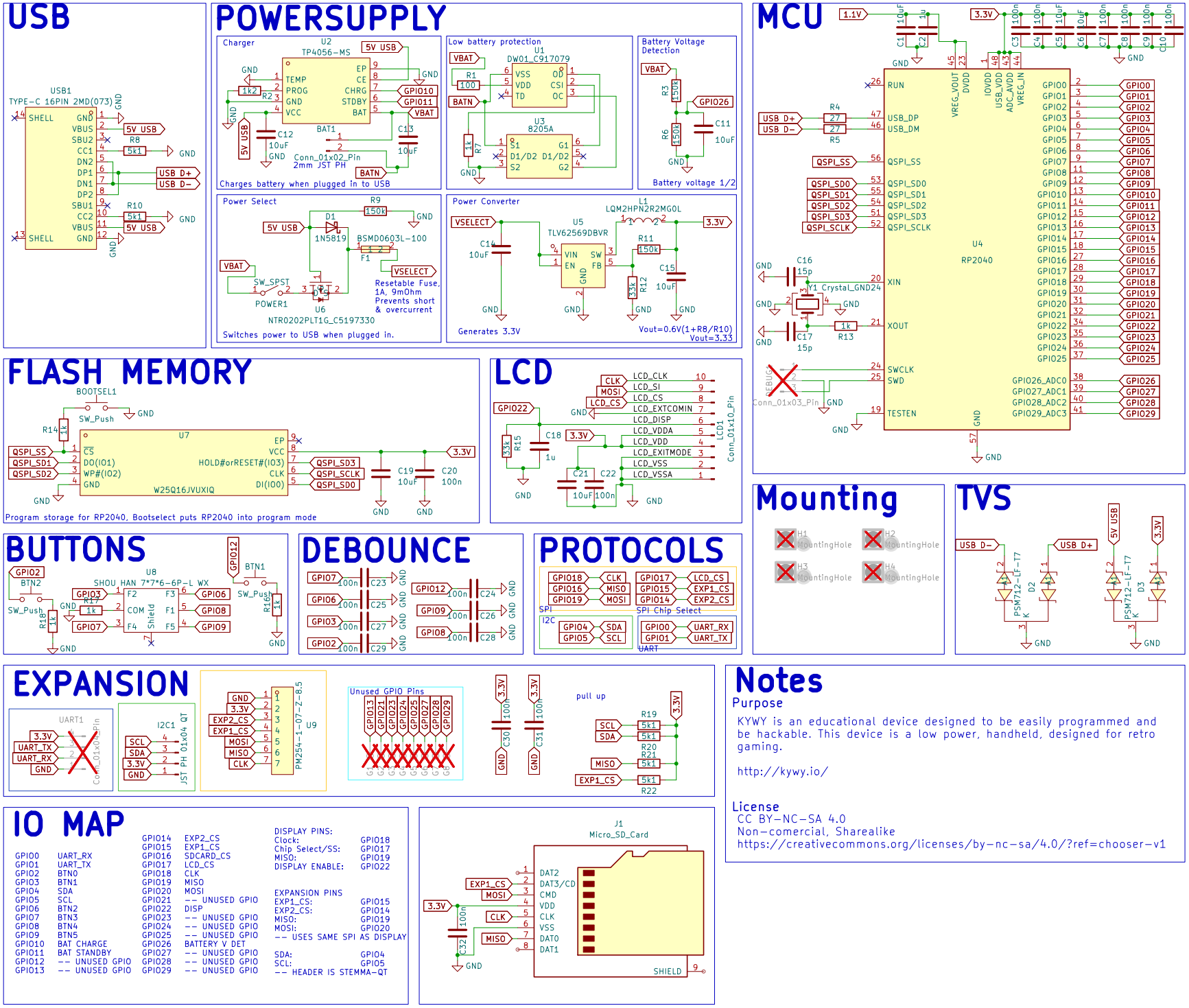
USB
USB1
TYPE-C 16PIN 2MD(073)
POWERSUPPLY
Charger
U2
TP4056-MS
Charges battery when plugged in to USB
Low battery protection
U1
DW01_C917079
U3
8205A
Battery Voltage Detection
Battery voltage 1/2
Power Select
POWER1
NTR0202PLT1G_C5197330
Resetable Fuse, 1A, 9mOhm Prevents short & overcurrent
Switches power to USB when plugged in.
Power Converter
U5
TLV62569DBVR
L1
LQM2HPN2R2MG0L
Generates 3.3V
Vout=0.6V(1+R8/R10)
Vout=3.33
MCU
U4
RP2040
Y1 Crystal_GND24
Conn_01x03_Pin
FLASH MEMORY
BOOTSEL1
U7
W25Q16JVUXIQ
Program storage for RP2040, Bootselect puts RP2040 into program mode
LCD
Conn_01x10_Pin
Mounting
MountingHole
TVS
PSM712-LF-T7
BUTTONS
U8
SHOU HAN 7*7*6-6P-L WX
DEBOUNCE
PROTOCOLS
SPI
SPI Chip Select
I2C
UART
EXPANSION
UART1
I2C1
JST PH 01x04 QT
U9
PM254-1-07-Z-8.5
Unused GPIO Pins
pull up
Notes
Purpose
KYWY is an educational device designed to be easily programmed and be hackable. This device is a low power, handheld, designed for retro gaming.
http://kywy.io/
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IO MAP
GPIO0 UART_RX
GPIO1 UART_TX
GPIO2 BTN0
GPIO3 BTN1
GPIO4 SDA
GPIO5 SCL
GPIO6 BTN2
GPIO7 BTN3
GPIO8 BTN4
GPIO9 BTN5
GPIO10 BAT CHARGE
GPIO11 BAT STANDBY
GPIO12 -- UNUSED GPIO
GPIO13 -- UNUSED GPIO
GPIO14 EXP2_CS
GPIO15 EXP1_CS
GPIO16 SDCARD_CS
GPIO17 LCD_CS
GPIO18 CLK
GPIO19 MISO
GPIO20 MOSI
GPIO21 -- UNUSED GPIO
GPIO22 DISP
GPIO23 -- UNUSED GPIO
GPIO24 -- UNUSED GPIO
GPIO25 -- UNUSED GPIO
GPIO26 BATTERY V DET
GPIO27 -- UNUSED GPIO
GPIO28 -- UNUSED GPIO
GPIO29 -- UNUSED GPIO
DISPLAY PINS:
Clock: GPIO18
Chip Select/SS: GPIO17
MISO: GPIO19
DISPLAY ENABLE: GPIO22
EXPANSION PINS
EXP1_CS: GPIO15
EXP2_CS: GPIO14
MISO: GPIO19
MOSI: GPIO20
-- USES SAME SPI AS DISPLAY
SDA: GPIO4
SCL: GPIO5
-- HEADER IS STEMMA-QT
J1
Micro_SD_Card