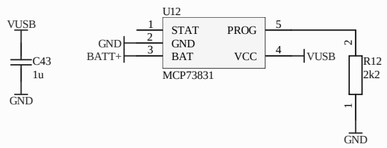
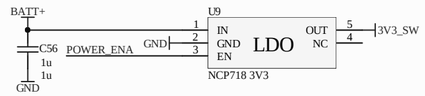
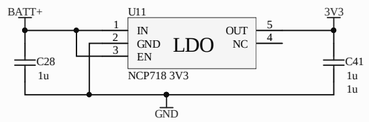
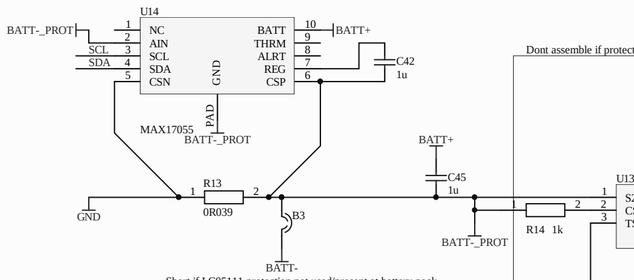
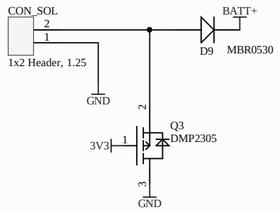
Power management

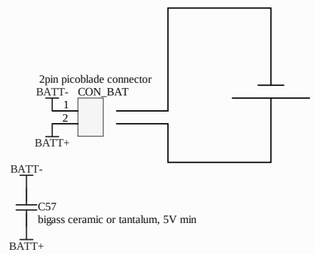




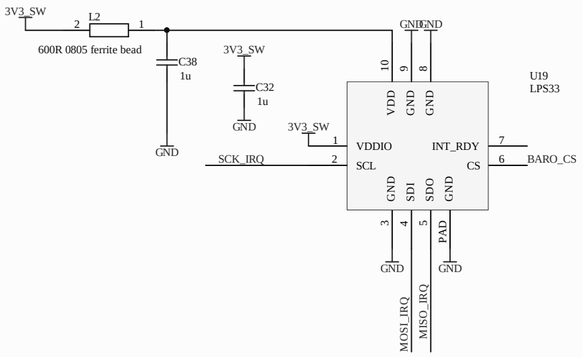


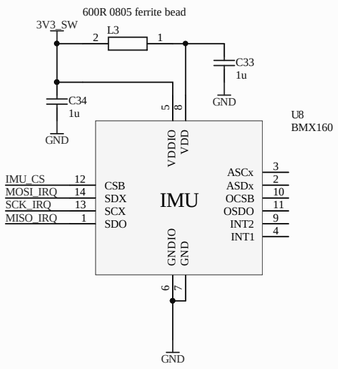


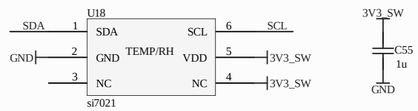


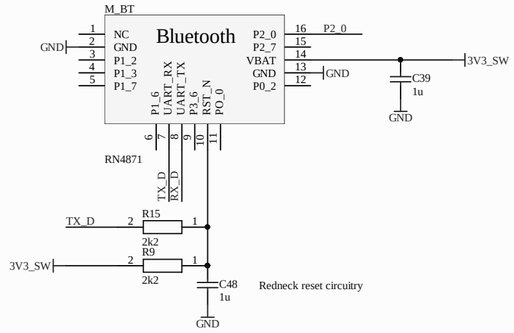


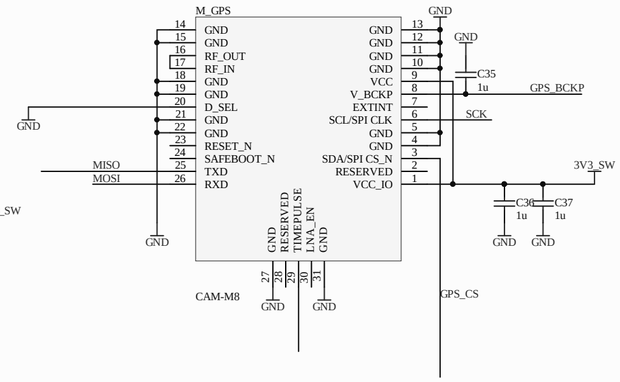
Sensors and modules











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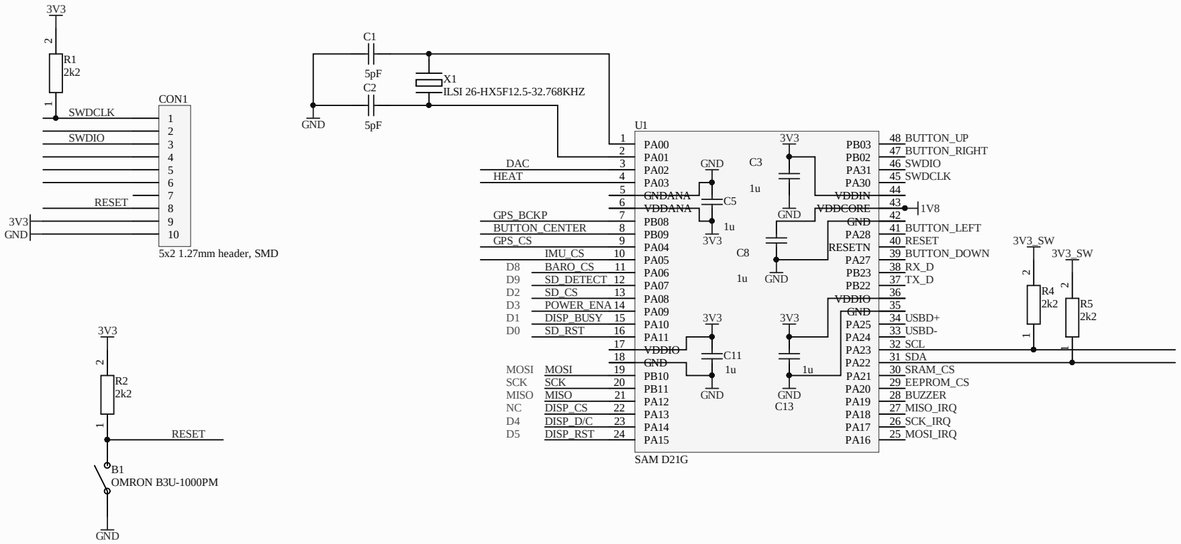
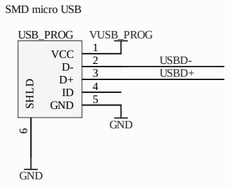
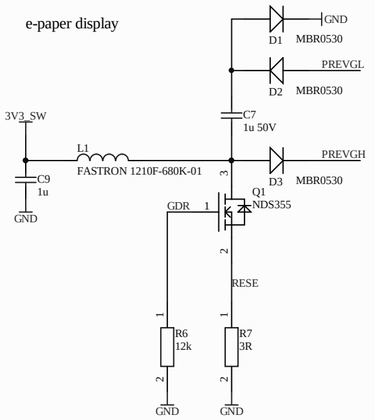
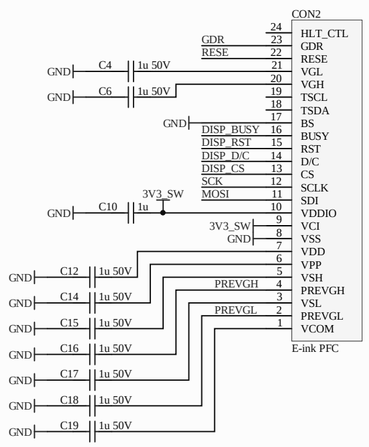
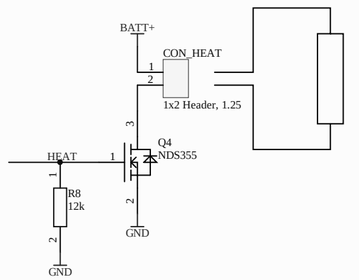


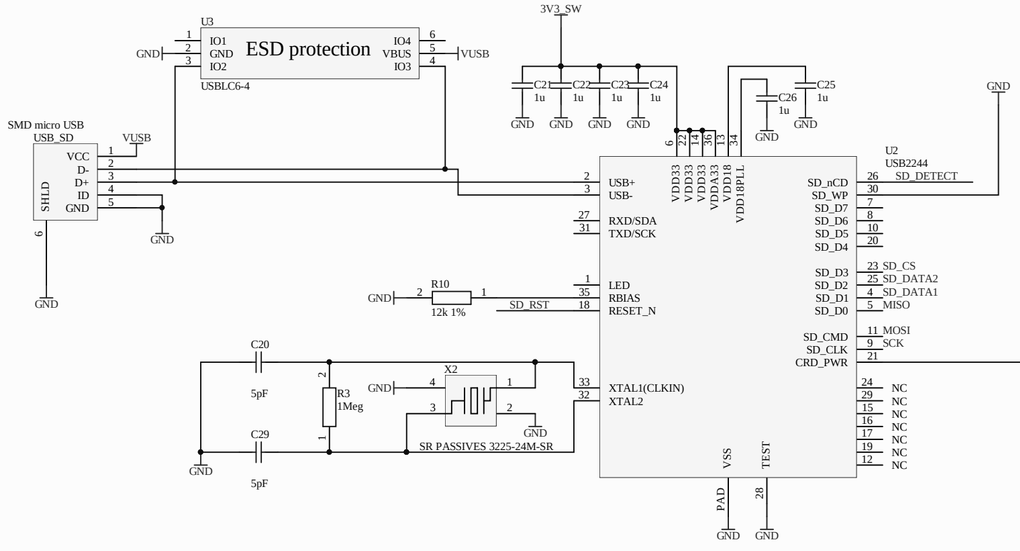


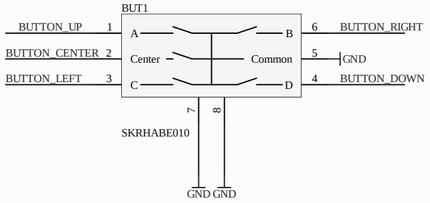




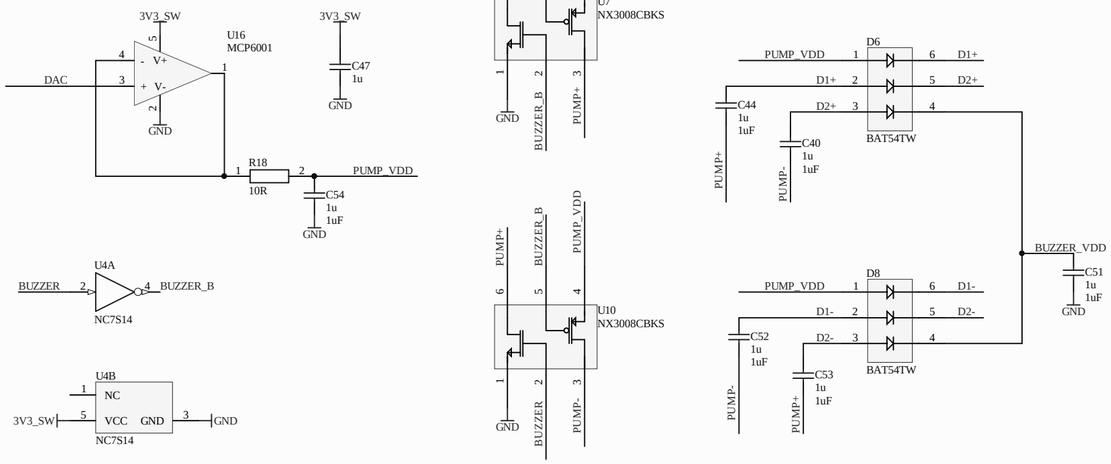


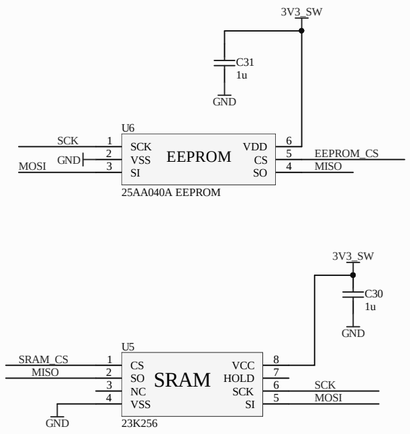
SD card + card reader





BUZZER





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Designator	Comment	Description	Quantity
B1	OMRON B3U-1000PM	OMRON B3U-1000PM	1
B3	Short if LC05111 protection not used/present at battery pack	Solder bridge	1
BUT1	SKRHABE010	5-way joystick	1
C1, C2, C20, C29	5p	0603	4
C3, C5, C8, C9, C10, C11, C13, C21, C22, C23, C24, C25, C26, C27, C28, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C51, C52, C53, C54, C55, C56	1u	0603	40
C4, C6, C7, C12, C14, C15, C16, C17, C18, C19	1u 50V	0603	10
C49, C50	10n	0603	2
C57	bigass ceramic or tantalum, 5V min	1206	1
CON1	5x2 1.27mm header, SMD	programming connector for uC	1
CON2	E-ink PFC	OMRON XF2W24151AR100	1
CON_BAT	2pin picoblade connector		1
CON_BUZ	1x2 Header, 1.25mm		1
CON_HEAT, CON_SOL	1x2 Header, 1.25	90deg angle, [NoValue]	2
D1, D2, D3, D9	MBR0530	SOD−123 shottky diode	4
D4, D7	2V7 zener	micromelf	2
D6, D8	BAT54TW	SC70 3x zener diode	2
L1	FASTRON 1210F-680K-01	1210F-680K-01	1
L2, L3	600R 0805 ferrite bead	0805	2
M_BT	RN4871	bluetooth module	1
M_GPS	CAM-M8	u-blox CAM GNSS antenna module	1
Q1, Q4	NDS355	N-FET transistor	2
Q2, Q3	DMP2305	P-FET transistor	2
R1, R2, R4, R5, R9, R12, R15	2k2	0805	7
R3	1Meg	0805	1
R6, R8	12k	0805	2
R7	3R	0805	1
R10	12k 1%	0805	1
R11	680R	0805	1
R13	0R039	0805	1
R14	1k	0805	1
R18	10R	0805	1
SD1	microSD slot ATTEND 112I-TDAR-R	ATTEND 112I-TDAR-R	1
U1	SAM D21G	Atmel ARM M0+ uC	1
U2	USB2244	SD card reader	1
U3	USBLC6-4	ESD protection	1
U4	NC7S14	SOT23-5 single Inverter	1
U5	23K256	SPI SRAM	1
U6	25AA040A EEPROM	SPI eeprom	1
U7, U10, U15, U17	NX3008CBKS	SC70 N/P dual mos	4
U8	BMX160	IMU mems unit	1
U9, U11	NCP718 3V3	SOT23 3.3V LDO regulator	2
U12	MCP73831	SOT23 linear battery charging controller	1
U13	LC05111	Battery protection circuit	1
U14	MAX17055	Battery monitoring gauge	1
U16	MCP6001	SOT23 R-R opamp	1
U18	si7021	temp and humidity sensor	1
U19	LPS33	barometer	1
USB_PROG, USB_SD	SMD micro USB		2
X1	ILSI 26-HX5F12.5-32.768KHZ		1
X2	SR PASSIVES 3225-24M-SR	SR PASSIVES 3225-24M-SR	1