

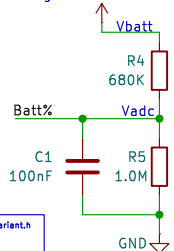
Battery voltage divider for measuring voltage +BATT

R4 = 470
R5 = 680

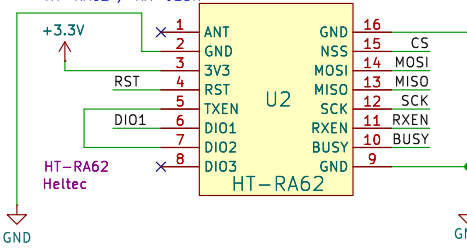
```
# Voltage Division Equation
# Vadc = Vbatt * (R5 / (R4 + R5))
# Voltage Vbatt --> Vadc ratio
# ADC_Division = Vadc / Vbatt = (R5 / (R4 + R5))
R5 / (R4 + R5) = 0.591304347826087
# Voltage Vadc --> Vbatt ratio
# ADC_Multiplier = Vadc / Vbatt = (R4 + R5) / R5
(R4 + R5) / R5 = 1.691784705882353
```

C1 used for getting more stable and accurate readings

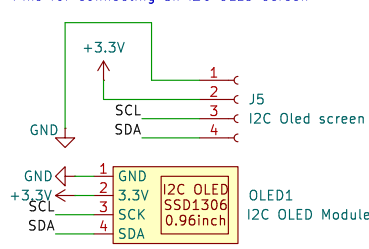
```
firmware/variants/nrf52840/dy/nrf52_microcontroller_diy/variant.h
#define VBAT_DIVIDER_COMP (1.73)
#define ADC_MULTIPLIER VBAT_DIVIDER_COMP
```



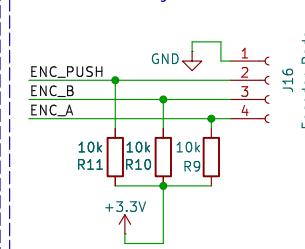
HT-RA62 / RA-015H



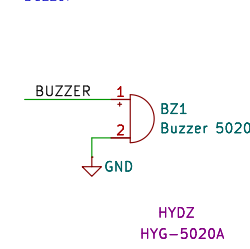
Pins for connecting an I2C OLED screen



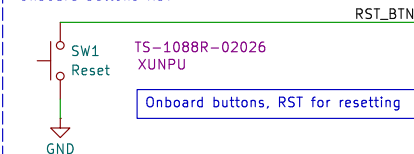
Pads for connecting encoder



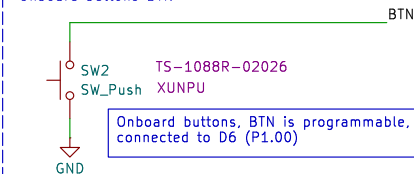
Buzzer



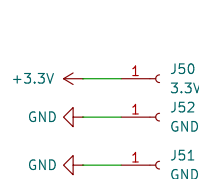
Onboard buttons RST



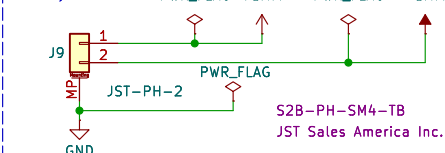
Onboard buttons BTN



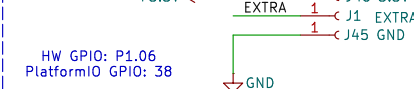
Extra Power Pads



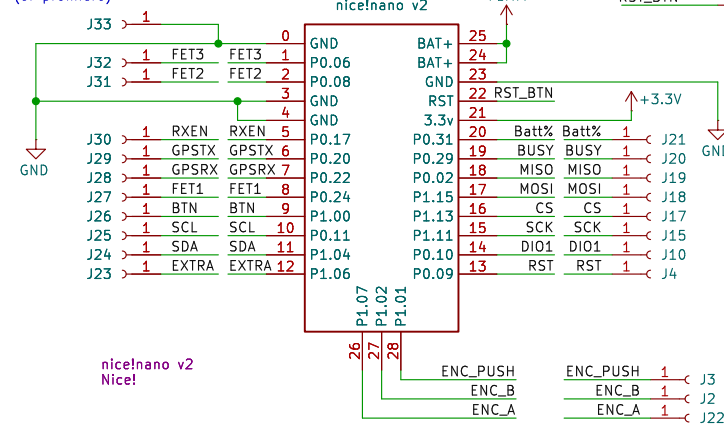
Battery connector PWR_FLAG +BATT PWR_FLAG -BATT



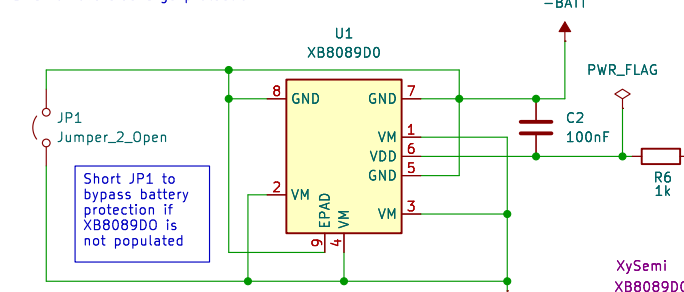
EXTRA GPIO



Nice!Nano nrf52840 microcontroller (or promicro)

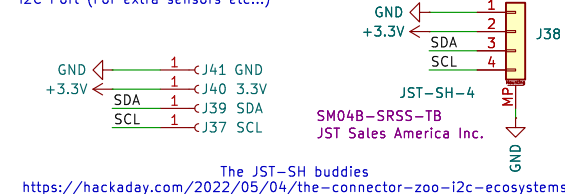


BMS for overdischarge protection

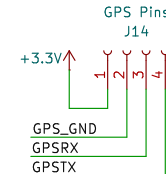


The Nice Nano already has overvoltage protection, but does not prevent overdischarge during use. This BMS ensures that the device shuts off if the battery voltage drops below 2.9V

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: 4

Id: 1/1