIGR
VCC
CS
CLK
DI(IO0)
DO(IO1)
IO2
IO3
C4
100n
FLASH_nCS
FLASH_SCK
FLASH_SD0
FLASH_SD1
FLASH_SD2
FLASH_SD3
QSPI_SS_N
QSPI_SCLK
QSPI_SD0
QSPI_SD1
QSPI_SD2
QSPI_SD3
TESTEN
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
0_TX0
1_RX0
2_SDA1
3_SCL1
20_MISO
21_nCS
22_SCK
23_MOSI
LED_DO
A0
A1
A2
A3
IO
J4
D+
J5
D−
USB+
USB−
SWITCH
J2 0.1" x 12
J6 0.1" x 12
J3
0.1" x 5
LEDs
R3
1K
D2
LED
D3
WS2812C−2020
VDD
DIN
DOUT
VSS
Reset / Boot Circuit
Tap for 500ms to reset
Hold for 2 seconds to enter UF2 bootloader
R12
5K1
R4
5K1
R5
5K1
Q2A
2N7002VC−7
Q2A − pulls nRST to GND
Q1A
2N7002VC−7
Q1B
2N7002VC−7
RC Delay circuit, values can be tweaked as required
R13
51K
R14
51K
R11
51K
C5
4u7
C19
4u7
R15
1K
BOOT
Q2B
2N7002VC−7
Q2B − pulls nCS to GND
Q1A − inverter, as button can only pull to ground due to being backwards compatiable
Q1B − using body diode due to lack of space. Can sub with normal diode
PWR_FLAG
Josh Johnson
Sheet: /
File: sea−picro.kicad_sch
Title: Sea Picro Extended
Size: A4
Date: 2022−03−13
Rev: 0.2
KiCad E.D.A. kicad 6.0.2−378541a8eb−116−ubuntu20.04.1
Id: 1/1