



# Arribada PMP

Arribada Penguin Monitoring Platform (APMP) is a standalone device featuring a Raspberry Pi and a Raspberry Pi Camera Module with a number of additional features.

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- PAGE1 - MAIN
- PAGE2 - MCU
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## Version Revision:

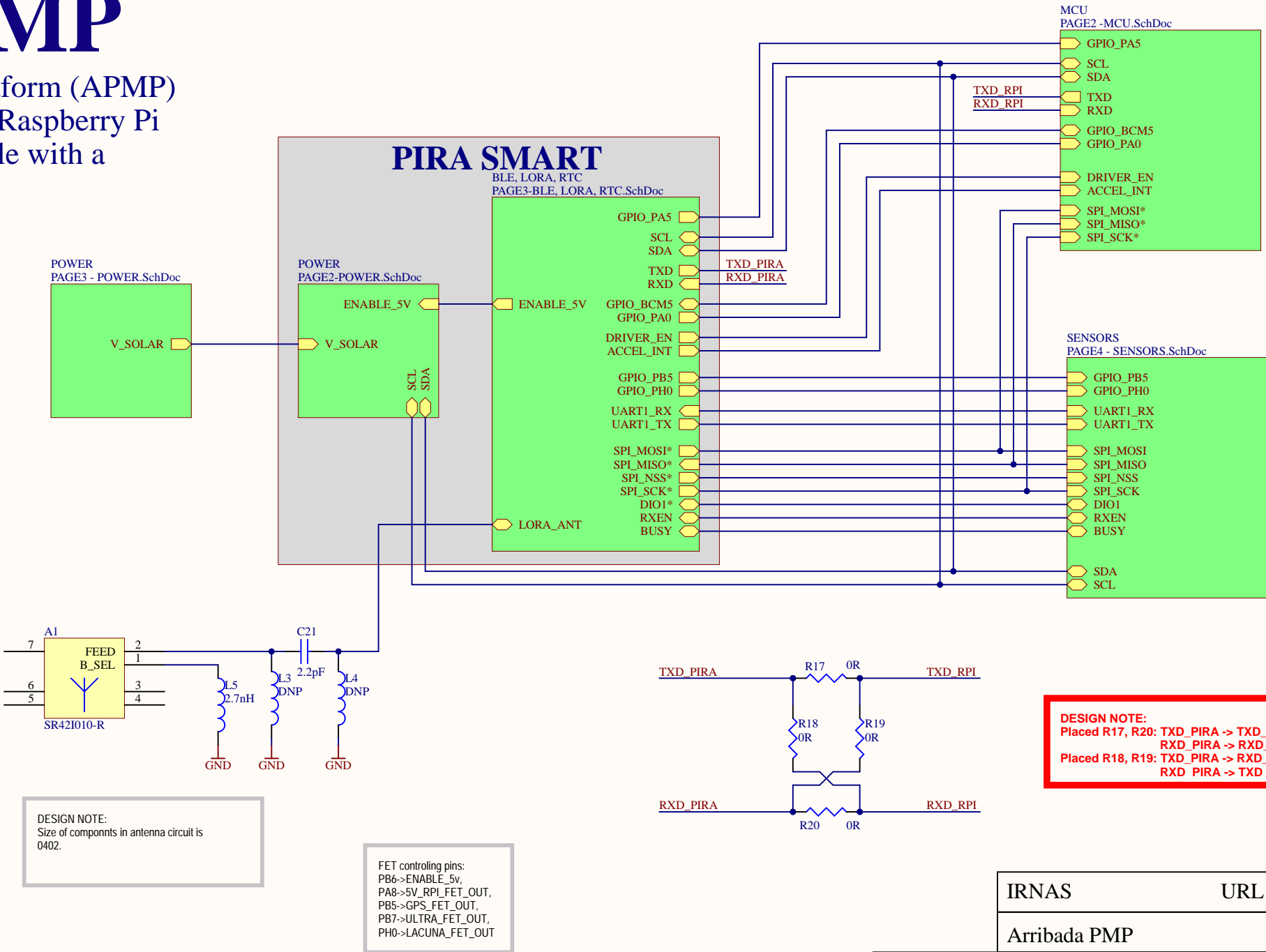
- v0.1 - dd.mm.yyyy
- v0.2 - dd.mm.yyyy

### DESIGN CONSIDERATIONS

DESIGN NOTE:  
Example text for informational design notes.

DESIGN NOTE:  
Example text for critical design notes.

LAYOUT NOTE:  
Example text for critical layout guidelines.

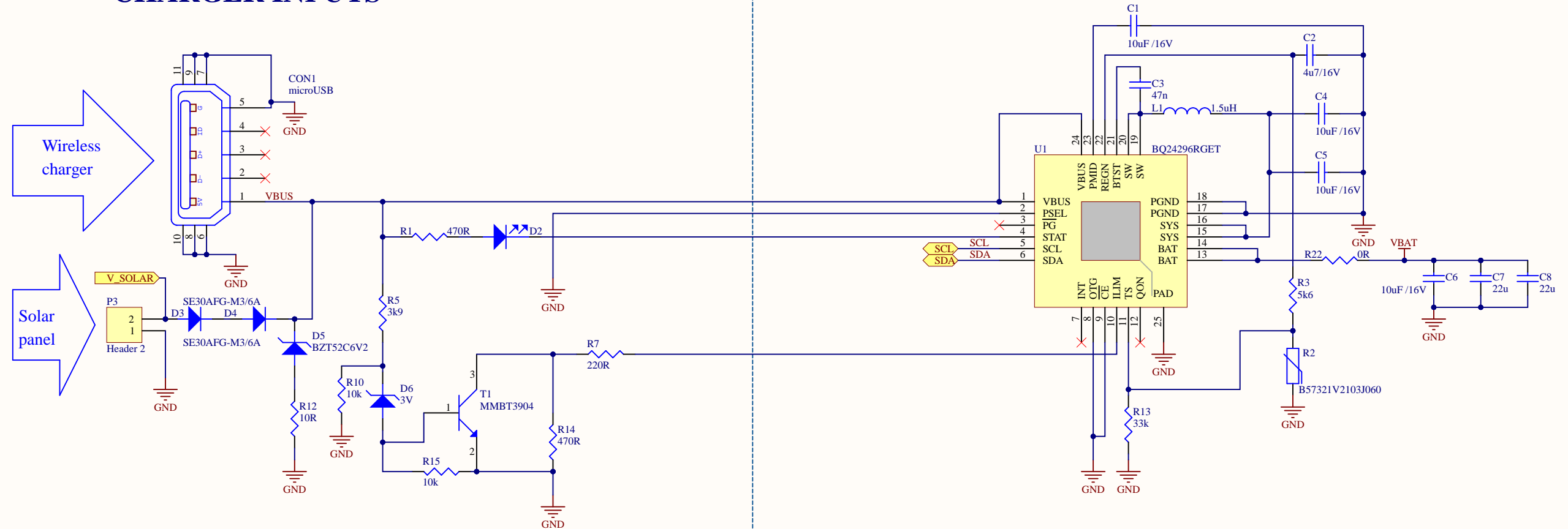


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# POWER SHEET

## CHARGER

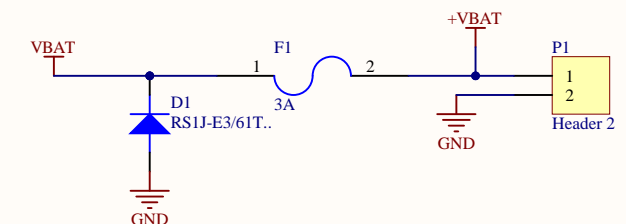
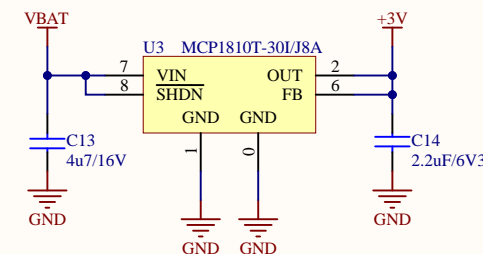
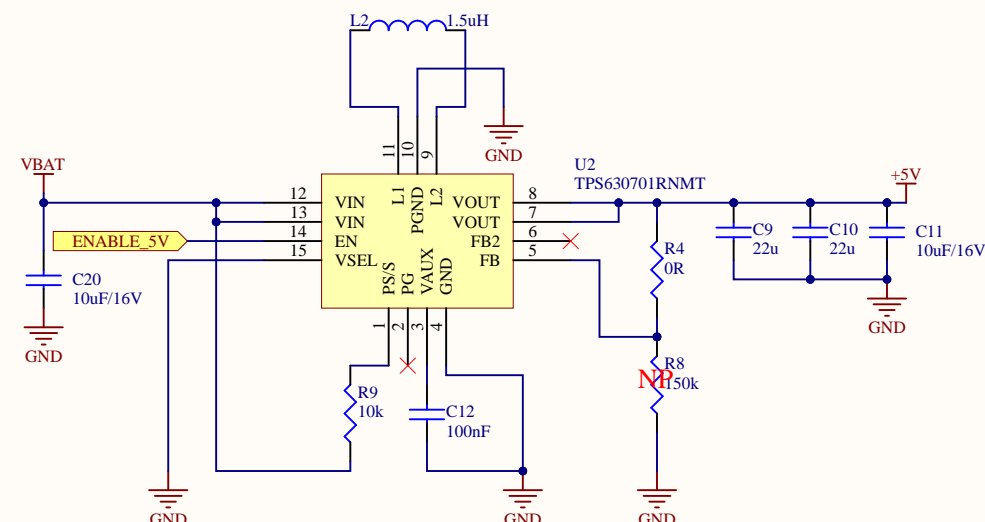
### CHARGER INPUTS



### BOOST CONVERTER

### LDO REGULATOR

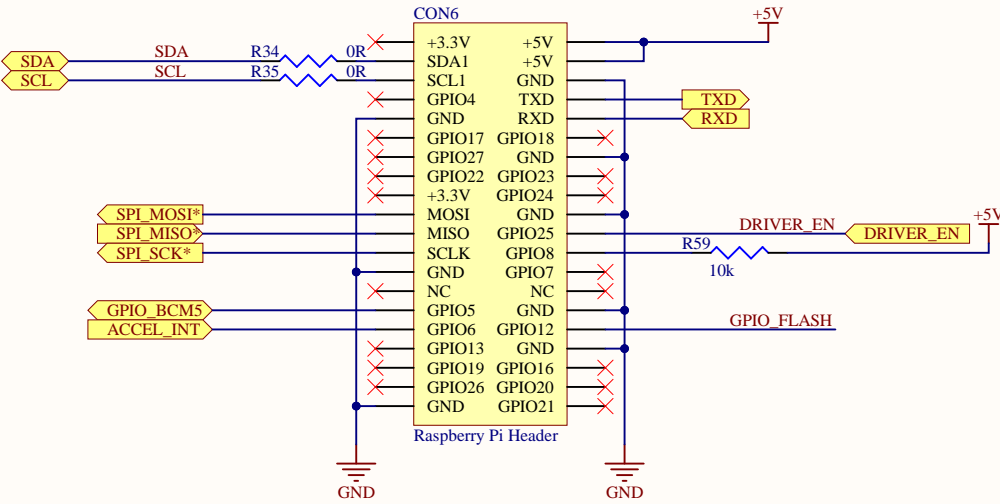
### BATTERY CONNECTOR



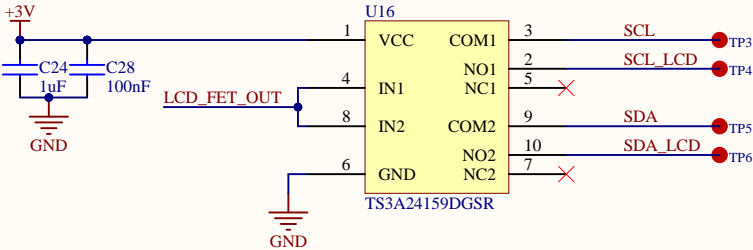
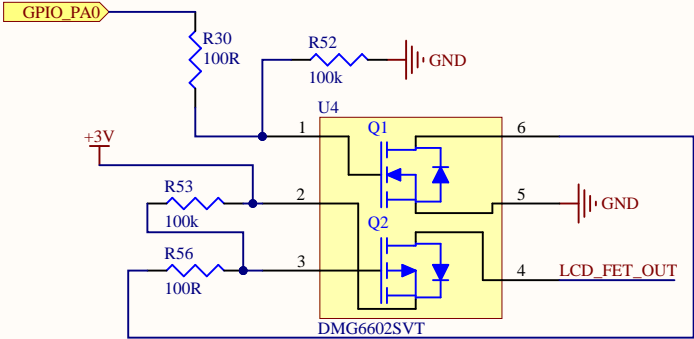
DESIGN NOTE:  
VCC = +3 V  
Iq = 20nA

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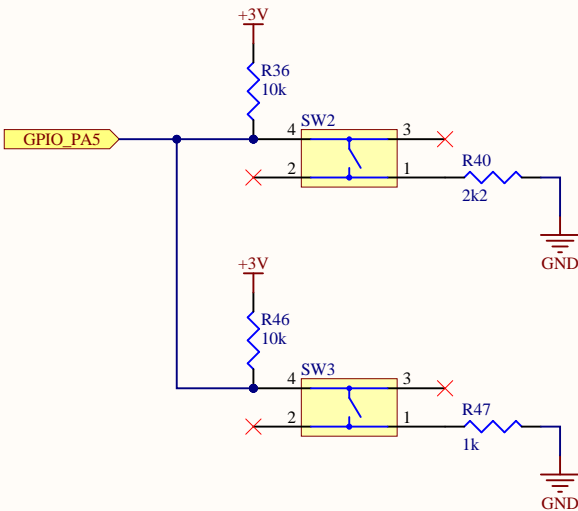
Raspberry Pi Zero



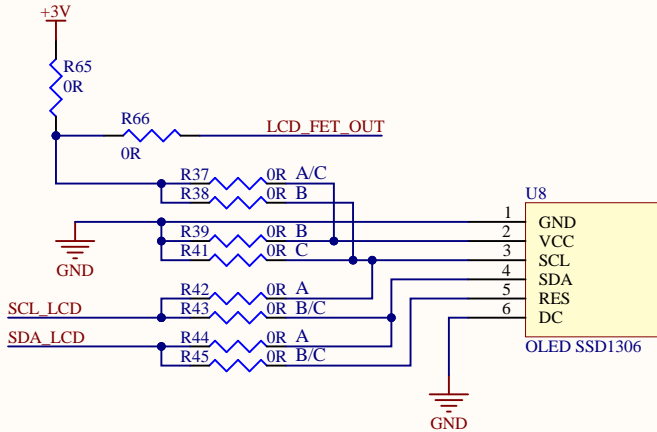
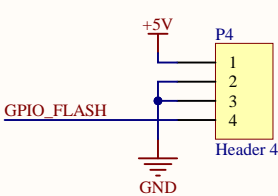
OLED display



GPIO buttons



RPi camera LED ring



Design note:  
Check pinout on oled display, determine if it is A, B or C. Solder 0 ohm resistors on marked positions, leave other ones disconnected.

PIN	A	B	C
1	GND	NC	NC
2	VCC	GND	VCC
3	SCL	VCC	GND
4	SDA	SCL	SCL
5	RES	SDA	SDA
6	DC	NC	NC

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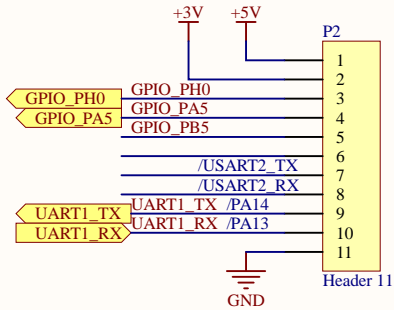
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# MCU+LORA

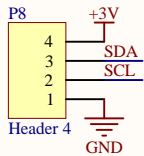
# CONNECTORS

## GPIO header

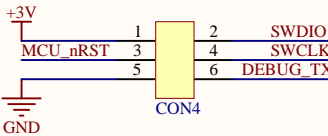


DESIGN NOTE:  
PB5 - GPS FET OUT  
PB7 - ULTRASONIC FET OUT  
PH0 - LED status +Rock block  
PA5 - GPIO buttons (voltage divider)

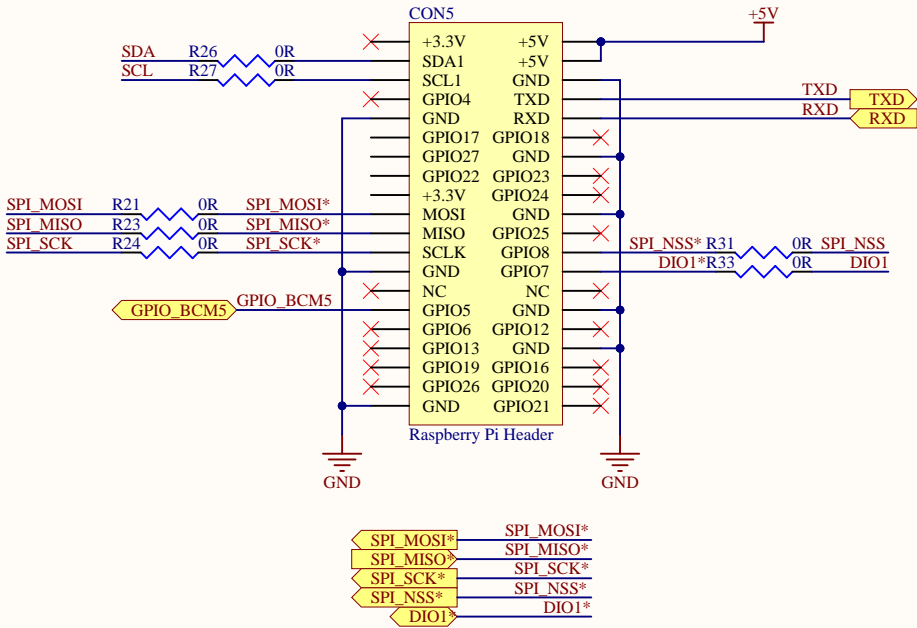
## I2C



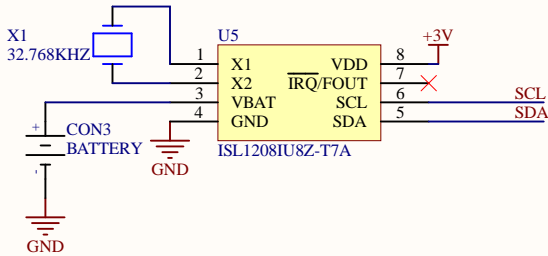
## PROGRAMMER



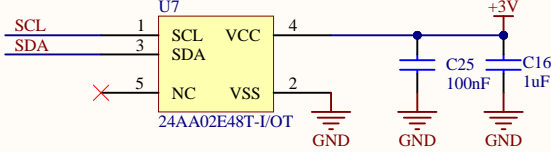
## RPI CONNECTOR for PIRA



# RTC



# EEPROM WITH EUI



IRNAS

URL

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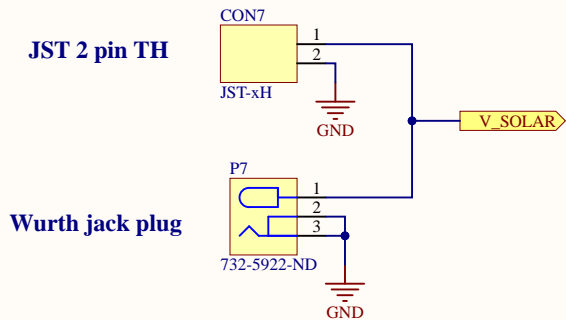
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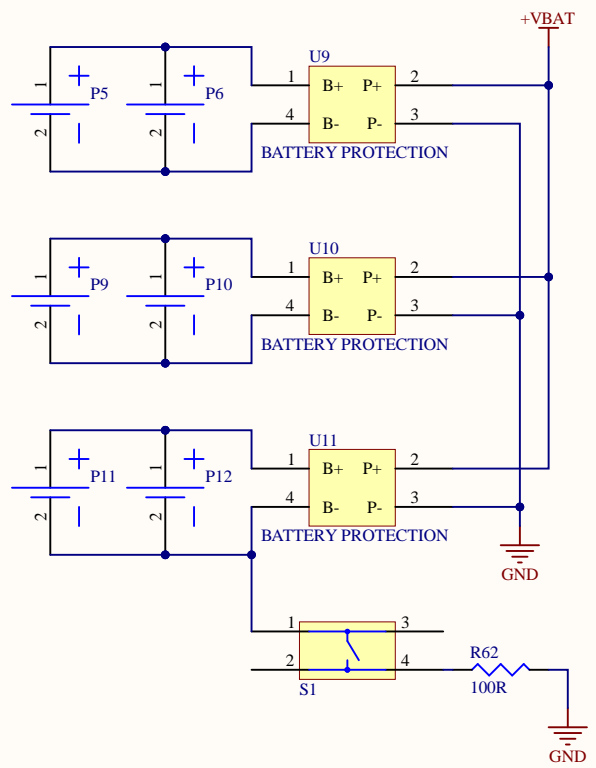
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Solar connectors

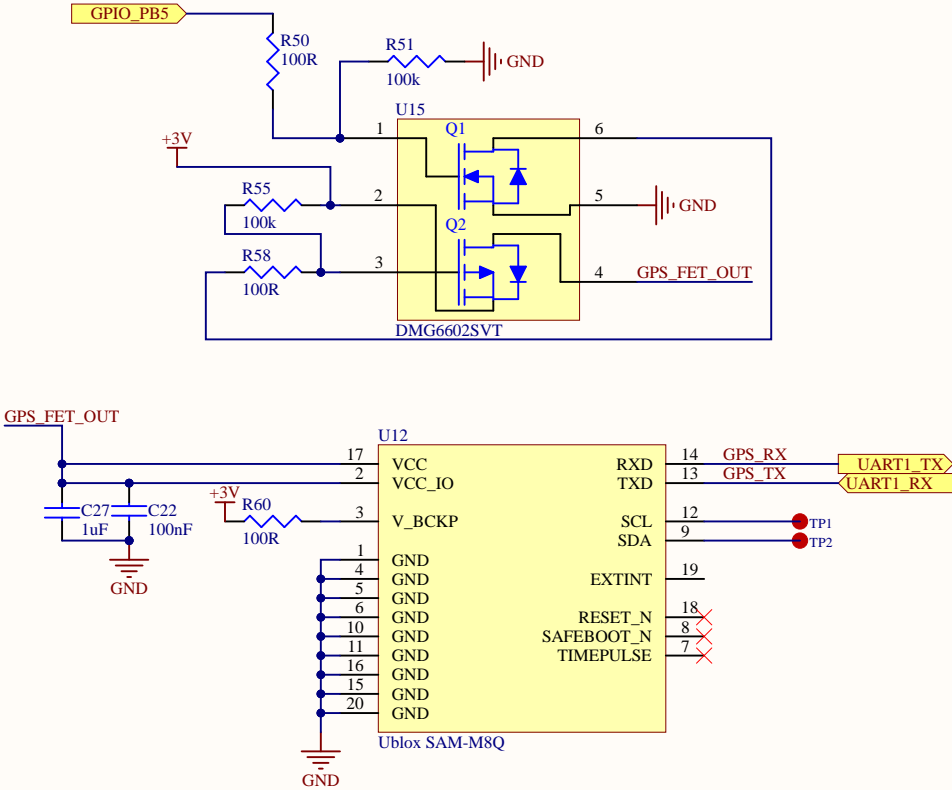


Battery protection

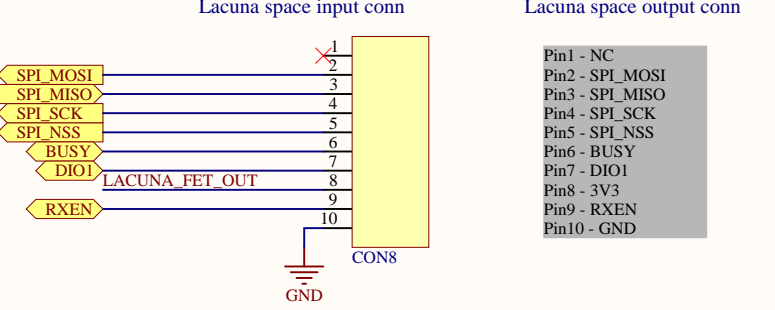
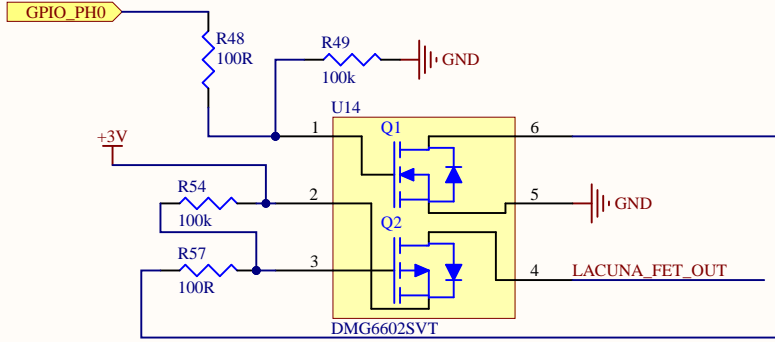


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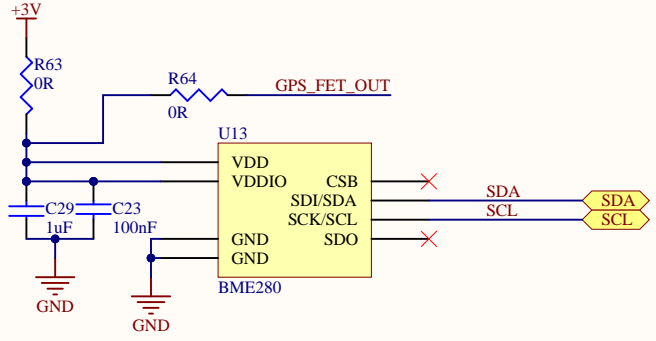
# GPS sensor



# Lacuna space



# Microclimate sensor



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