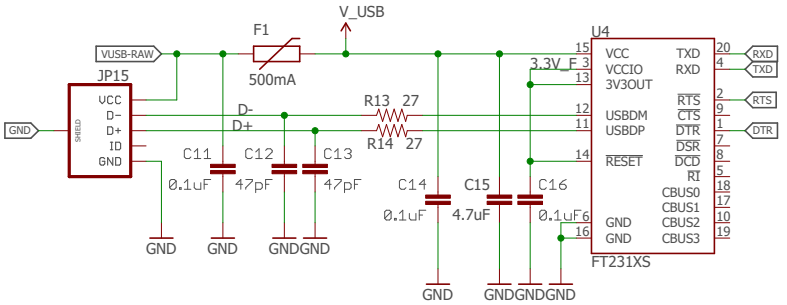
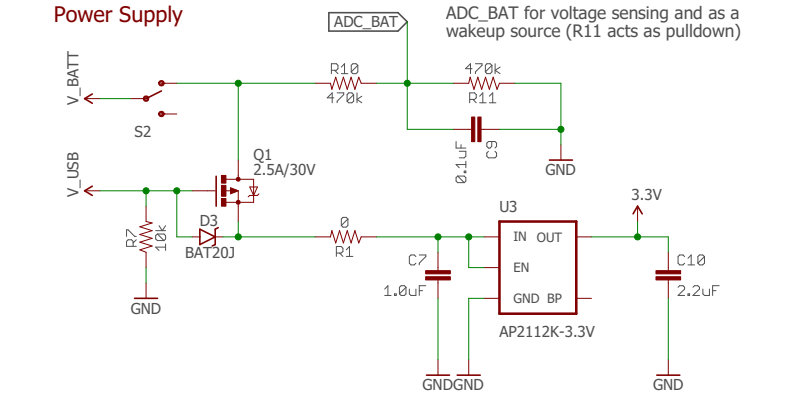
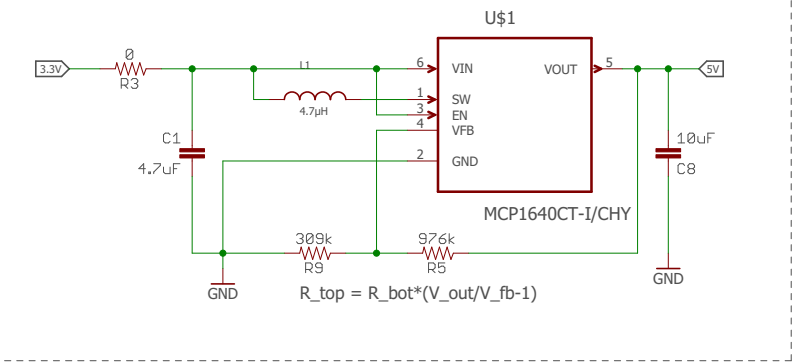
FTDI Adapter



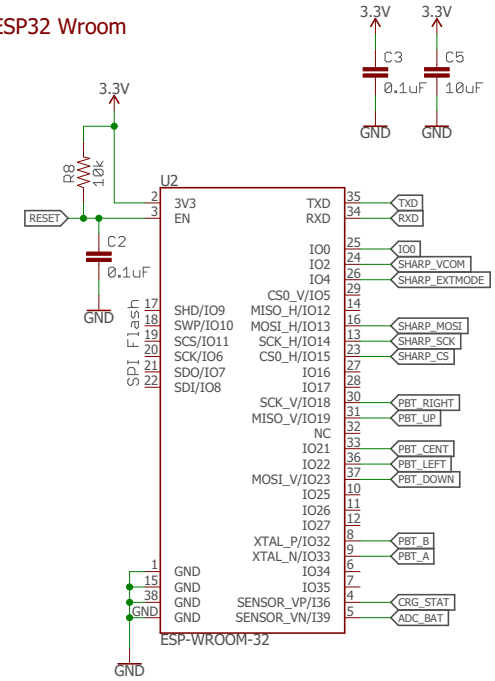
Power Supply



5V Charge Pump for LCD

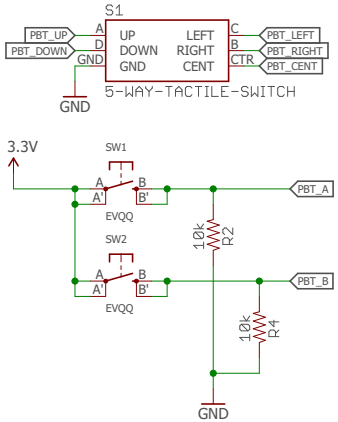


ESP32 Wroom



RTC GPIOs: 0,2,4,12-15,25-27,32-39
usable by ULP, internal Pullups /Pulldowns
ext0 for one pin as wakeup source
ext1 for multiple pins as wakeup source
only for GPIOs: 32-39?
no internal Pullups /Pulldowns

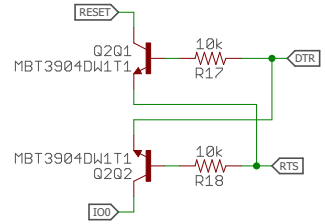
Joystick and Buttons



Boot Mode Configuration

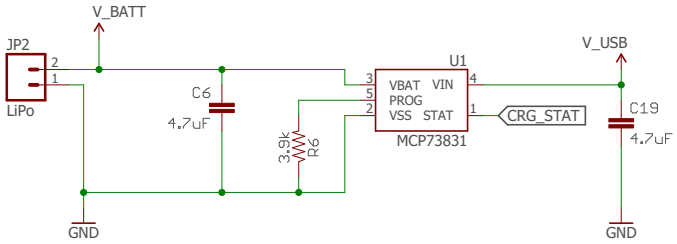
Pin	Default	Boot	Download
GPIO0	1	1	0
U0TXD	1	1	x
GPIO2	0	x	0
GPIO4	0	x	x
MTDO	1	x	x
GPIO5	1	1	x

If U0TXD, GPIO2, GPIO5 are floating,
GPIO0 determines boot mode



If DTR is LOW, toggling RTS from HIGH to LOW resets to run mode.
If RTS is HIGH, toggling DTR from LOW to HIGH resets to bootloader.

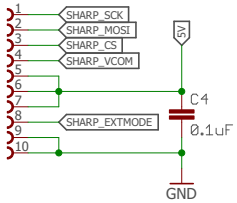
LiPo Charger



Charge current:
I_CHG = 1000 / R_PROG
1000 / 4kOhm = 256mA

STAT	
Shutdown	- High Z
No Battery Present	- High Z
Constant Voltage	- Low
Charge Complete	- High

Sharp Display Connector



Maximilian Kern
09/2019