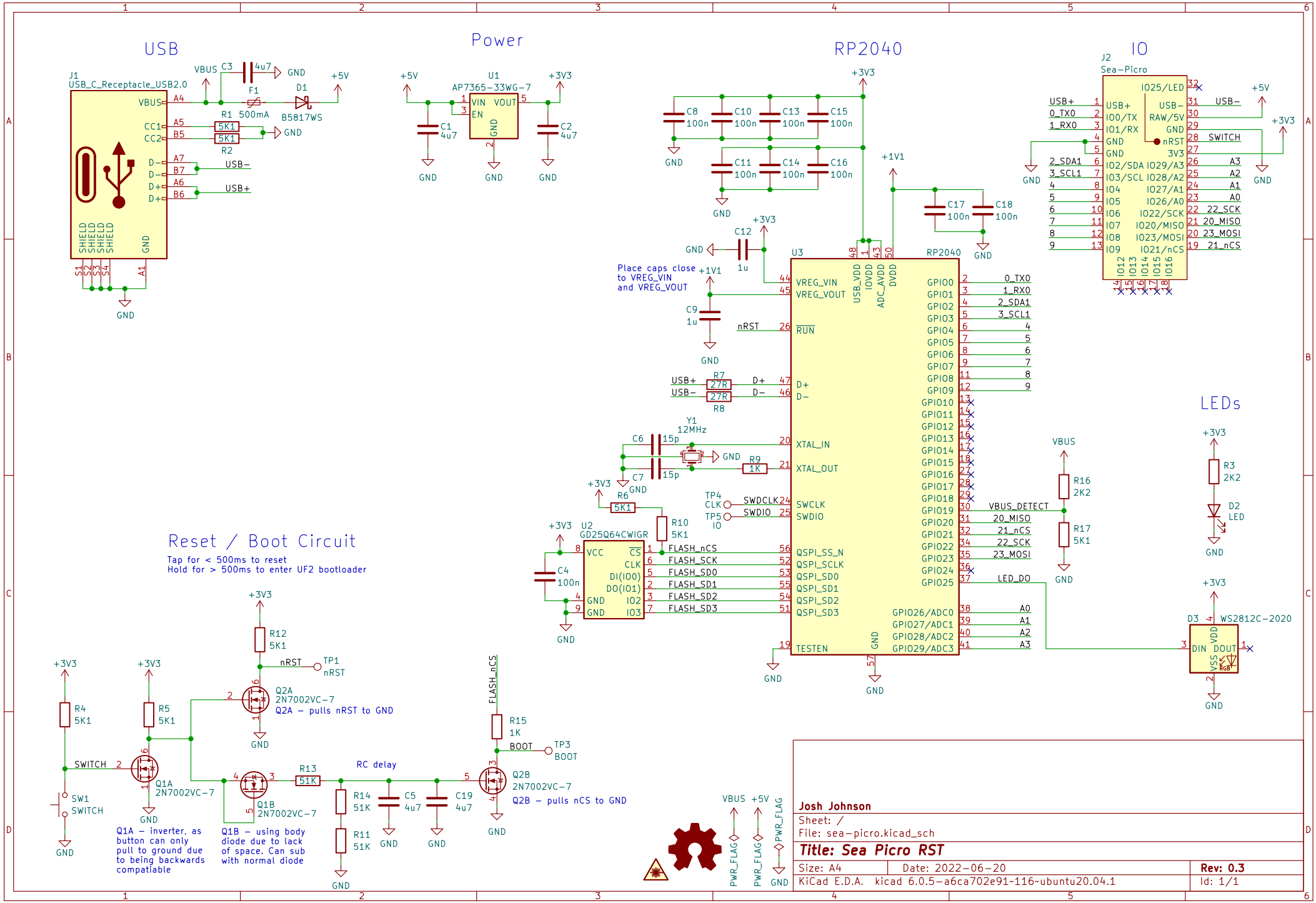
USB
J1
USB_C_Receptacle_USB2.0
VBUS
C3
4u7
GND
+5V
F1
500mA
D1
B5817WS
R1
5K1
R2
5K1
CC1
CC2
A5
B5
A7
B7
A6
B6
USB-
USB+
SHIELD
S1
S2
S3
S4
A1
Power
U1
AP7365-33WG-7
VIN
VOUT
EN
C1
4u7
C2
4u7
+3V3
RP2040
U3
RP2040
C8
100n
C10
100n
C13
100n
C15
100n
C11
100n
C14
100n
C16
100n
C17
100n
C18
100n
+1V1
C12
1u
Place caps close to VREG_VIN and VREG_VOUT
C9
1u
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
TP4
CLK
TP5
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
VBUS_DETECT
20_MISO
21_nCS
22_SCK
23_MOSI
LED_DO
A0
A1
A2
A3
IO
J2
Sea-Picro
IO25/LED
USB+
IO0/TX
IO1/RX
GND
IO2/SDA
IO3/SCL
IO4
IO5
IO6
IO7
IO8
IO9
USB-
RAW/5V
nRST
3V3
IO29/A3
IO28/A2
IO27/A1
IO26/A0
IO22/SCK
IO20/MISO
IO23/MOSI
IO21/nCS
IO12
IO13
IO14
IO15
IO16
SWITCH
LEDs
R3
2K2
D2
LED
VBUS
R16
2K2
R17
5K1
D3
WS2812C-2020
DIN
DOUT
VDD
VSS
RGB
Reset / Boot Circuit
Tap for < 500ms to reset
Hold for > 500ms to enter UF2 bootloader
R12
5K1
nRST
TP1
nRST
Q2A
2N7002VC-7
Q2A – pulls nRST to GND
R4
5K1
R5
5K1
SWITCH
Q1A
2N7002VC-7
SW1
SWITCH
Q1A – inverter, as button can only pull to ground due to being backwards compatiable
Q1B
2N7002VC-7
Q1B – using body diode due to lack of space. Can sub with normal diode
R13
51K
RC delay
R14
51K
R11
51K
C5
4u7
C19
4u7
FLASH_nCS
R15
1K
BOOT
TP3
BOOT
Q2B
2N7002VC-7
Q2B – pulls nCS to GND
VBUS
+5V
PWR_FLAG
Josh Johnson
Sheet: /
File: sea-picro.kicad_sch
Title: Sea Picro RST
Size: A4
Date: 2022-06-20
Rev: 0.3
KiCad E.D.A. kicad 6.0.5-a6ca702e91~116~ubuntu20.04.1
Id: 1/1