

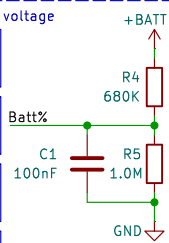
Battery voltage divider for measuring voltage

$R4 = 1.0\text{Mohms}$
 $R5 = 1.5\text{Mohms}$
 $\text{ADC_Multiplier} = (R4 + R5) / R4 = 2.5$

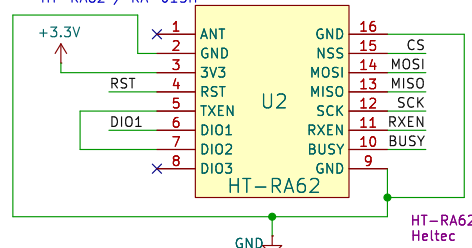
$R4 = 680\text{kohms}$
 $R5 = 1.0\text{Mohms}$
 $\text{ADC_Multiplier} = (R4 + R5) / R4 = 2.4705882352941178$

$R4 = 220\text{kohms}$
 $R5 = 330\text{kohms}$
 $\text{ADC_Multiplier} = (R4 + R5) / R4 = 2.5$

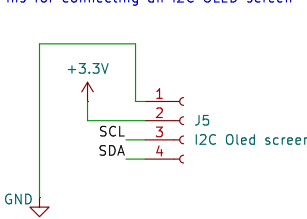
C1 used for getting more stable and accurate readings



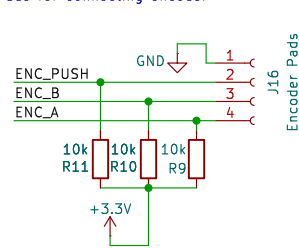
HT-RA62 / RA-015H



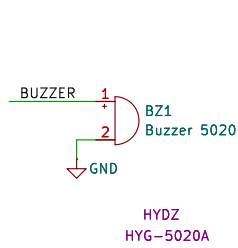
Pins for connecting an I2C OLED screen



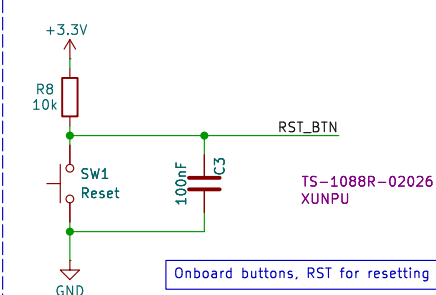
Pads for connecting encoder



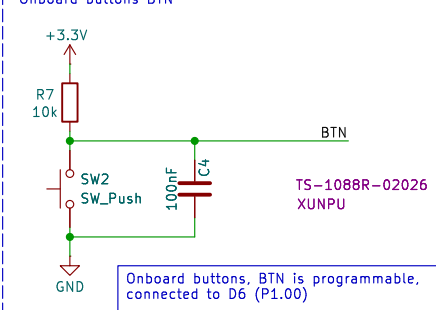
Buzzer



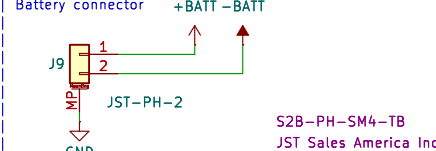
Onboard buttons RST



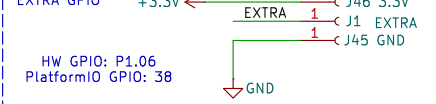
Onboard buttons BTN



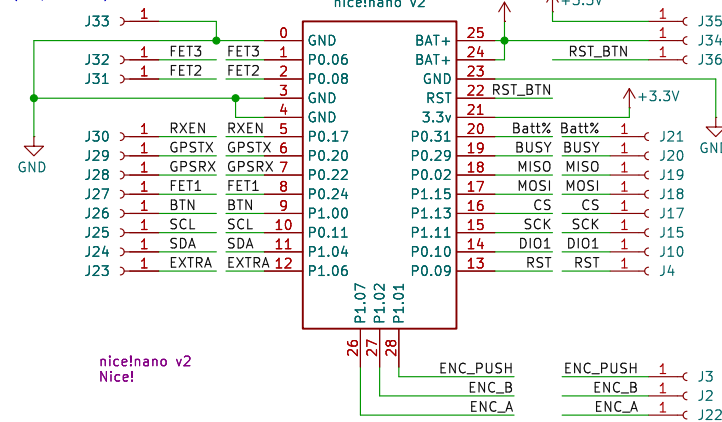
Battery connector



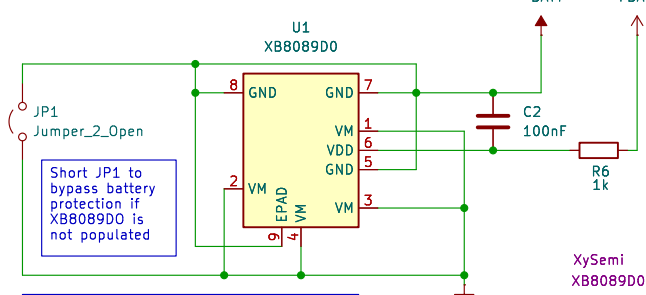
EXTRA GPIO



Nice!Nano nrf52840 microcontroller (or promicro)



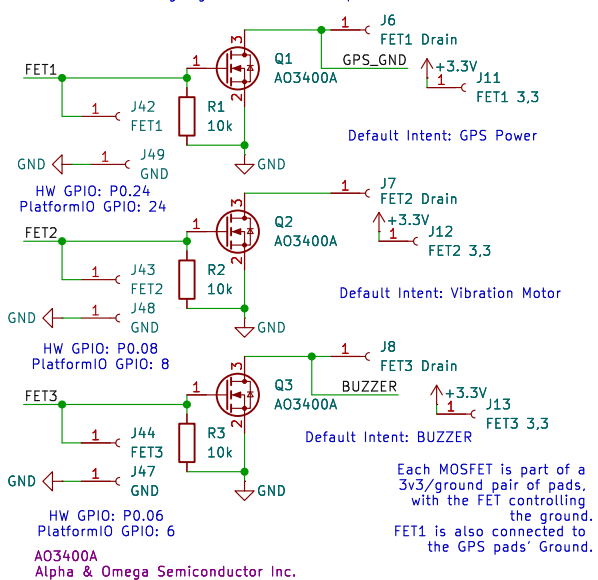
BMS for overdischarge protection



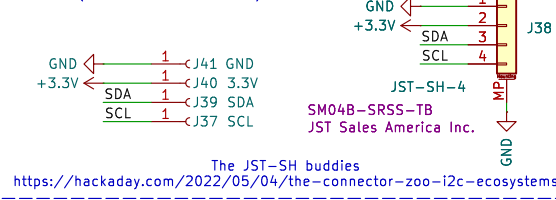
Short JP1 to bypass battery protection if XB8089D0 is not populated

The Nice Nano already has overvoltage protection, but does not prevent overdischarge during use. This BMS ensures that the device shuts off if the battery voltage drops below 2.9v

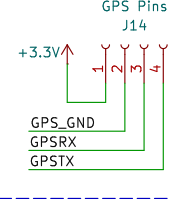
Mosfets used for switching high current external peripherals



I2C Port (For extra sensors etc...)



GPS Pins



Sheet: /
File: fakeTecv5.kicad_sch

Title: roTec v5 (faketeC v5 fork)

Size: A4 Date: 2025-03-19

KiCad E.D.A. 9.0.4

Rev: 3

Id: 1/1