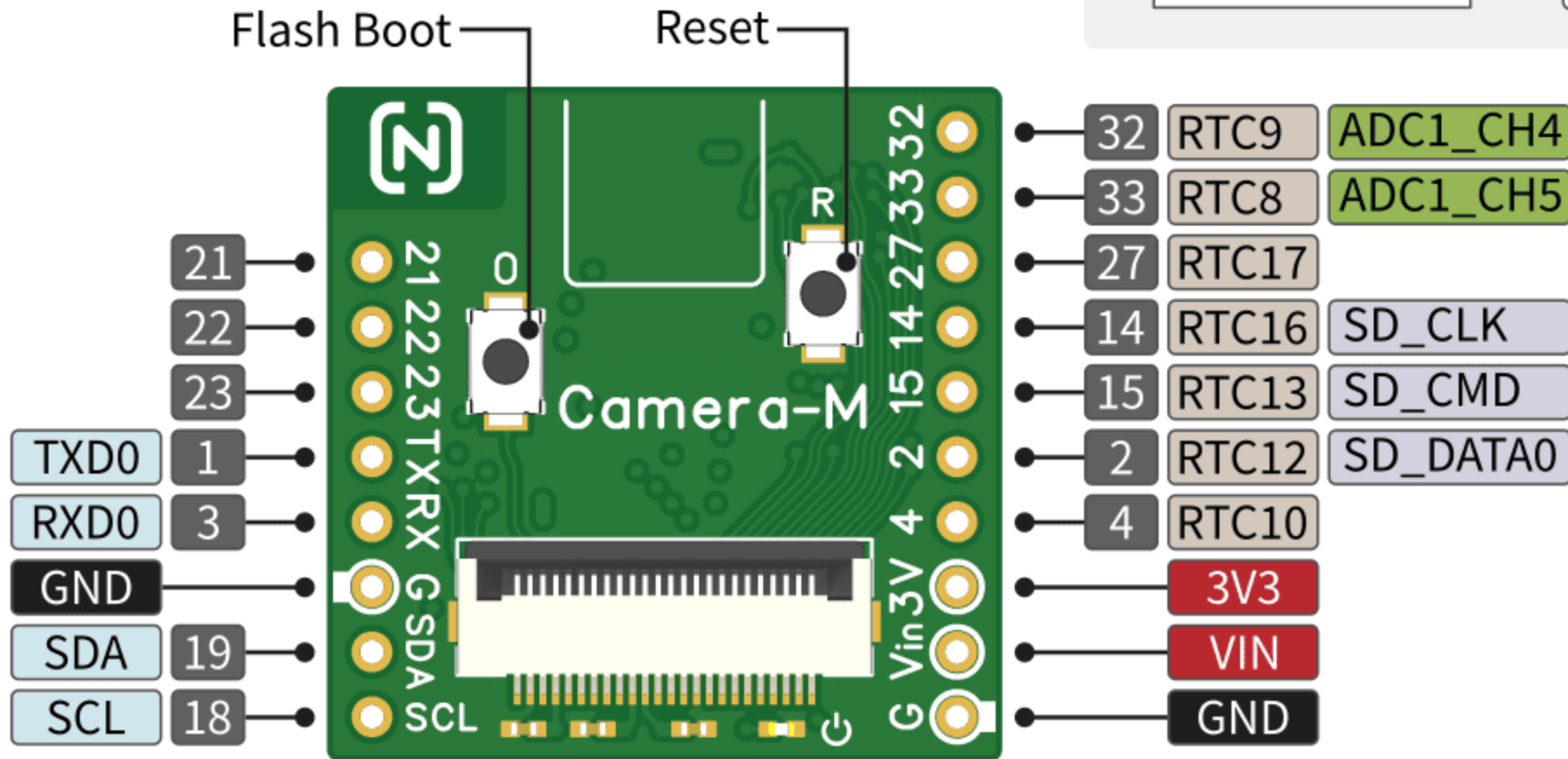


Camera-M

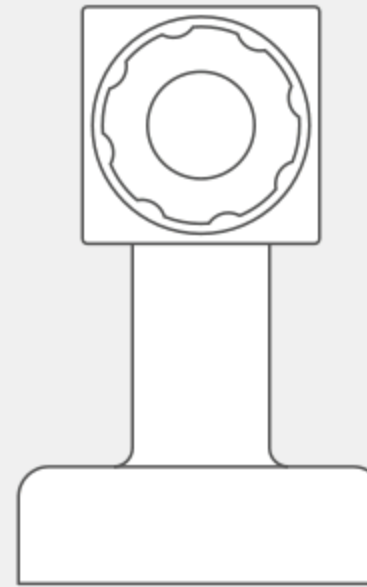
PINOUT DIAGRAM

VIN Unregulated power input
3.7-5.5V

3V3 3V3 output from regulator
ABSOLUTE Max 200mA



OV2640 Camera Pin Assignment



PWDN	-1	Y9	38
RESET	-1	Y8	37
XCLK	0	Y7	36
SIOD	19	Y6	25
SIOC	18	Y5	34
VSYNC	5	Y4	13
HREF	39	Y3	12
PCLK	26	Y2	35

- Power
- GND
- GPIO Number
- RTC IO Number
- Analog Pin
- Serial Pin
- SDMMC Pin

When connecting the Basic shield, the SD_CLK, SD_CMD, and SD_DATA0 pins are connected to the SD card slot on the shield in SDMMC 1-bit mode with pull-up resistors.

Camera-M

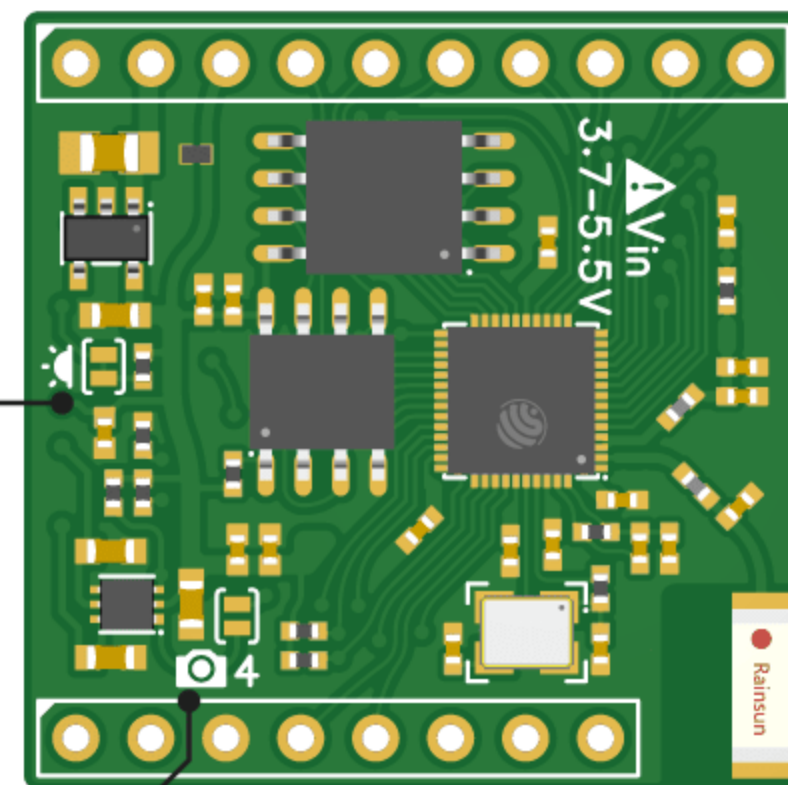
SOLDER JUMPERS

Power-On Indication

To disable the power-on LED, disconnect the jumper.

Camera Power Control

Solder the jumper to connect GPIO4 with the EN pin of the camera regulator. This allows your firmware to control the camera power ON (H) and OFF (L), reducing power consumption.



Basic Shield

Battery Monitor

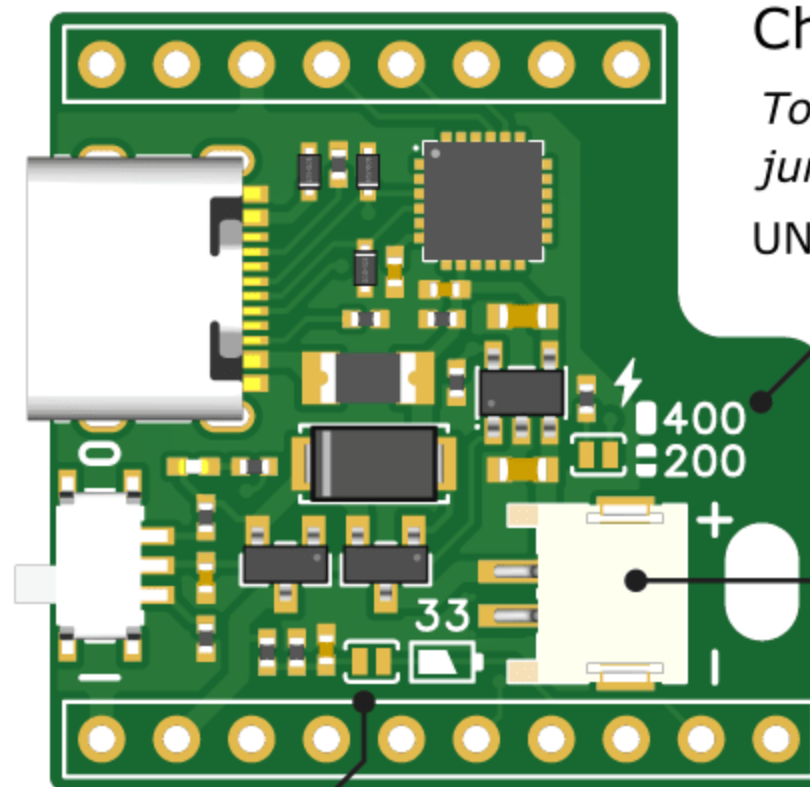
There is a 100kΩ-100kΩ resistor divider connected to the battery input. Solder the jumper to connect GPIO33 (ADC1_CH5) with the voltage divider, which will allow your firmware to determine the battery state.

Charging Current Selection

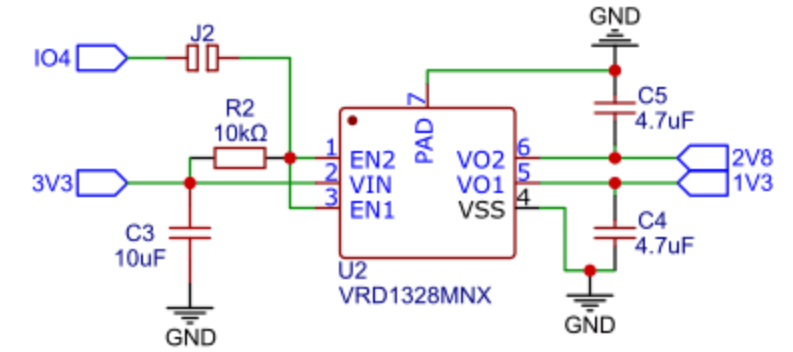
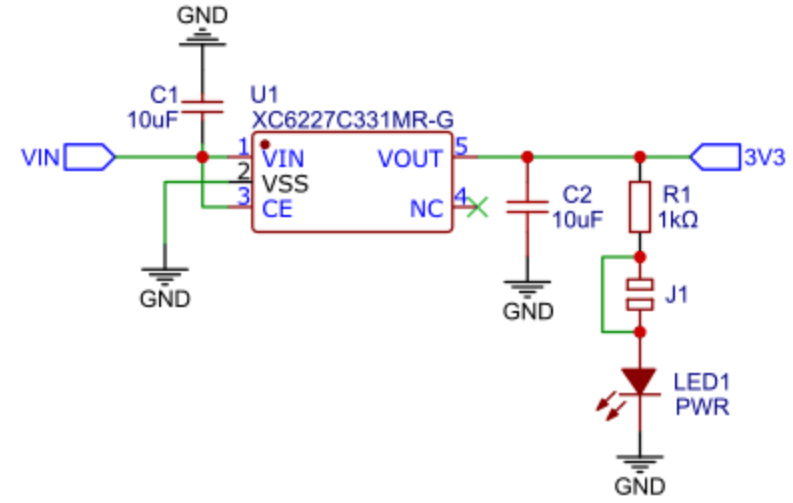
To change the charging current, solder the jumper to connect the included resistor.

UNCONNECTED - 200mA current limit
CONNECTED - 400mA current limit

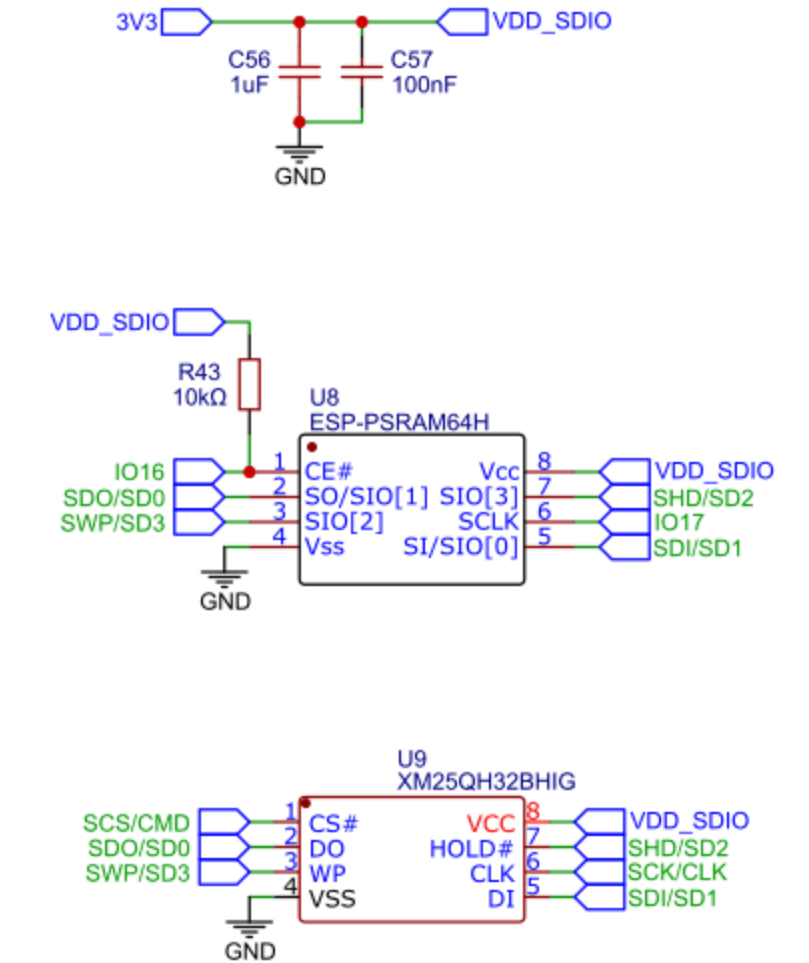
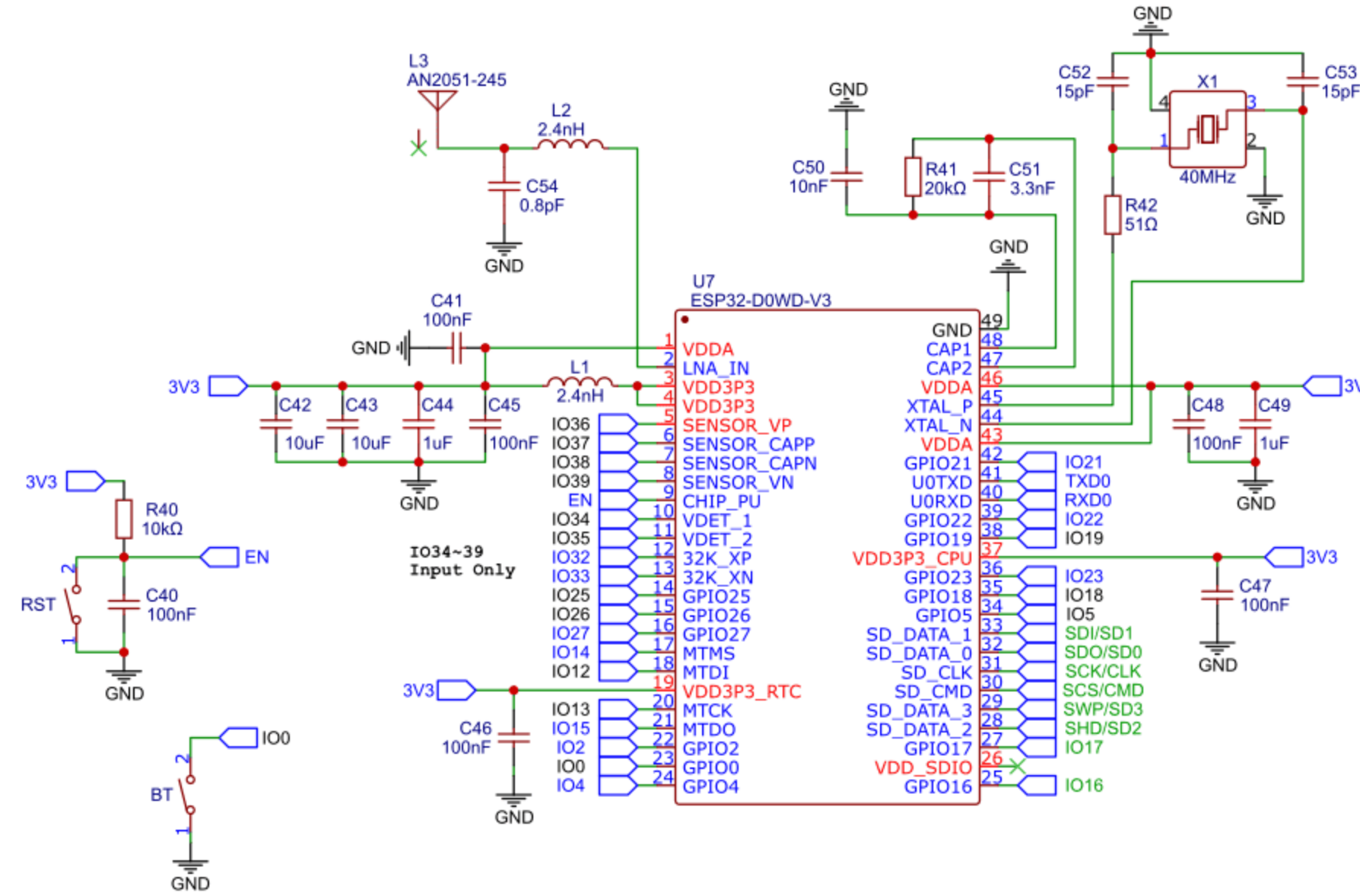
LiPo Battery JACK
JST-ZH 1.5mm



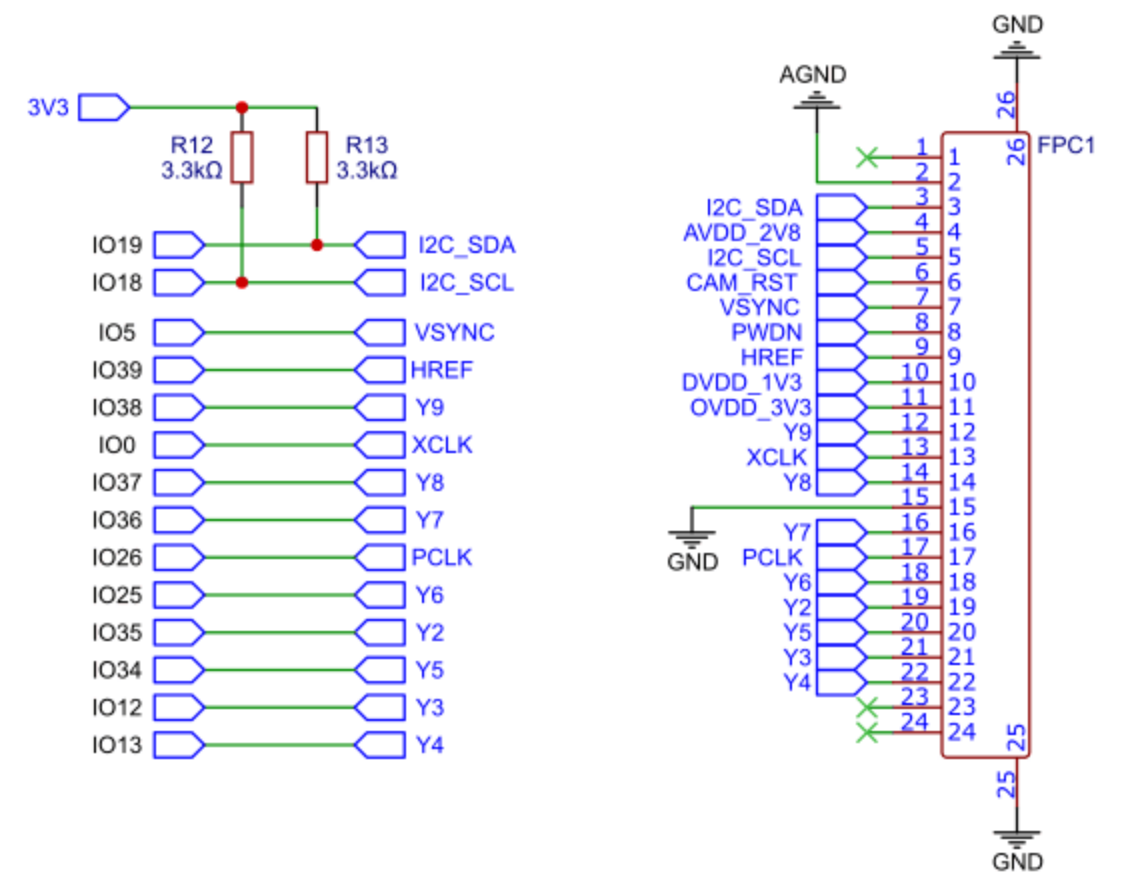
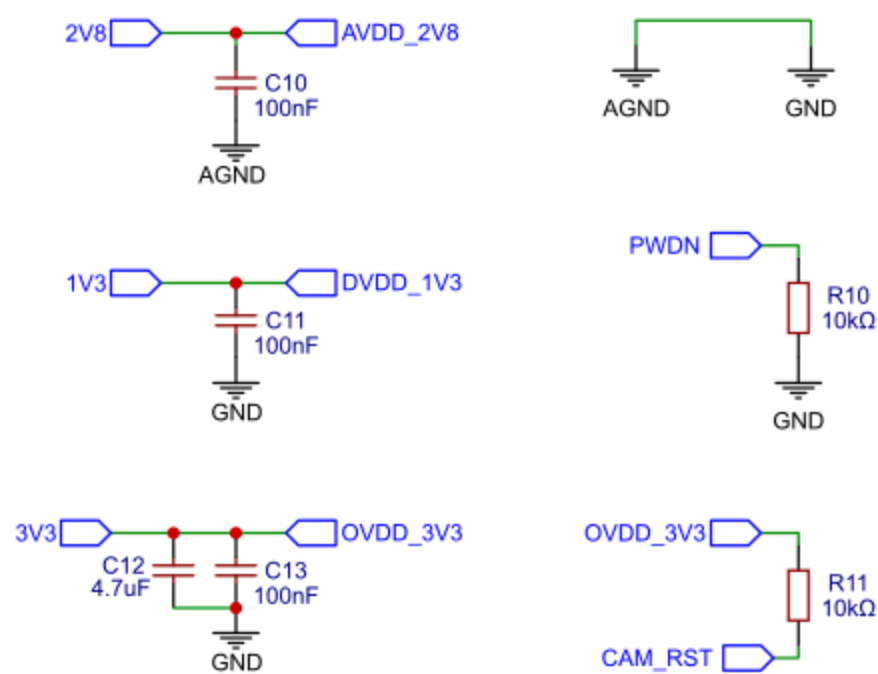
VOLTAGE REGULATOR



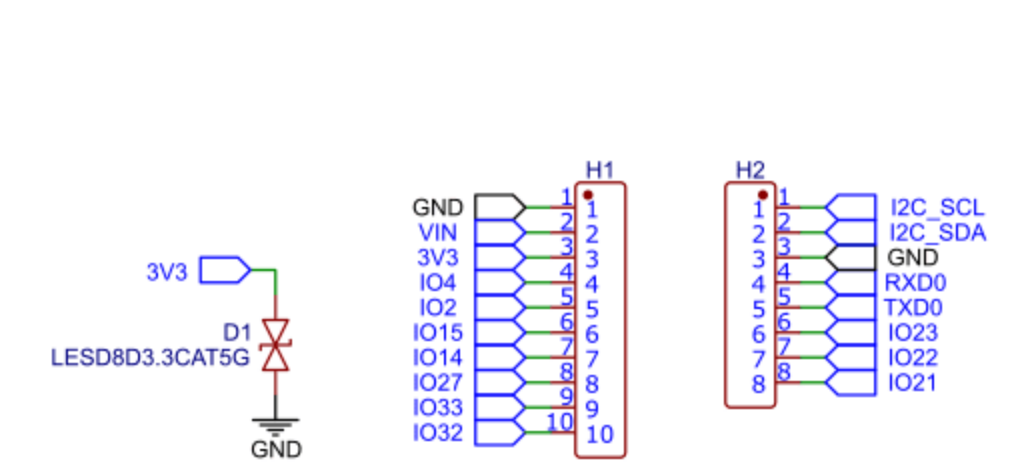
ESP32-D0WD



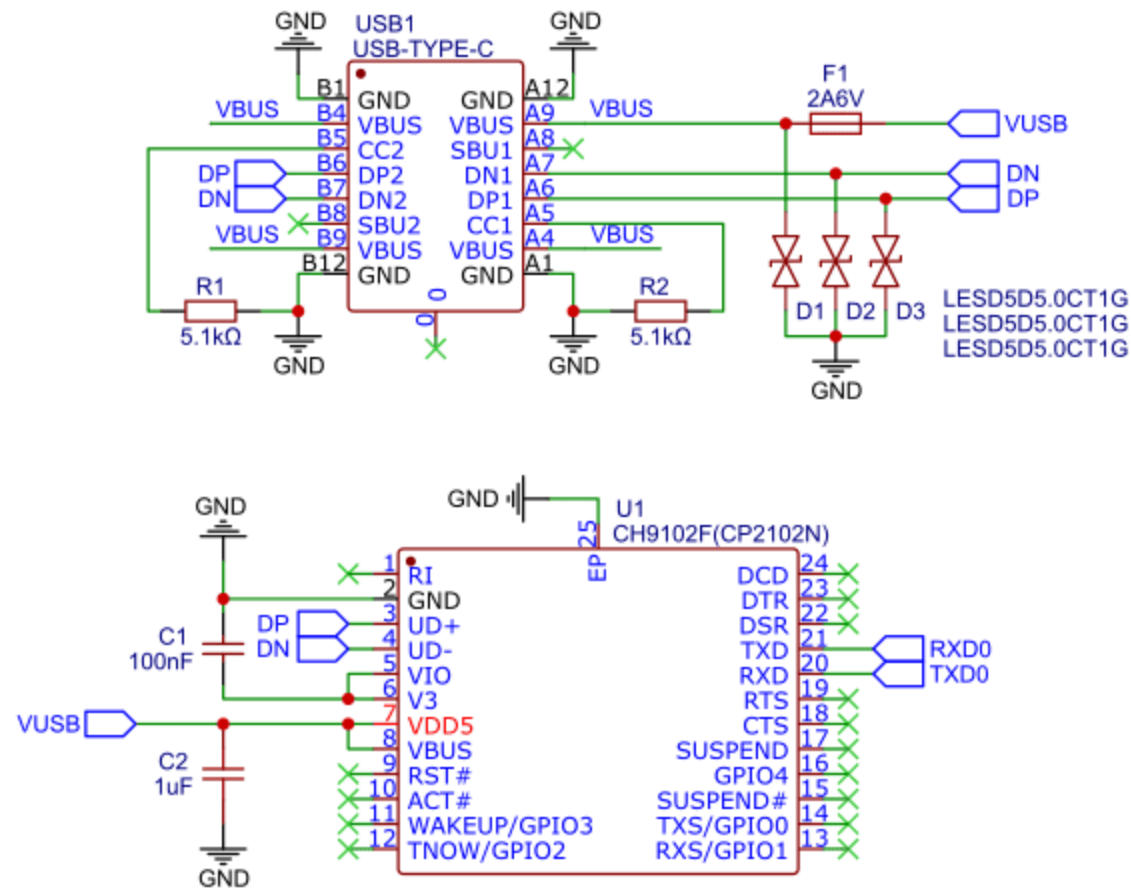
CAMERA OV2640



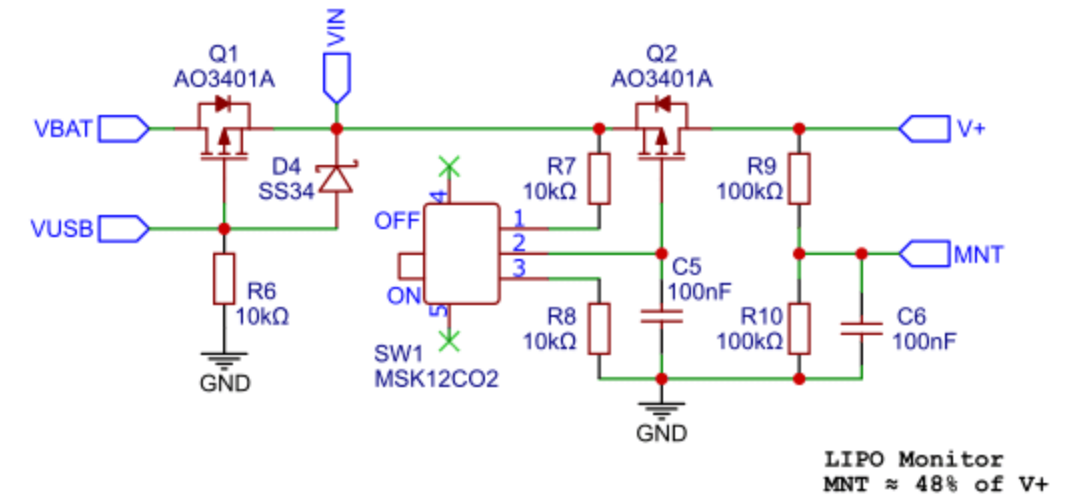
HEADERS



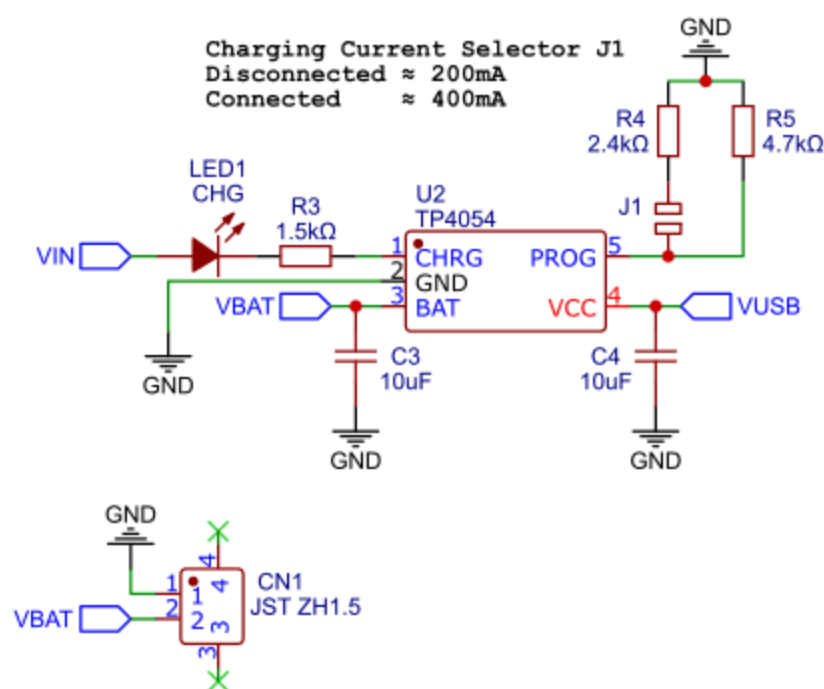
USB TO SERIAL CONVERTER



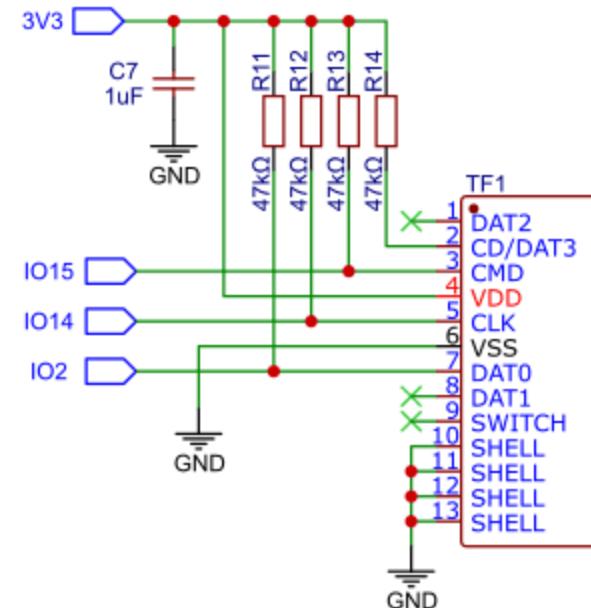
POWER SWITCH



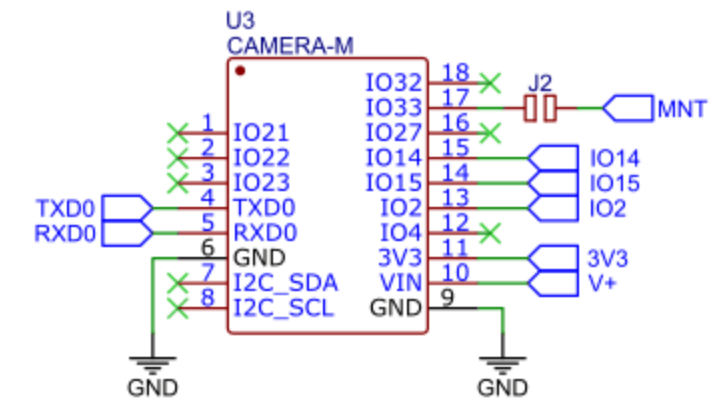
LIPO CHARGER




SD CARD



HEADERS



TITLE: Camera-M Basic		REV: 1.0
	Company: Node-Matrix	Sheet: 1/1
	Date: 2023-10-23	Drawn By: Jason Yang