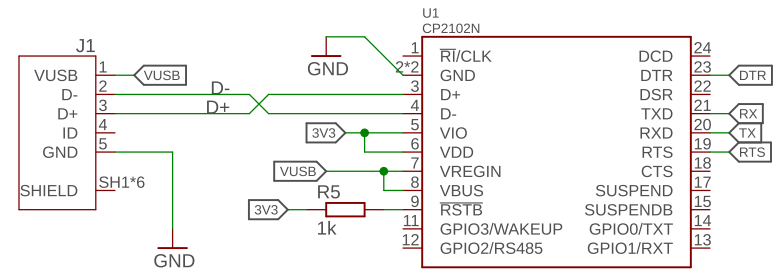
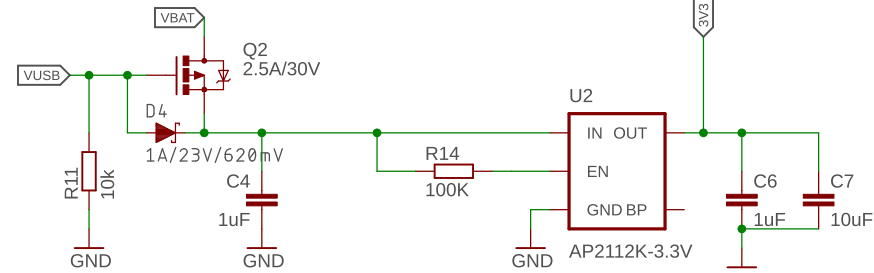


## USB-Serial



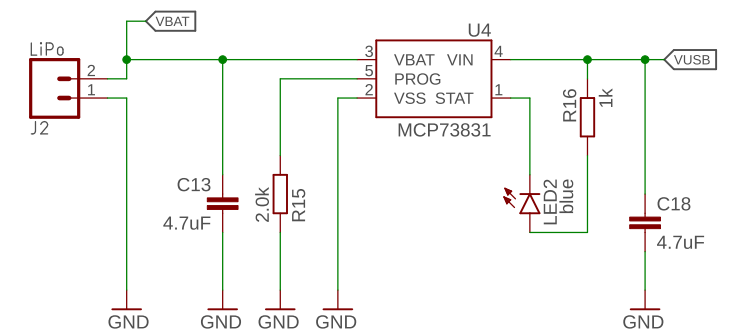
## Voltage Regulator

VUSB: 6V max  
VBAT: 4.2V max (single cell LiPo)  
V-REG: 600mA out, 6V max in



Battery Charger

I-CHG = 1000 / R-PROG  
with R-PROG=2k >> I-CHG=500mA



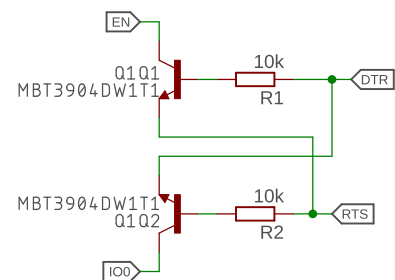
Auto Reset

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

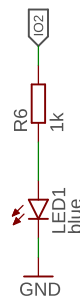
If RTS is HIGH:  
toggling DTR from LOW to HIGH  
resets to bootloader.

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

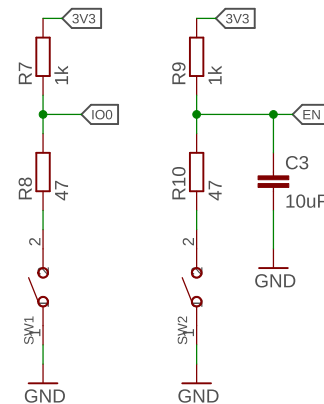
If U0TXD, GPIO2, GPIO5 are floating, GPIO0 determines boot mode



User LED

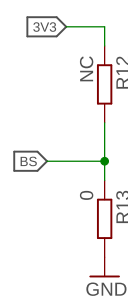


## Buttons

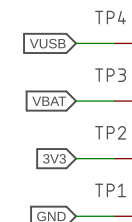


## SPI Selector

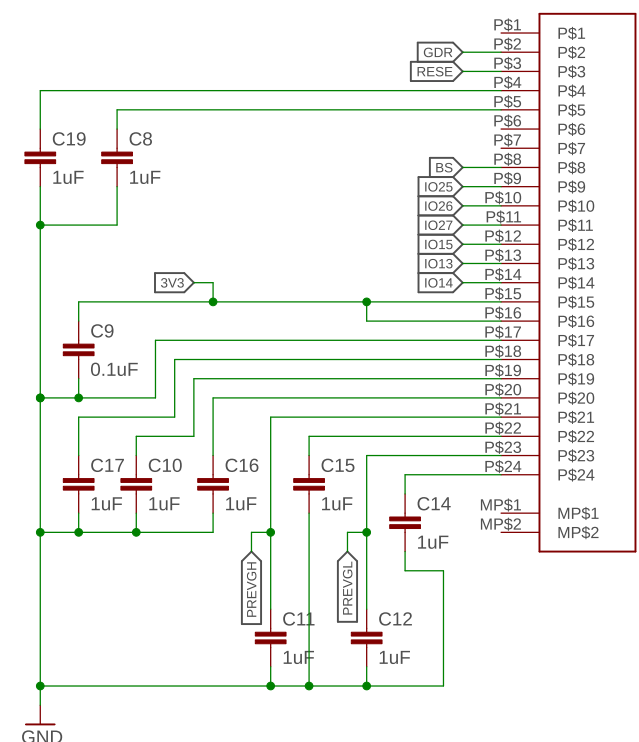
BS & 3V3 connected >> 3-line SPI  
BS & GND connected >> 4-line SPI



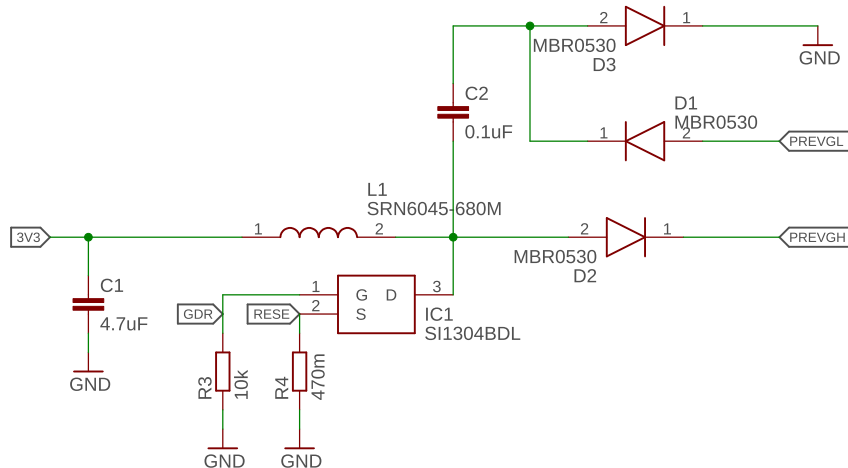
## Test Pads



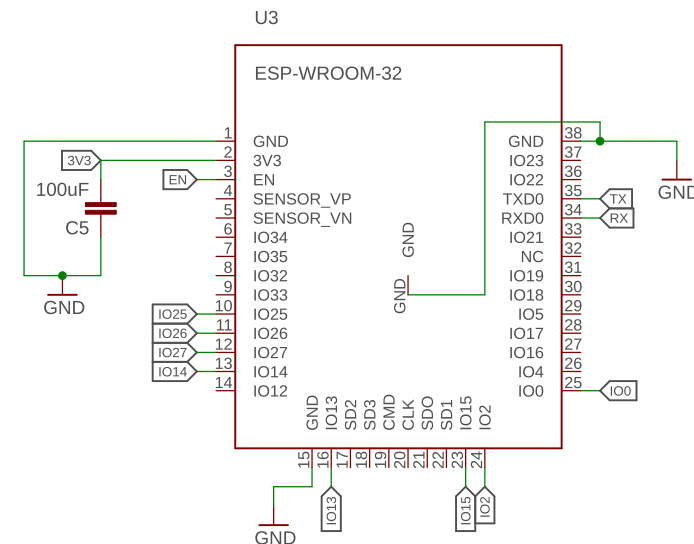
## E-Paper Connector



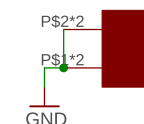
## E-Paper Driver



## ESP32



## RFID Transponder



## Fiducials



This design is based on the "Sparkfun ESP32-Thing-Plus" and the "Waveshare e-Paper ESP32 Driver Board".  
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