Linux based scout UAV
Linuxベースのスカウト UAV

Sheetname: osd32mp1-1-power

File: osd32mp1-1-power.kicad_sch

Sheetname: osd32mp1-2

File: osd32mp1-2.kicad_sch

Sheetname: osd32mp1-3

File: osd32mp1-3.kicad_sch

Sheetname: battery-power

File: battery-power.kicad_sch

Sheetname: power-section-1

File: power-section-1.kicad_sch

storage

File: storage.kicad_sch

long-range-radio-1

File: long-range-radio-1.kicad_sch

quectel-m65-1

File: quectel-m65-1.kicad_sch

GNSS

File: gnss.kicad_sch

sensors-1

File: sensors-1.kicad_sch

Sheet: /

File: linux-based-scout-uav.kicad_sch

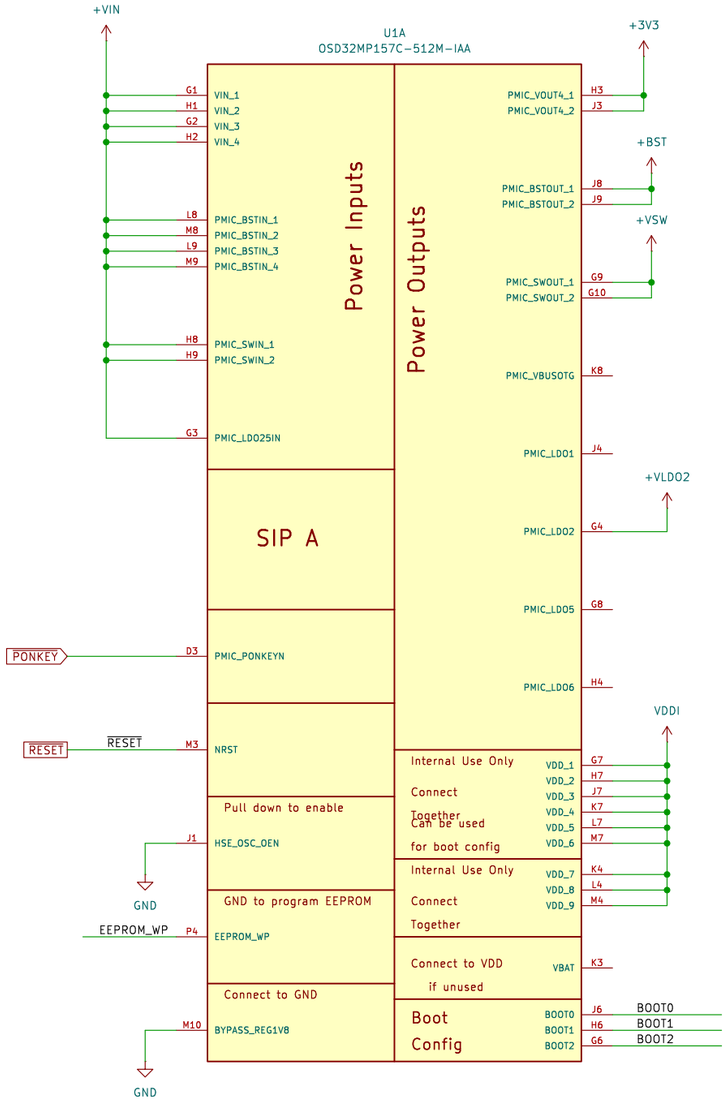
Title:

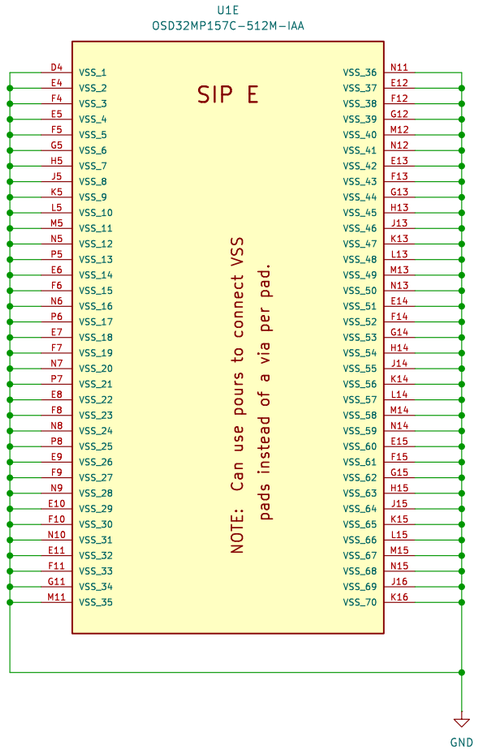
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 1/11

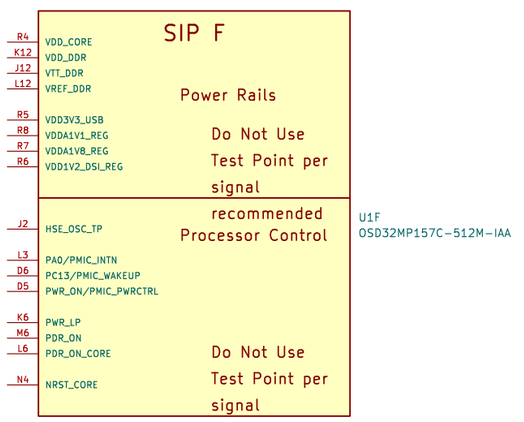
RESET

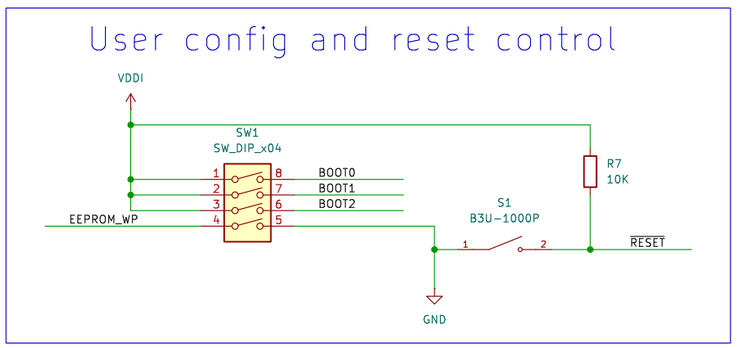
OSD32MP1 power

力









Sheet: /osd32mp1-1-power/		
File: osd32mp1-1-power.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 2/11

OSD32MP1

U1C
OSD32MP157C-512M-IAA

SIP D

DSI
- P17 DSI_D0P
- P18 DSI_D0N
- N17 DSI_D1P
- N18 DSI_D1N
- N16 DSI_CKP
- P16 DSI_CKN

Analog Power
- M1 VDDA
- M2 VREF+
- K2 VREF-
- K1 VSSA

Analog
- L1 ANA0
- L2 ANA1

USB
- K9 OTG_VBUS
- K18 USB_DM1
- K17 USB_DP1
- J17 USB_DM2
- J18 USB_DP2

JTAG
- R14 JTMS-SWDIO
- R15 JTCK-SWCLK
- R13 JTDI
- R12 JTDO-TRACESWO
- R11 NJTRST

R8
Jumper

R9
Jumper

SWDIO/TMS
SWCLK/TCK
TDI
SWO/TDO
TRST

USB_DM1
USB_DP1
USB_DM2
USB_DP2

U1B
OSD32MP157C-512M-IAA

SIP B

PA1 C16
PA2 A15
PA3 A5
PA4 B16
PA5 A16
PA6 B17
PA7 A12
PA8 T17
PA9 U12
PA10 L16
PA11 L17
PA12 L18
PA13 A3
PA14 B3
PA15 T15

PB0 A11
PB1 B11
PB2 M18
PB3 V14
PB4 U14
PB5 C17
PB6 H18
PB7 V12
PB8 T13
PB9 U13
PB10 A13
PB11 A9
PB12 B14
PB13 A14
PB14 T14
PB15 V13

I2C1_SCL
I2C1_SDA

PC0 A17
PC1 B15
PC2 C7
PC3 B6
PC4 B12
PC5 C12
PC6 R18
PC7 R16
PC8 T16
PC9 U16
PC10 V16
PC11 U17
PC12 V17

SDMMC1_D0
SDMMC1_D1
SDMMC1_D2
SDMMC1_D3
SDMMC1_CMD

PC14-OSC32_IN N2
PC15-OSC32_OUT N1

PD0 V11
PD1 U11
PD2 U18
PD3 T11
PD4 V10
PD5 U10
PD6 T10
PD7 U9
PD8 B2
PD9 B1
PD10 V6
PD11 E18
PD12 F16
PD13 F17
PD14 C3
PD15 A2

SDMMC1_CMD

Y1
ABS05-32.768KHZ-7-T

C2
12pF

C1
12pF

GND

JTAG

+3V3

J3
TC2050-IDC-NL

SWDIO/TMS
SWCLK/TCK
RESET
TRST
TDI
SWO/TDO

GND

Do not connect

SIP G
All pins reserved
for future use
Do Not Connect

- D7 RSVD_1
- D8 RSVD_2
- D9 RSVD_3
- P9 RSVD_4
- R9 RSVD_5
- D10 RSVD_6
- P10 RSVD_7
- R10 RSVD_8
- H12 RSVD_9
- M16 RSVD_10

U1G
OSD32MP157C-512M-IAA

Sheet: /osd32mp1-2/
File: osd32mp1-2.kicad_sch

Title:

Size: A3 | Date: | **Rev:**
KiCad E.D.A. 8.0.6 | Id: 3/11

OSD32MP1

U1D
OSD32MP157C-512M-IAA

SIP C

U7	PE0	PH2	B13
T7	PE1	PH3	C13
A6	PE2	PH4	U6
T12	PE3	PH5	T6
R17	PE4	PH6	B5
V15	PE5	PH7	C5
T9	PE6	PH8	T4
D17	PE7	PH9	V3
D18	PE8	PH10	U3
E16	PE9	PH11	V2
E17	PE10	PH12	U2
V5	PE11	PH13	U1
U5	PE12	PH14	T1
T5	PE13	PH15	T2
V4	PE14		
U4	PE15		
U8	PF0	PI0	T3
V8	PF1	PI1	R1
T18	PF2	PI2	R2
C6	PF3	PI3	R3
V7	PF4	PI4	P1
T8	PF5	PI5	P2
F18	PF6	PI6	P3
G16	PF7	PI7	N3
G17	PF8	PI8	C1
G18	PF9	PI9	C2
H16	PF10	PI10	B4
B18	PF11	PI11	C4
C11	PF12		
A10	PF13		
B10	PF14		
C10	PF15		
C8	PG0	PZ0	F1
B8	PG1	PZ1	F2
A8	PG2	PZ2	F3
C9	PG3	PZ3	E1
B9	PG4	PZ4/PMIC_SCL	E2
C15	PG5	PZ5/PMIC_SDA	E3
U15	PG6	PZ6	D1
H17	PG7	PZ7	D2
D16	PG8		
M17	PG9		
C18	PG10		
C14	PG11		
A4	PG12		
B7	PG13		
A7	PG14		
V9	PG15		

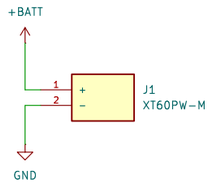
Sheet: /osd32mp1-3/
File: osd32mp1-3.kicad_sch

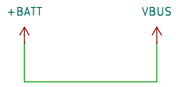
Title:

Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 4/11

Battery Power
バッテリー電源

2S–6S LiPo battery

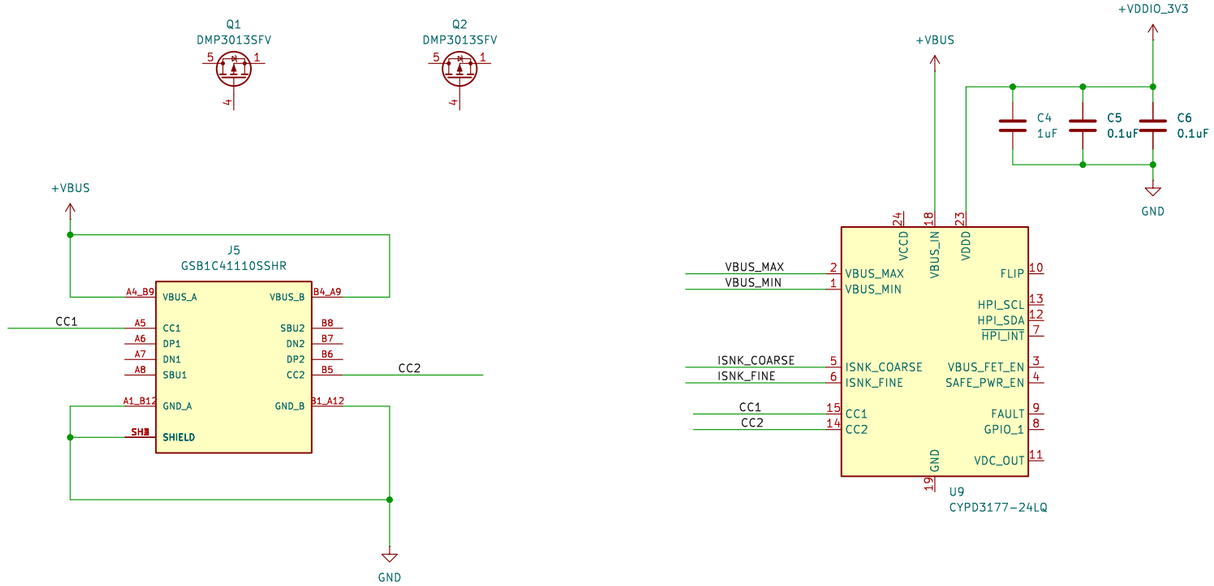


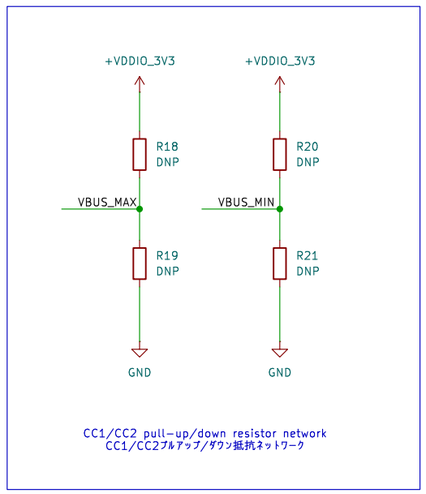


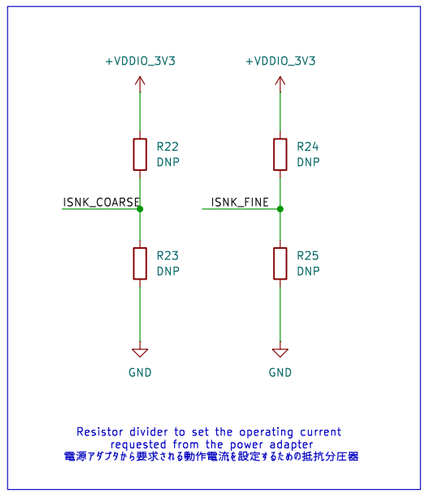
Sheet: /battery–power/
File: battery–power.kicad_sch

Title:

Size: A3 | Date: | **Rev:**
KiCad E.D.A. 8.0.6 | Id: 5/11



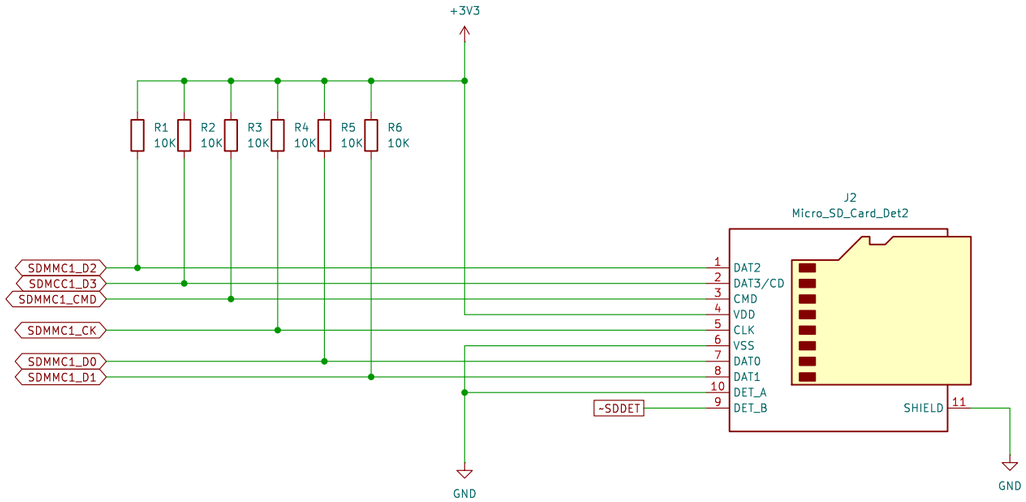


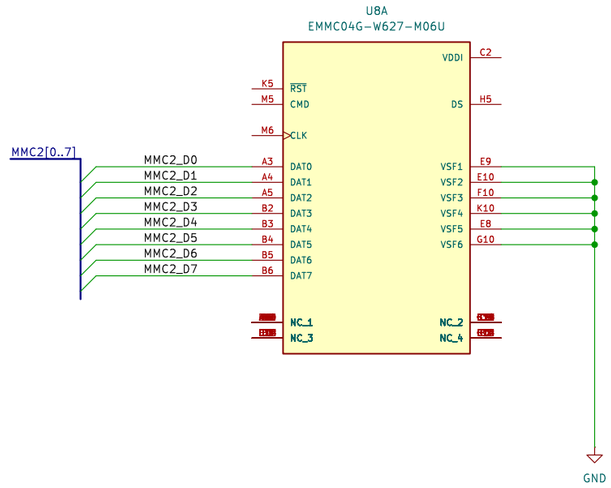


Sheet: /power-section-1/		
File: power-section-1.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 6/11

Storage
貯蔵

SD card

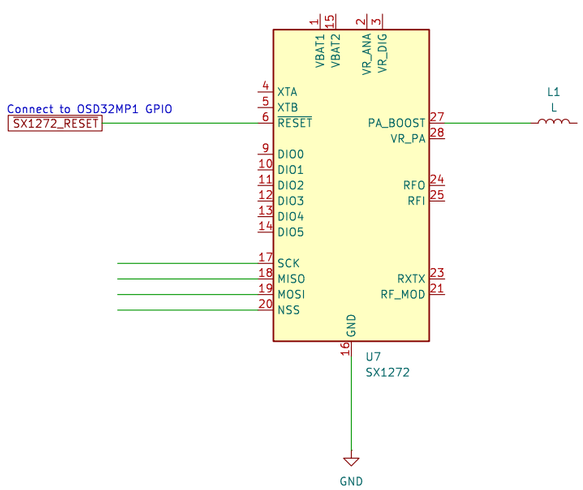




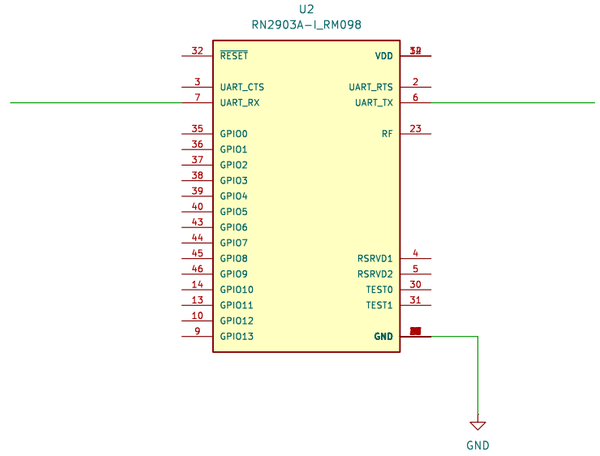
Sheet: /storage/		
File: storage.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 7/11

Long range radio

SX1272 LoRaWAN IC option



RN2903 LoRa module option

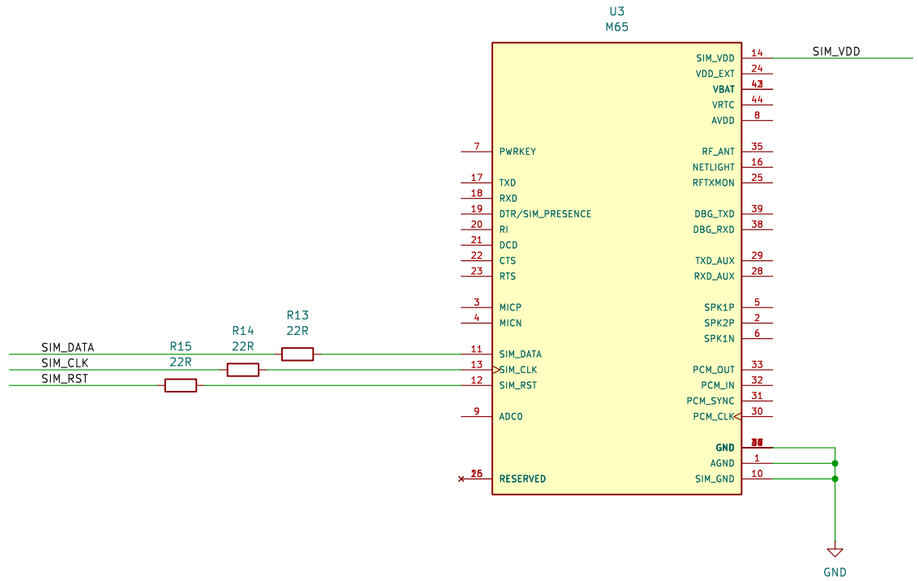


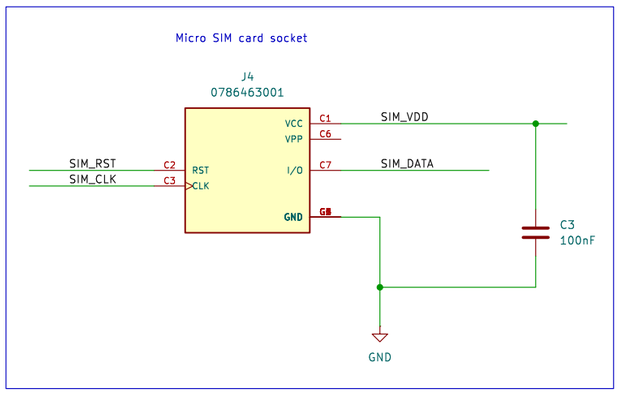
Sheet: /long-range-radio-1/
File: long-range-radio-1.kicad_sch

Title:

Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 8/11

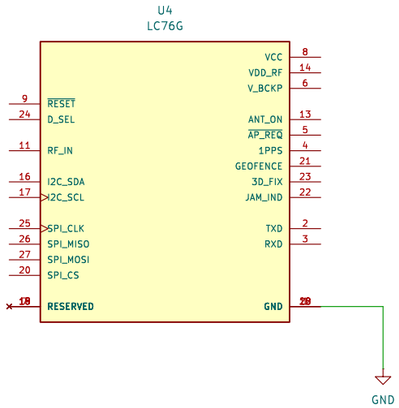
GSM/GPRS 2G Comms





Sheet: /quectel-m65-1/		
File: quectel-m65-1.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 9/11

GNSS



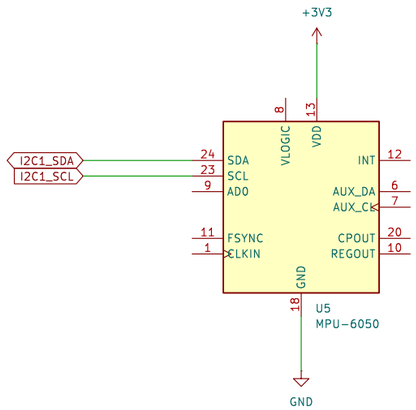
Sheet: /GNSS/
File: gnss.kicad_sch

Title:

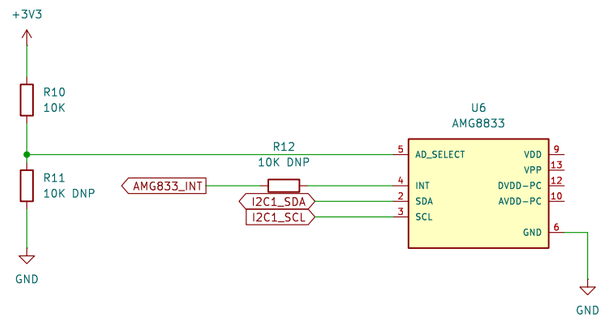
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 10/11

Sensors
センサー

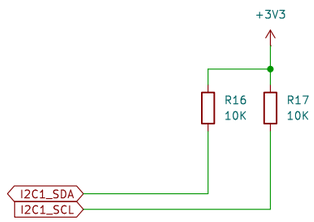
MPU-6050



AMG8833



I2C1 Pull-up resistor



Sheet: /sensors-1/		
File: sensors-1.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. 8.0.6		Id: 11/11