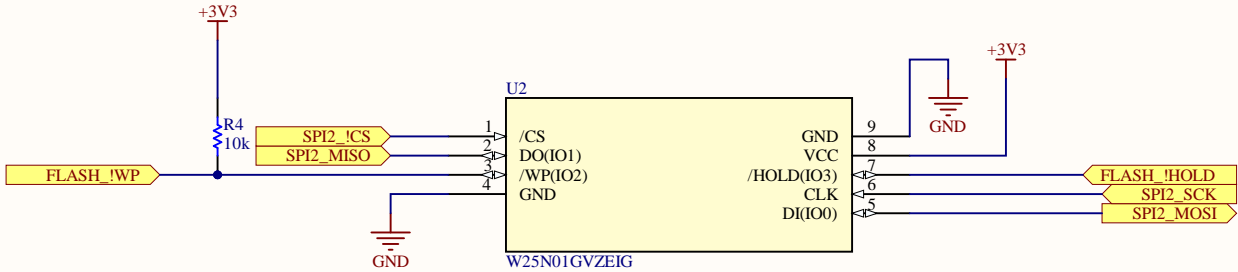
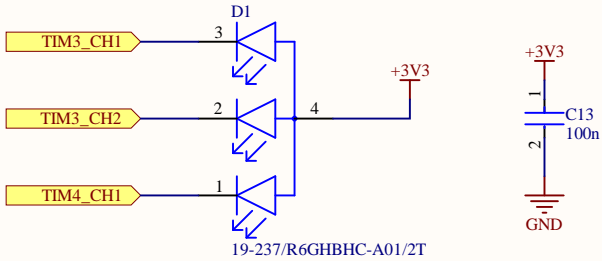


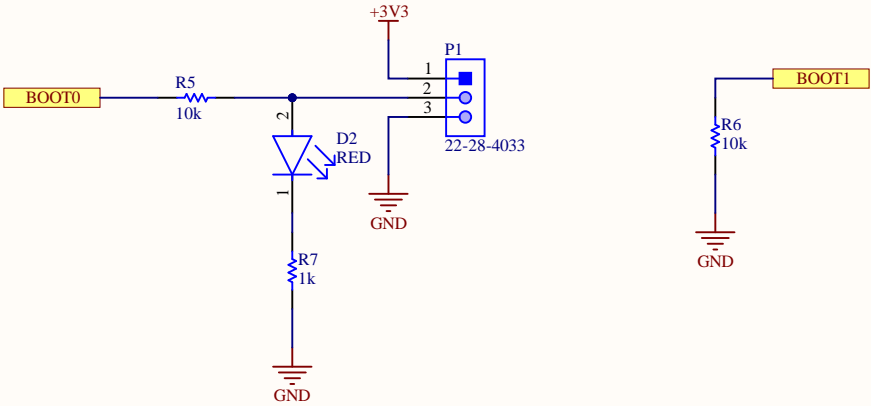
Flash Memory



RGB LED

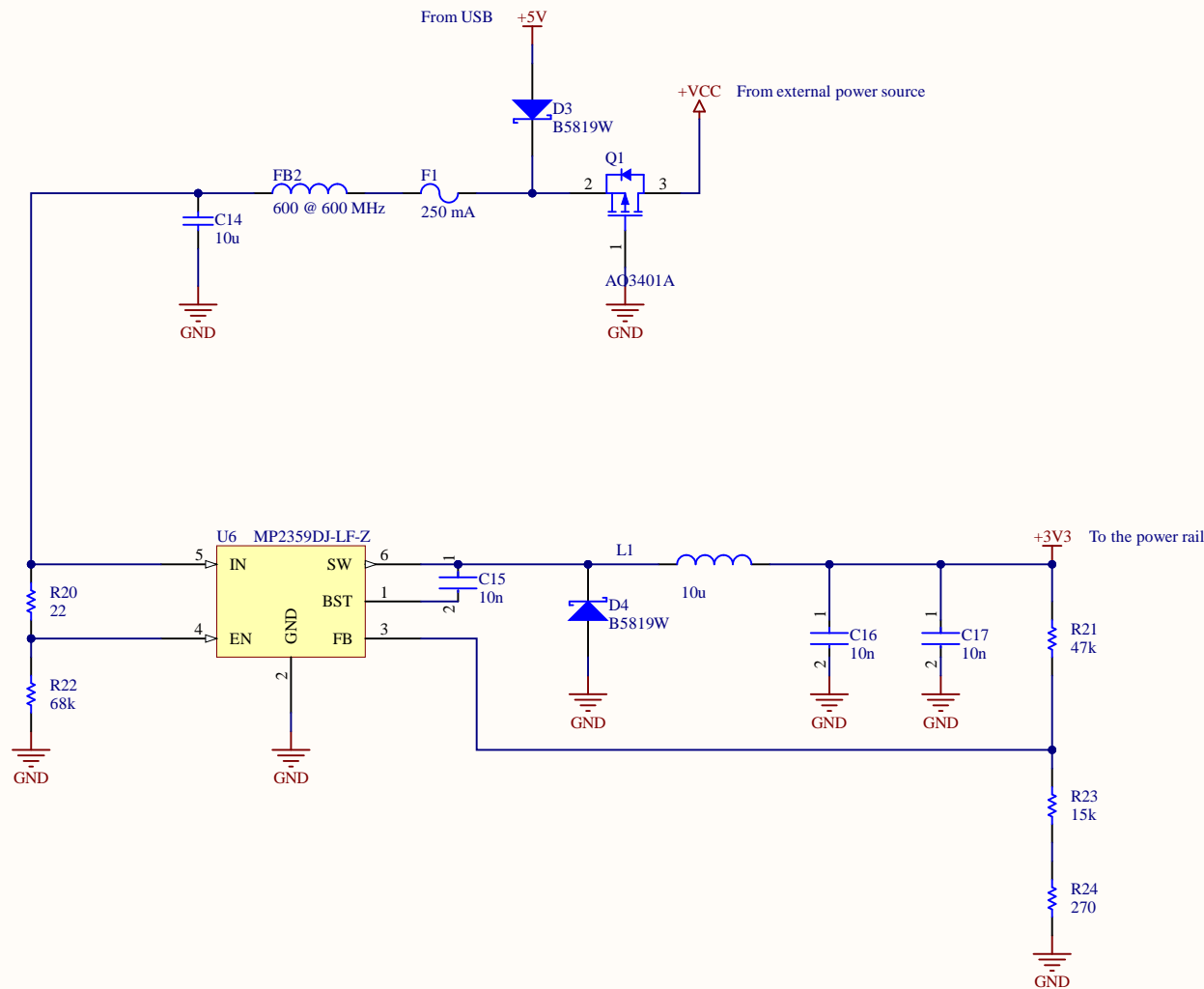


BOOT0



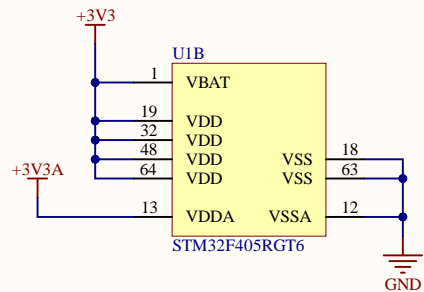
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Flash, RGB & BOOT0		
Size	Number	Revision
A4		
Date:	11/24/2020	Sheet of
File:	D:\garri\...\BootMemory.SchDoc	Drawn By:

Step-down Converter

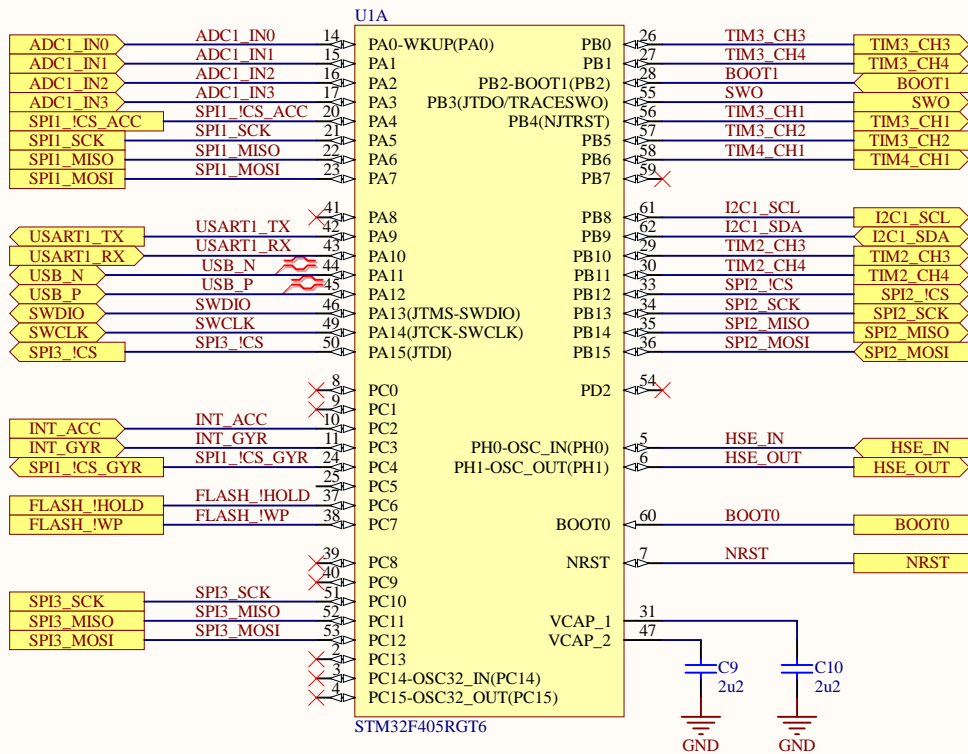
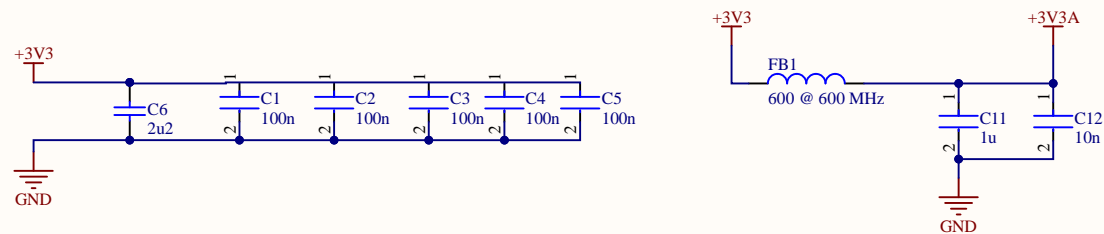


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Step Down Converter		
Size	Number	Revision
A4		
Date:	11/24/2020	Sheet of
File:	D:\garri\...\downConverter.SchDoc	Drawn By:

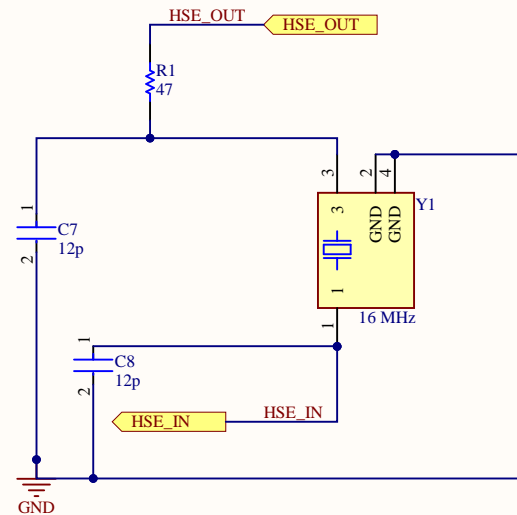
Microcontroller Power Supply



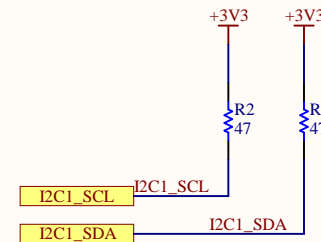
Decoupling



HSE

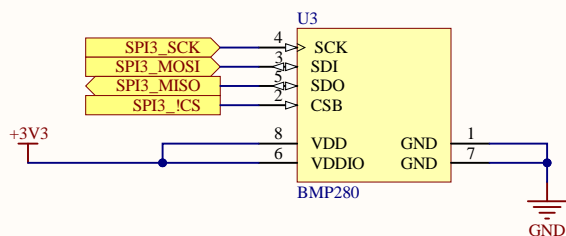


Pull up resistors

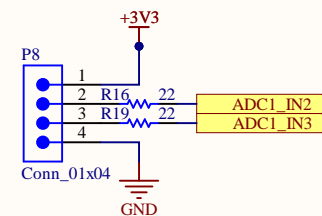
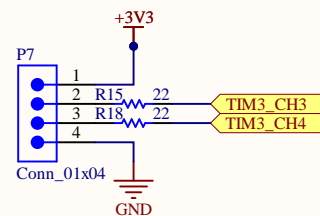
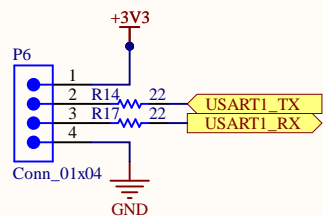
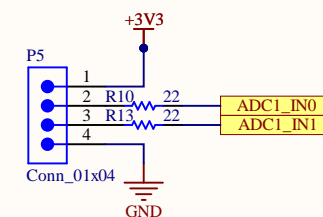
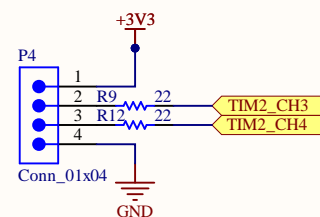
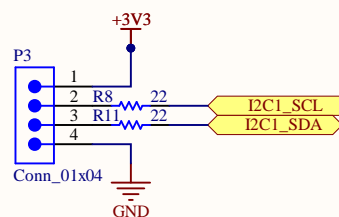
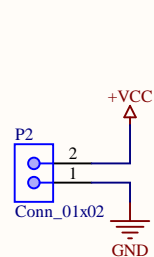
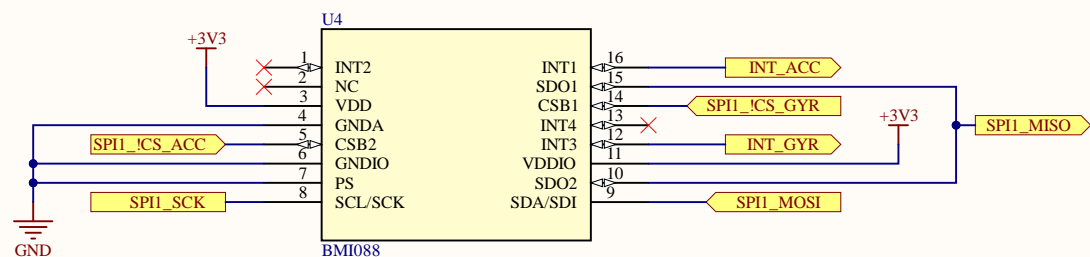


Title Microcontroller			
Size A4	Number		Revision 1
Date:	11/24/2020		Sheet of
File:	D:\garri\...F4FlightController.SchDoc		Drawn By:

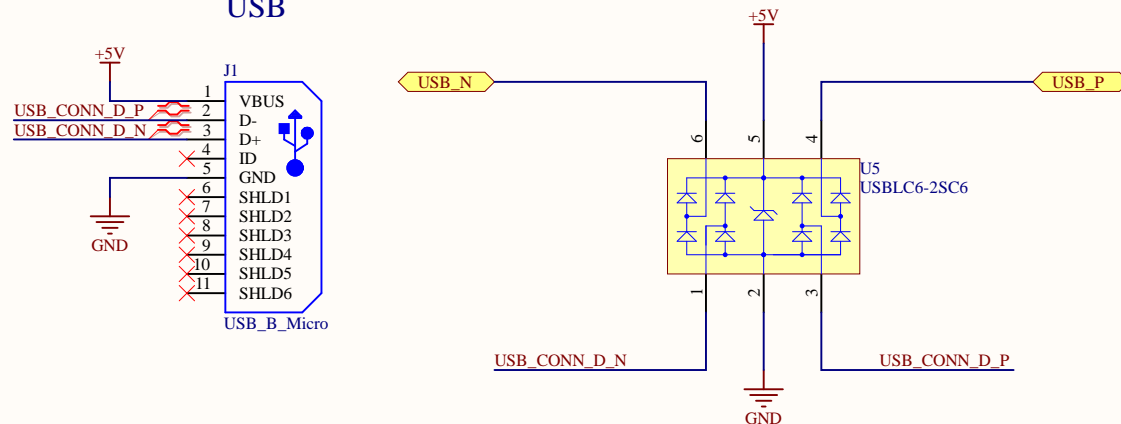
1	2	3	4
A			
B	<div>Boot and Flash BootMemory.SchDoc</div> <div></div>	<div>Sensors Sensors.SchDoc</div> <div></div>	<div>SWD swd.SchDoc</div> <div></div>
C	<div>Flight Controller F4FlightController.SchDoc</div> <div></div>	<div>Step Down Converter downConverter.SchDoc</div> <div></div>	
D			<div>Title</div> <div><div>Size A4</div><div>Number</div><div>Revision</div></div> <div><div>Date:11/24/2020</div><div>Sheet of</div></div> <div><div>File:D:\garri\...\Index.SchDoc</div><div>Drawn By:</div></div>
1	2	3	4



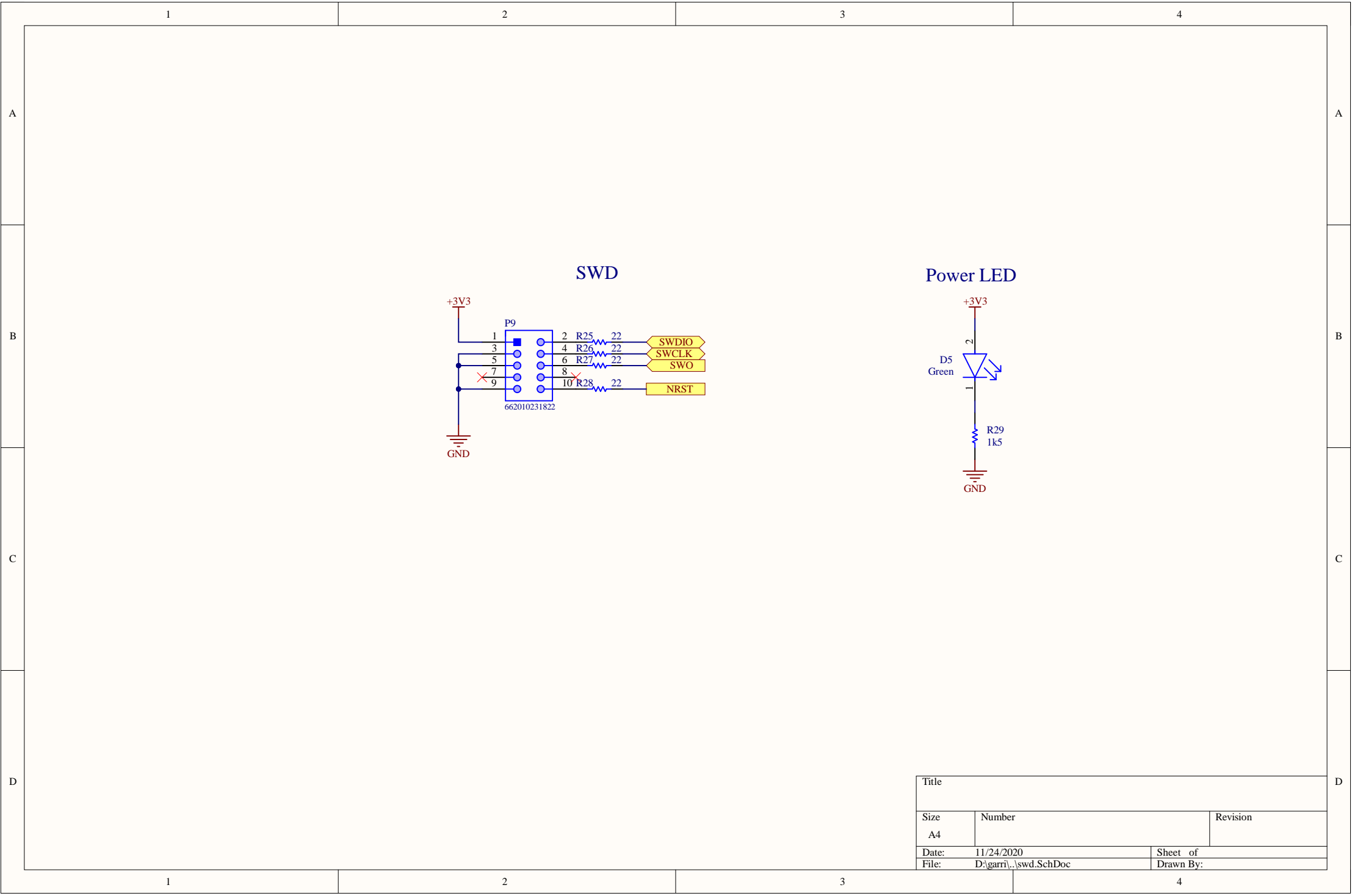
Inertial Measurement Unit



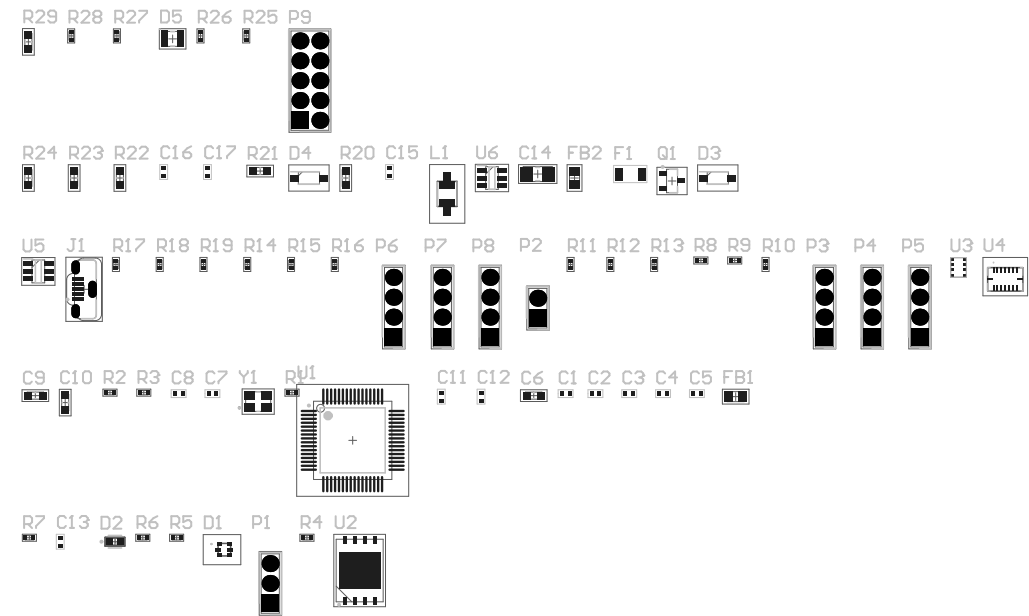
USB



Title Sensors, Connectors		
Size A4	Number	Revision
Date:	11/24/2020	Sheet of
File:	D:\garri\...\Sensors.SchDoc	Drawn By:



Title		
Size	Number	Revision
A4		
Date:	11/24/2020	Sheet of
File:	D:\garri\...\swd.SchDoc	Drawn By:



Comment	Description	Designator	Footprint	LibRef	Quantity
100n	Chip Capacitor 0402	C1, C2, C3, C4, C5, C13	Capacitor 0402	Capacitor 0402	6
2u2	Chip Capacitor, 22 pF, +/- 5%, 50 V, -55 to 125 degC, 0603 (1608 Metric), RoHS, Tape and Reel	C6, C9, C10	CAPACITOR 0603	Chip Capacitor 0603, Capacitor 0603	3
12p	Chip Capacitor 0402	C7, C8	Capacitor 0402	Capacitor 0402	2
1u	Chip Capacitor 0402	C11	Capacitor 0402	Capacitor 0402	1
10n	Chip Capacitor 0402	C12, C15, C16, C17	Capacitor 0402	Capacitor 0402	4
10u	Chip Capacitor, 1206	C14	Capacitor 1206	Capacitor 1206	1
19-237/R6GHBHC-A01/2T	LED RGB CLEAR CHIP SMD R/A	D1	19337R6GHBHC-A012T	LED RGB	1
RED	LED GREEN CLEAR CHIP SMD	D2	FP-LTST-C190GKT-MFG	OMP-22017-000005-1	1
B5819W	Schottky Barrier Rectifier, 20 V, 1 A, -65 to 150 degC, 2-Pin DO-214AC (SMA), RoHS, Tape and Reel	D3, D4	SOD3716K135N	Schottky Barrier Rectifier	2
Green	LED 0805	D5	Led 0603	LED 0805	1
250 mA	NANO2(R) Sio-Bio(R) Fuse, 0.5 A, 125 V, -55 to 125 degC, 2-Pin SMD, RoHS, Tape and Reel	F1	Fuse 1206	Fuse 1206	1
600 @ 600 MHz	Ferrite Bead Murata BLM21AG601SNTD	FB1, FB2	Inductor 0805	Ferrite Bead	2
USB_B_Micro	Micro USB B Type Receptacle, -55 to 85 degC, 5-Pin SMD, RoHS, Tape and Reel	J1	MOLX-105133-0001_V	USB_B_Micro	1
10u	LQH32CN100K33L 10uh	L1	LQH32DN100K23L	Fixed Inductor	1
22-28-4033	Male Header, Pitch 2.54 mm, 1 x 3 Position, Height 8.38 mm, Tail Length 3.18 mm, RoHS, Bulk	P1	HDRV10W90P254_1X3_1270X483X840P	Male Header 01x03	1
Conn_01x02	Male Header, Pitch 2.54 mm, 1 x 2 Position, Height 8.21 mm, Tail Length 3.05 mm, -65 to 105 degC, RoHS, Bulk	P2	HDRV10W90P254_1X2_1270X483X840P	Male Header 01x02	1
Conn_01x04	Horizontal Surface Mount Header, -55 to 125 degC, 2 mm Pitch, 4-Pin, Male, RoHS	P3, P4, P5, P6, P7, P8	HDRV10W90P254_1X4_1270X483X840P	Male Header 01x04	6
662010231822	SMT Male Header WR MPC3, with SMT Solder Tabs, Vertical, Dual Row, pitch 3 mm, 10 pins	P9	HDRV10W90P254_2X5_1270X483X840P	Male Header 02x05	1
AO3401A	P-Channel MOSFET, 30 V, 4 A, -55 to 150 degC, 3-Pin SOT-23-3L, RoHS, Tape and Reel	Q1	SOT95P245X110-3N	P-Channel MOSFET	1
47	Chip Resistor 0402	R1, R2, R3	Resistor 0402	Resistor 0402	3
10k	Chip Resistor 0402	R4, R5, R6	Resistor 0402	Resistor 0402	3
1k	Chip Resistor 0402	R7	Resistor 0402	Resistor 0402	1
22	Chip Resistor 0402	R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R25, R26, R27, R28	Resistor 0402	Resistor 0402	16
22	Chip Resistor 0603	R20	RESISTOR 0603	Resistor 0603	1
47k	Chip Resistor 0603	R21	RESISTOR 0603	Resistor 0603	1
68k	Chip Resistor 0603	R22	RESISTOR 0603	Resistor 0603	1
15k	Chip Resistor 0603	R23	RESISTOR 0603	Resistor 0603	1
270	Chip Resistor 0603	R24	RESISTOR 0603	Resistor 0603	1
1k5	Chip Resistor 0603	R29	RESISTOR 0603	Resistor 0603	1
STM32F405RGT6	ARM Cortex-M4 32-bit MCU+FPU, Z10 DMIIPS, 1024 kB Flash, 192 kB Internal RAM, 51 I/Os, 64-pin LQFP, -40 to 85 degC, Tray	U1	STM-LQFP64_M	STM32 ARM Cortex-M4	1
W25N01GVZEIG	Flash memory	U2	SON127P800X600X80-9N-D	W25N01GVZEIG	1
BMP280	Digital Pressure Sensor,	U3	8-PIN-METAL-LID-LGA	BMP280	1
BM088	Inertial Measurement Unit BOSCH	U4	BM088	BM088	1
USBLC6-25C6	Very low capacitance ESD protection, 3.5 pF, -40 to 125 degC, 6-Pin SOT23, RoHS, Tape and Reel	U5	SOT95P280X145-6N	ESD protection	1
MP2359D1-LF-Z	Regulator	U6	SOT95P280X100-6N	MP2359D1-LF-Z	1
16 MHz	16MHz \pm 10ppm Crystal 9pF 60 Ohms 4 SMD, No Lead	Y1	XTAL_TSX-3225_16.0000MF18X-AC3	TSX-3225_16.0000MF18X-AC3	1