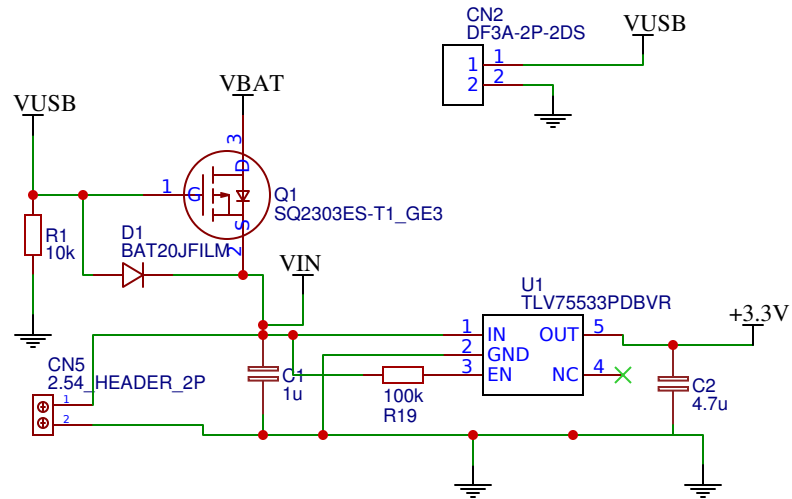
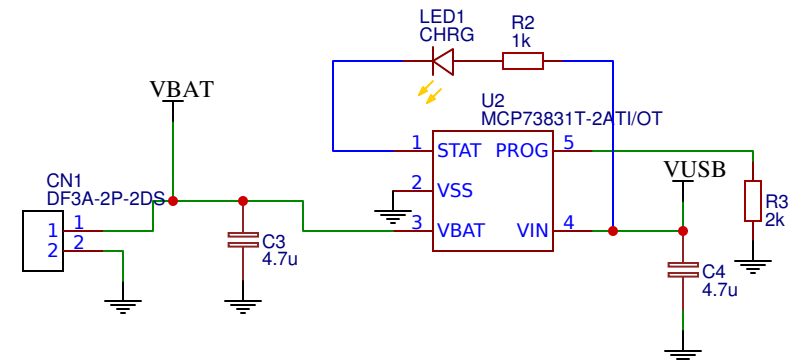


Power input (USB/Lipo)



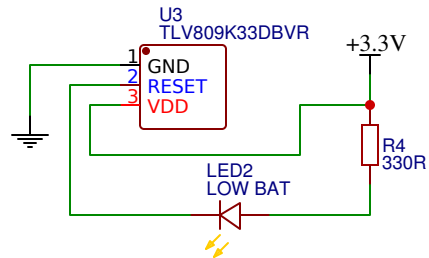
https://cdn.sparkfun.com/assets/learn_tutorials/5/0/7/esp32-thing-schematic.pdf

Li-Po Charging



https://cdn.sparkfun.com/assets/learn_tutorials/5/0/7/esp32-thing-schematic.pdf

Low Bat Warning LED

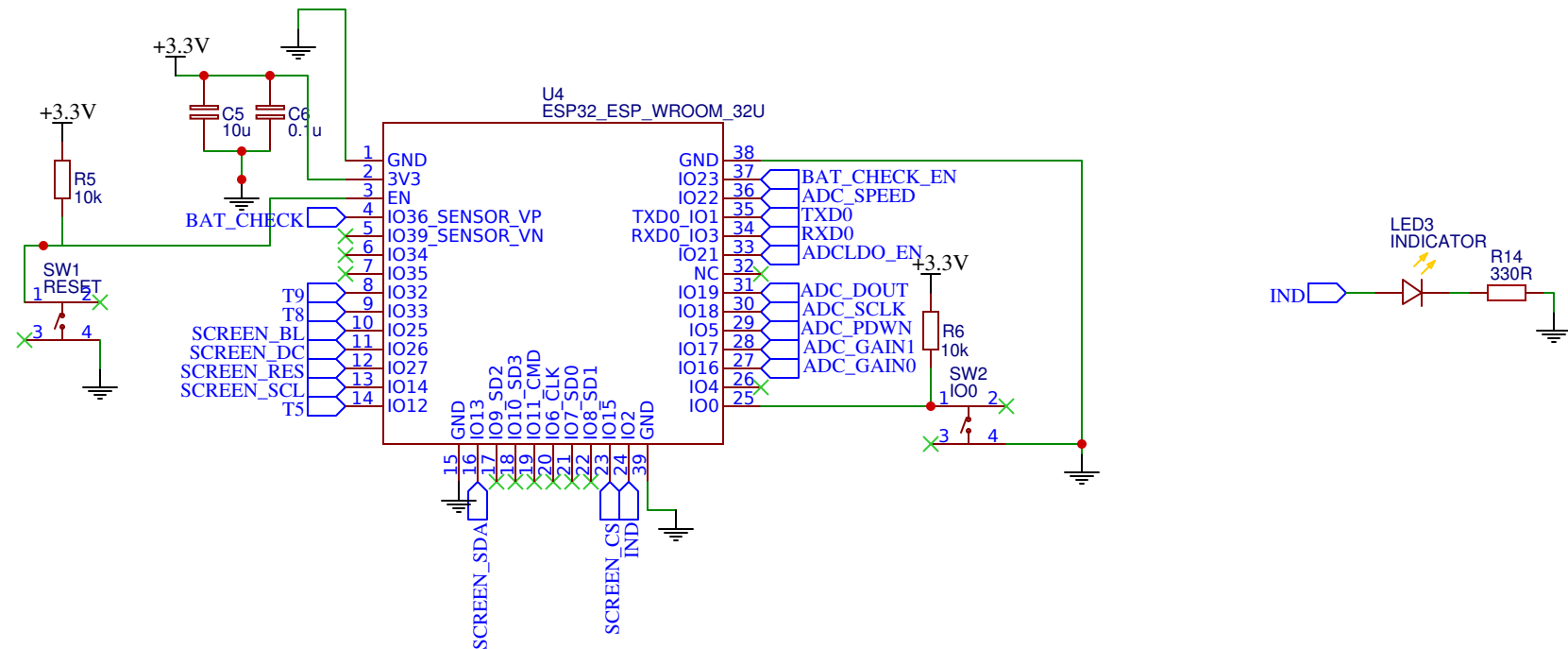


Completely optional but very useful.

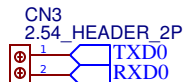
Will detect and enable LED even when our MCU is in deep sleep.

Use a low power led.

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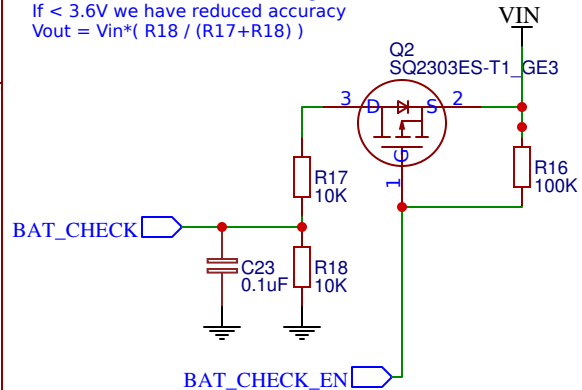


Serial output



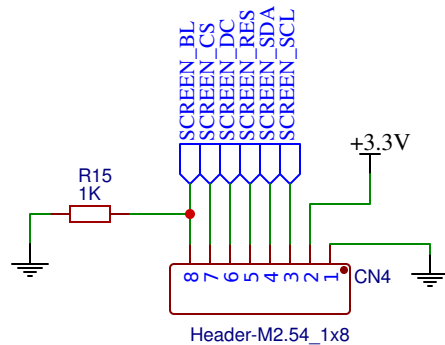
Input V measurement

We measure VIN near our analog LDO
If < 3.6V we have reduced accuracy
 $V_{out} = V_{in} * (R18 / (R17 + R18))$



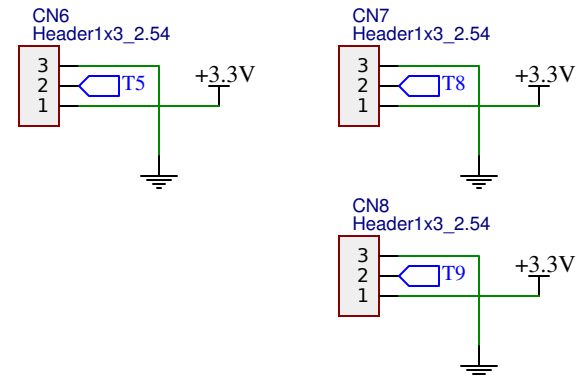
Merci !
<https://hallard.me/>
<https://github.com/hallard/Battery-Voltage-Measure>

OLED/IPS SPI (HSPI) connector



Pin compatible with most cheap SSD1306(OLED), SSD1331(OLED), ST7735S(TFT).
If you have a different pinout, use a cable.

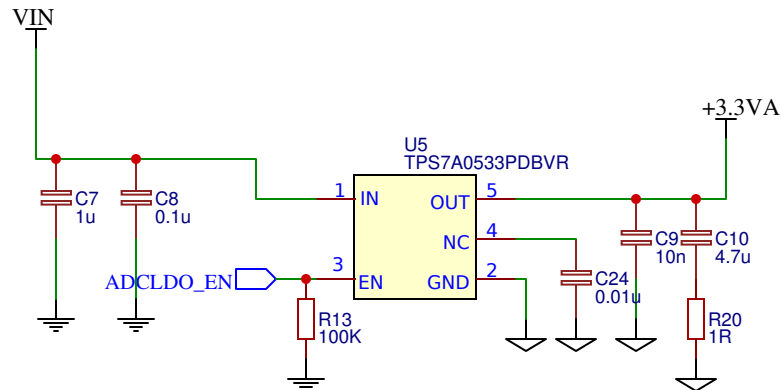
External button connectors



Pin compatible with most cheap TTP223 touch modules.

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Date: 2019-03-14	Drawn By: jousis	

Analog +3.3V LDO

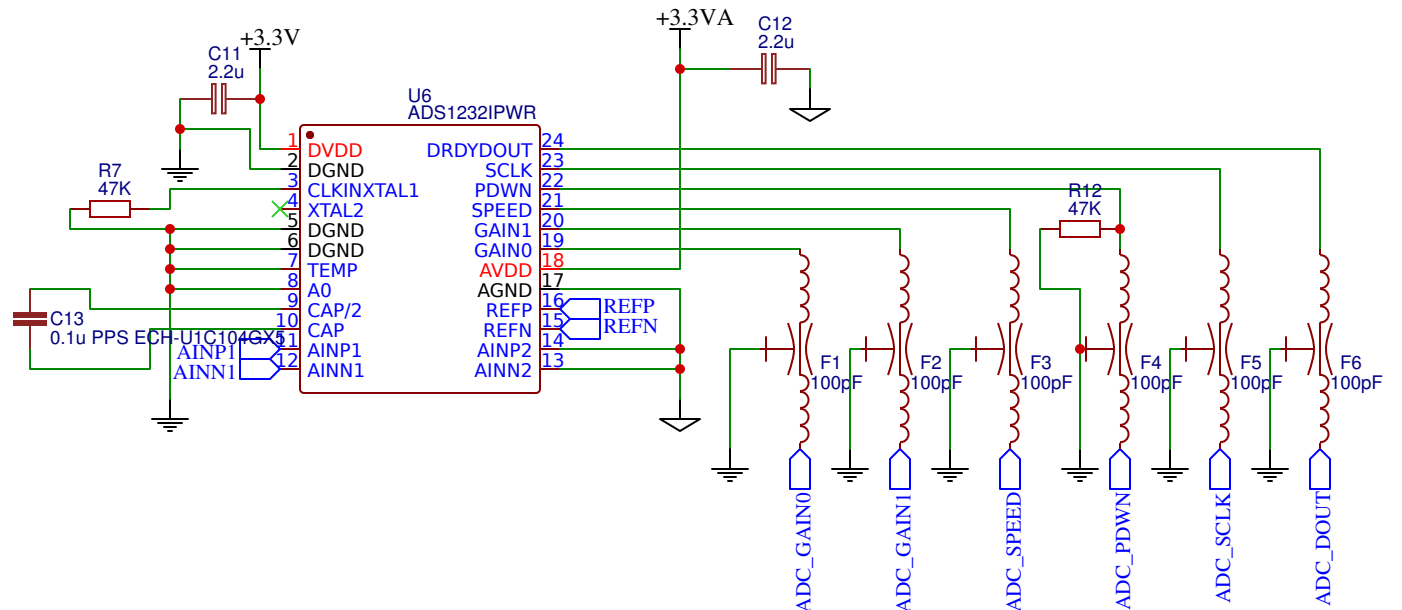


R20 is optional in order to improve output stability if you use low-ESR MLCC.
Check the datasheet of your LDO and decide the needed value.
If you don't want R20, remember to join the pads together to ground C10.

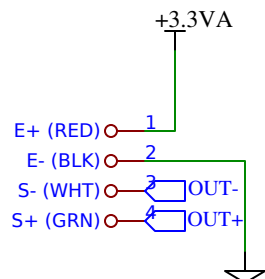
C24 is only for some LDOs for lower noise (ex. TPS736)
and even then, is completely optional. Check datasheet.

Note:

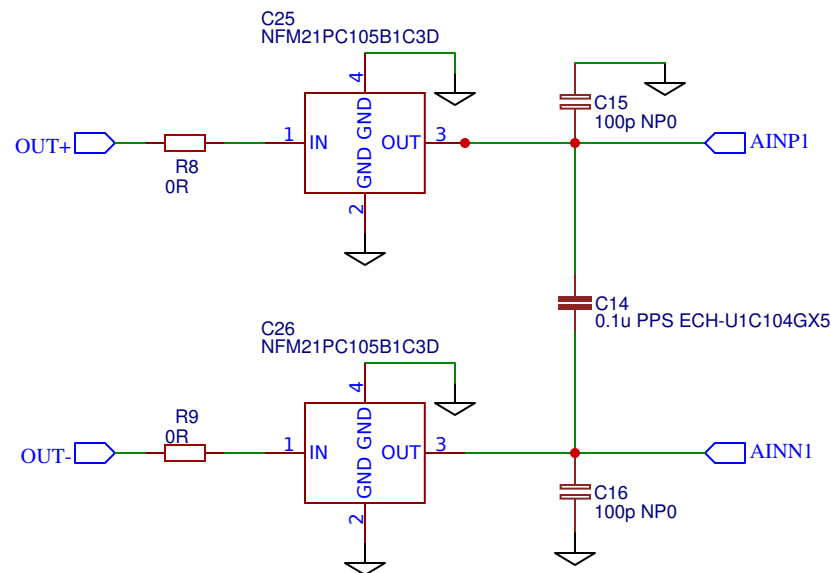
ADS1232 is not using regular SPI protocol
You can use any GPIO (Digital / Output)
Do not use (H/V)SPI bus if you have other SPI devices



Load Cell Pads

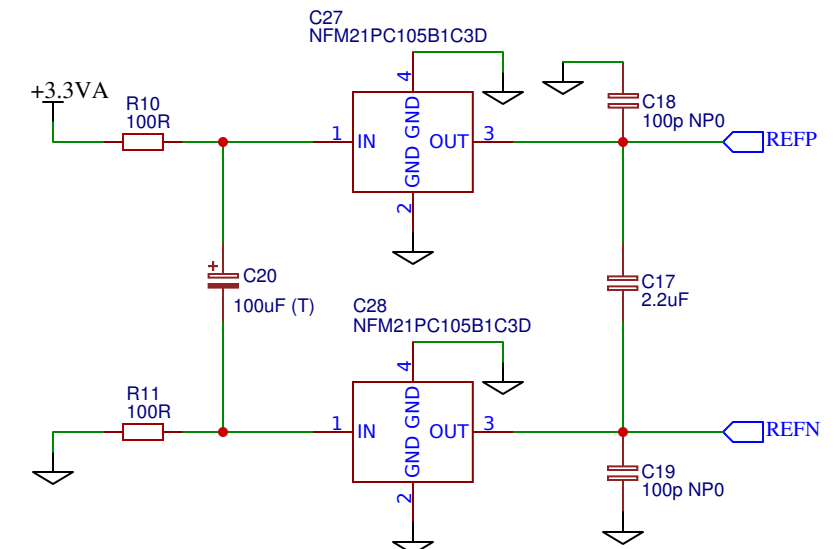


Analog Input +/- RC Filter



Note: R8,R9 values are not fine tuned. Try 150R or more.

REF+/REF- RC Filter



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Company:		Date: 2019-03-14
Date: 2019-03-14		Drawn By: jousis