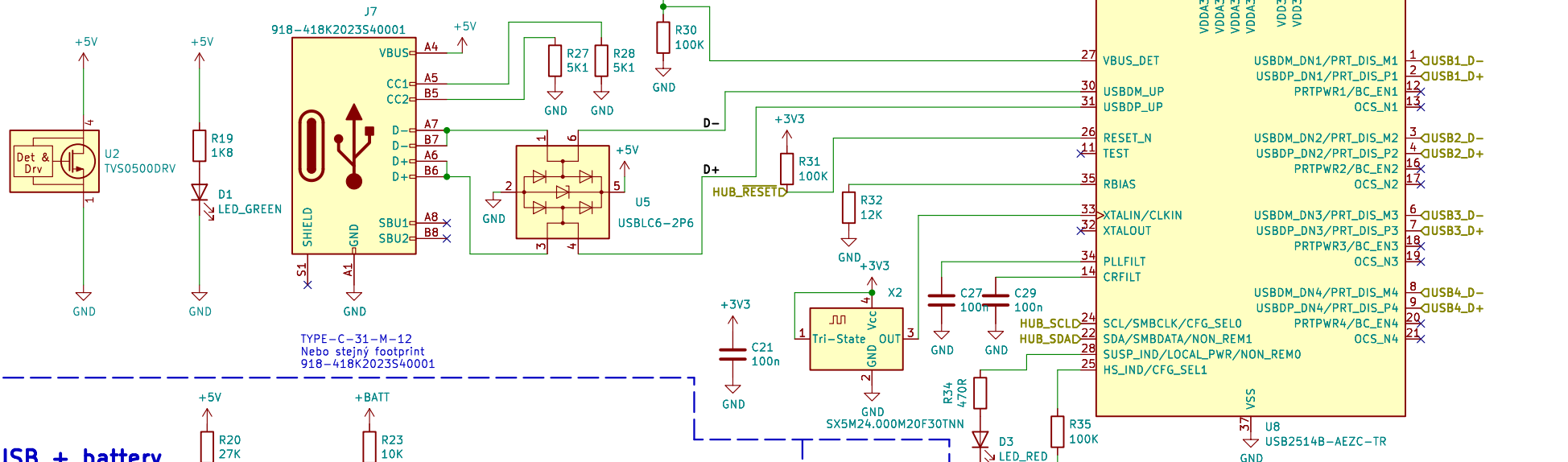


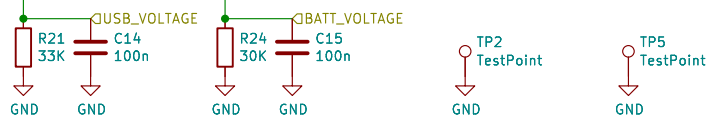
Power consumption estimation:
 STM32 - 50 mA
 ESP32 - 150 mA
 USB2514 - 135 mA
 ADIS16505 - 50 mA
 NEO M8U - 30 mA
 OLED - 10 mA
 uSD card - 50 mA?
 = ~475 mA

HUB mode controlled by I2C SMBUS master:
 CFG_SELO - strap HIGH - strapped by I2C pullup resistor
 CFG_SEL1 - strap LOW

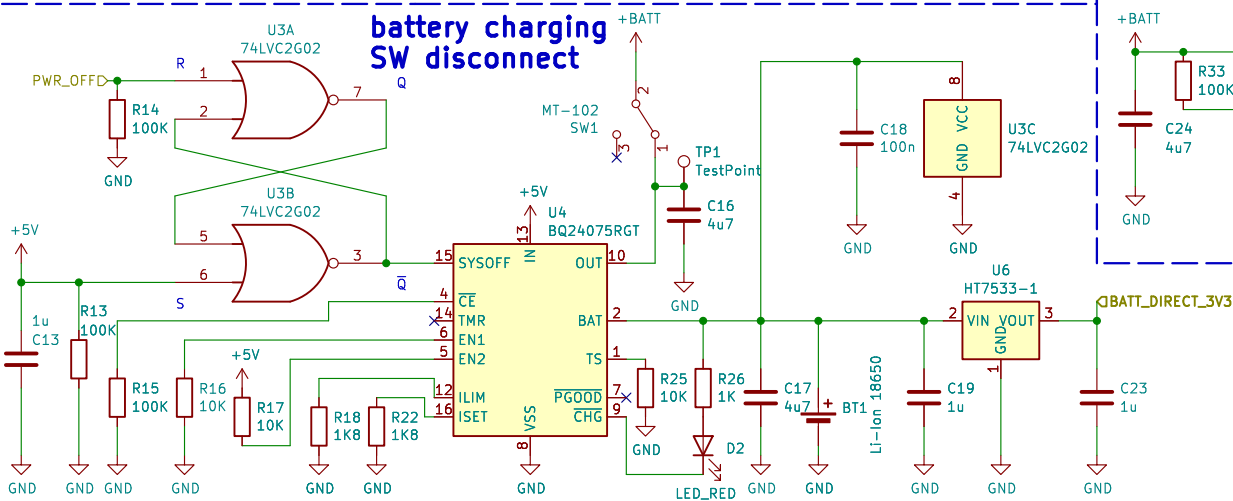
USB + hub



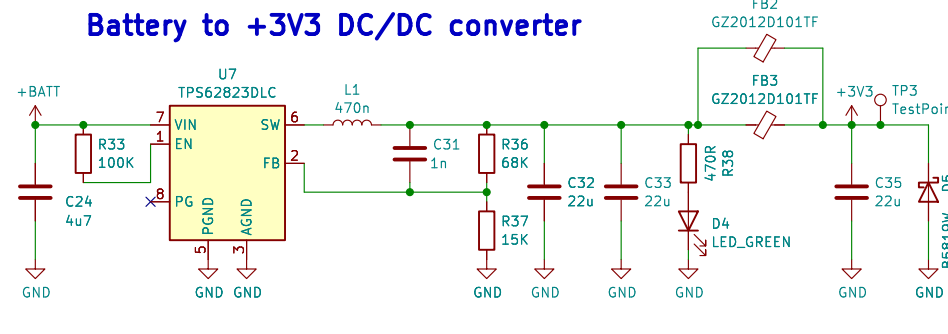
USB + battery voltage sensing



battery charging SW disconnect



Battery to +3V3 DC/DC converter



Inertial navigation unit

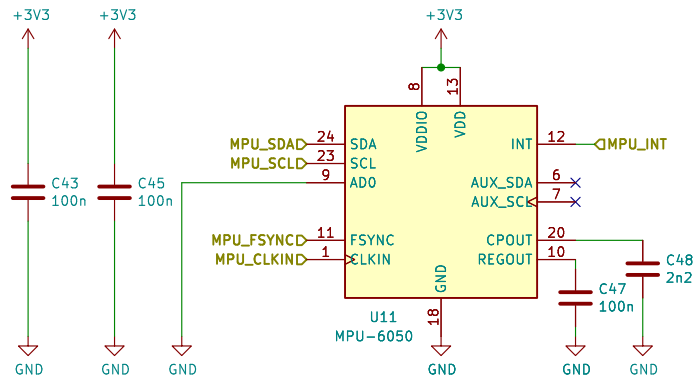
Sheet: /USB+Power/
 File: USB+Power.kicad_sch

Title: IMUnav

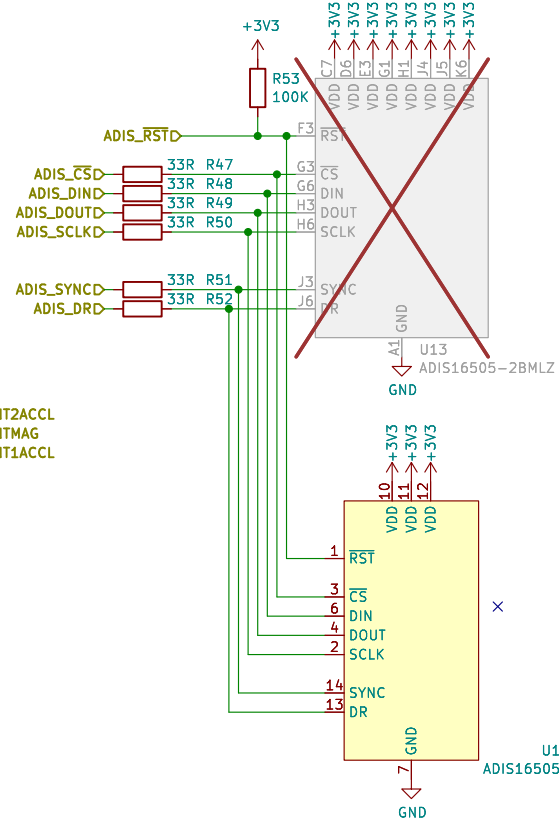
Size: A4 Date: 2023-12-21
 KiCad E.D.A. kicad 7.0.9

Rev: H00
 Id: 2/7

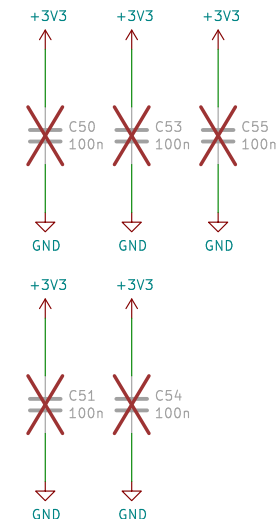
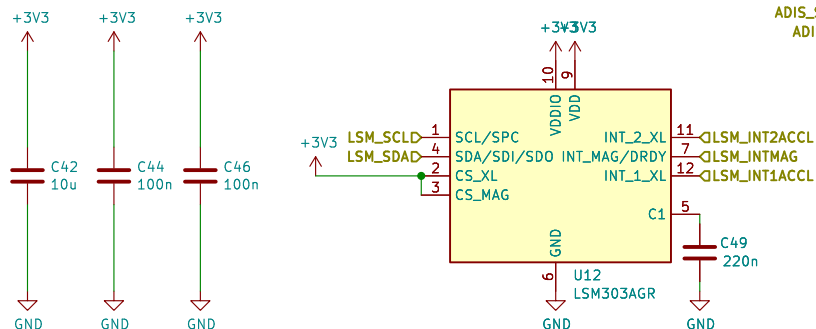
MPU6050 – accel + gyro



ADIS16505 – accel + gyro BGA and PCB version



ALSM3030 – accel + magnetometer



Inertial navigation unit

Sheet: /IMU/
File: IMU.kicad_sch

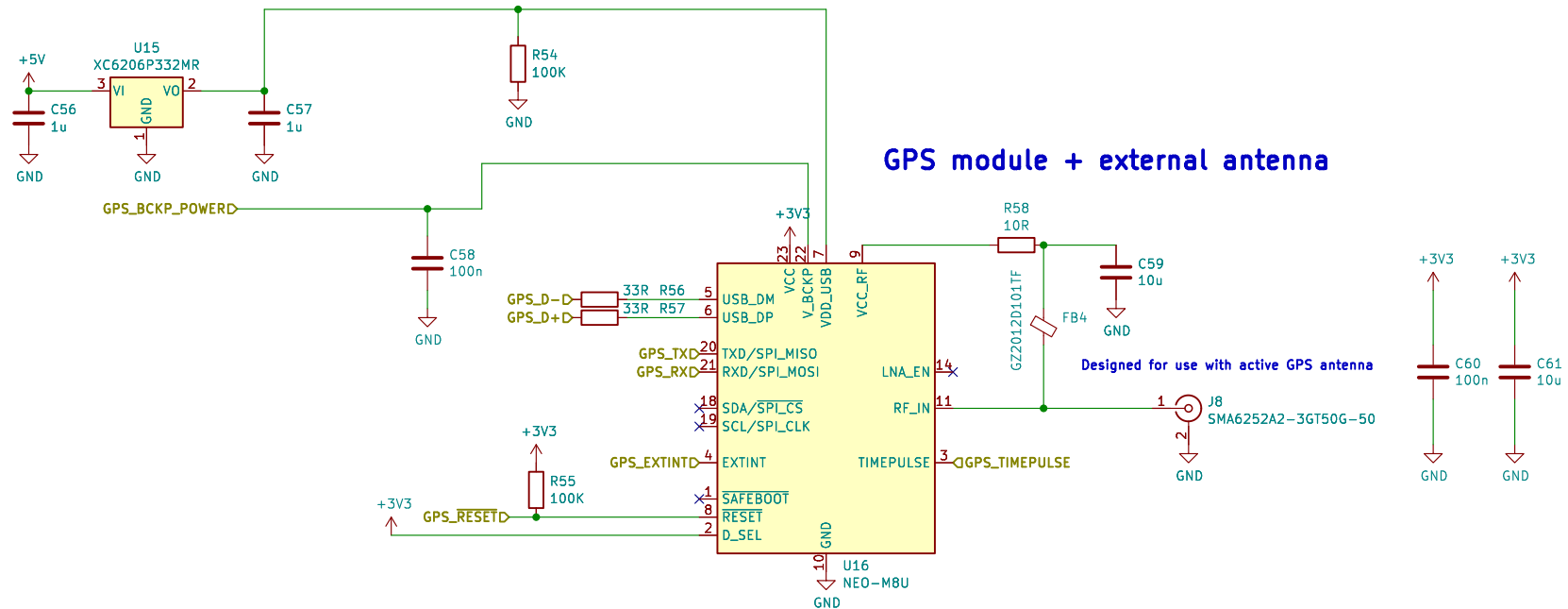
Title: IMUnav

Size: A4 Date: 2023-12-21

KiCad E.D.A. kicad 7.0.9

Rev: H00

Id: 4/7



Inertial navigation unit

Sheet: /GPS/
File: GPS.kicad_sch

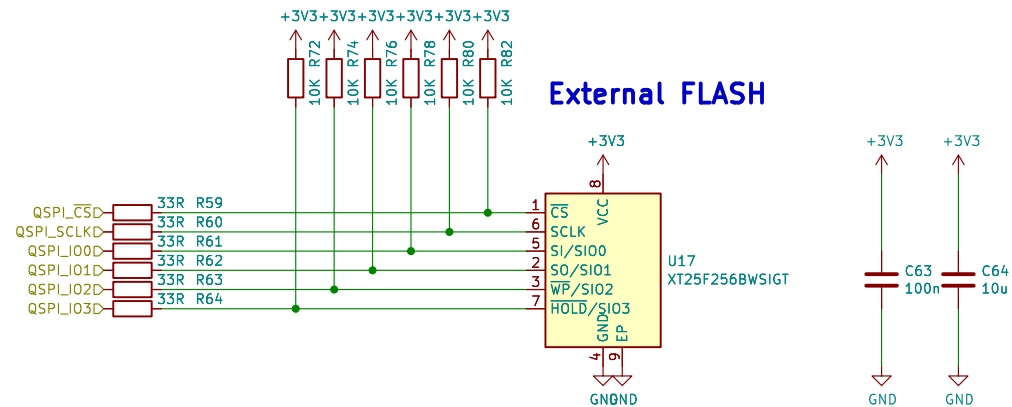
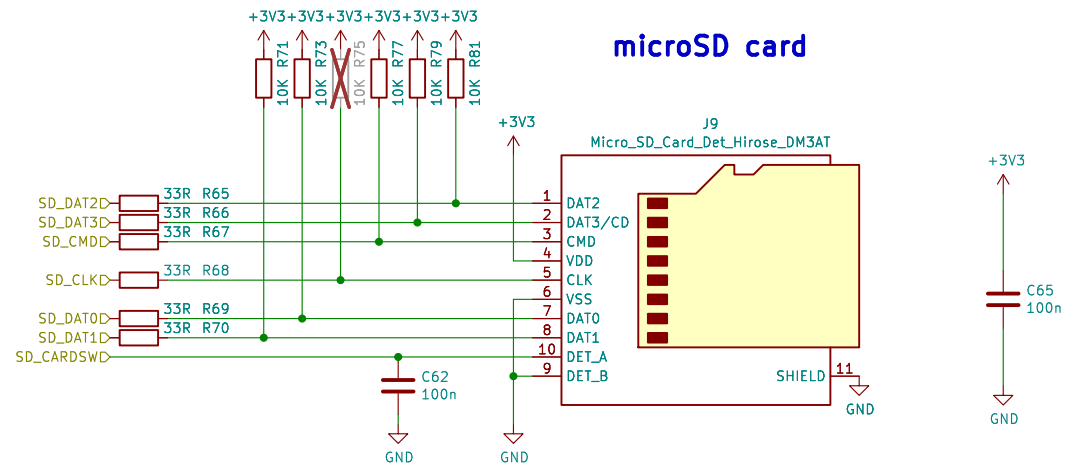
Title: IMUnav

Size: A4 Date: 2023-12-21

KiCad E.D.A. kicad 7.0.9

Rev: H00

Id: 5/7



Inertial navigation unit

Sheet: /Memory/
File: Memory.kicad_sch

Title: IMUnav

Size: A4 Date: 2023-12-21

KiCad E.D.A. kicad 7.0.9

Rev: H00

Id: 6/7

