

Reference	Quantity	Description	value	footprint	Manufacturer	Manufacturer PN	Distributor (Link)	Distributor PN
BT1	1	HOLDER BATTERY COIN 20MM DIA THM	BATT_HOLDER	CR2032	Keystone Electronics	3003	Digikey	3003K-ND
BT2	1	BATTERY LITHIUM COIN 3V 20MM	BATT_COIN	--	Panasonic - BSG	CR2032	Digikey	P189-ND
C1,C4,C5,C7,C8,C9,C10,C11,C12,C13,C14,C17,C18,C20,C23,C28,C29,C31,C32,C34,C39,C40,C41,C43,C44	25	CAP CER 0.1UF 100V 10% X7R 0805	100nF, 100V	0805 (2012 Metric)	Samsung Electro-Mechanics America, Inc	CL21B104KCC5PNC	Digikey	1276-2447-1-ND
C19,C33	2	CAP CER 22UF 25V 10% X7R 1210	22uF X7R	1210 (3225 Metric)	Samsung Electro-Mechanics America, Inc	CL32B226KAJNNNE	Digikey	1276-3392-2-ND
C2,C3	2	CAP CER 22PF 50V 5% NP0 0603	22pF, 50V	0603 (1608 Metric)	Samsung Electro-Mechanics America, Inc	CL10C220JB8NNNC	Digikey	1276-1023-1-ND
C21,C35	2	CAP CER 3300PF 50V 10% X7R 0805	3.3nF, 50V	0805 (2012 Metric)	Samsung Electro-Mechanics America, Inc	CL21B332KBANNNC	Digikey	1276-1260-1-ND
C22,C26,C27,C36,C37,C42	6	CAP ALUM 100UF 35V 20% SMD	100uF, 35V	Radial, Can – SMD, 0.260" L x 0.260" W (6.60mm x 6.60mm)	Nichicon	UWT1V101MCL1GS	Digikey	493-2203-1-ND
C30,C38	2	CAP CER 10UF 35V 10% X7R 1206	10uF, 35V	1206 (3216 Metric)	Samsung Electro-Mechanics America, Inc	CL31B106KLHNNNE	Digikey	1276-3103-1-ND
D1,D3,D4,D9	4	DIODE GEN PURPOSE 200V 1A SMA	S1D-13-F	DO-214AC, SMA	Diodes Inc	S1D-13-F	Digikey	S1D-FDICT-ND
D5	1	LED MINI TOPLED GREEN 570NM SMD	LED 5V0	2-SMD, J-Lead	OSRAM Opto Semiconductors Inc	LG M67K-H1J2-24-Z	Digikey	475-2730-1-ND
D6	1	LED MINI TOPLED GREEN 570NM SMD	LED 3V3	2-SMD, J-Lead	OSRAM Opto Semiconductors Inc	LG M67K-H1J2-24-Z	Digikey	475-2730-1-ND
D7	1	LED MINI TOPLED GREEN 570NM SMD	LED BLINK	2-SMD, J-Lead	OSRAM Opto Semiconductors Inc	LG M67K-H1J2-24-Z	Digikey	475-2730-1-ND
D8	1	LED MINI TOPLED GREEN 570NM SMD	LED 12V	2-SMD, J-Lead	OSRAM Opto Semiconductors Inc	LG M67K-H1J2-24-Z	Digikey	475-2730-1-ND
J1	1	CONN HEADER .100" SNGL STR 2POS	5V_EXT	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PRPC002SFAN-RC	Digikey	S1211EC-02-ND
J2	1	CONN HEADER .100" SNGL STR 2POS	3V3_EXT	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PRPC002SFAN-RC	Digikey	S1211EC-02-ND
J3	1	CONN HEADER 4POS .100 STR TIN	addr	Through hole, 0.100" (2.54mm)	FCI	67997-404HLF	Digikey	609-3242-ND

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L1,L2	2	Power Inductor 2.2 uH 20 % 8 A	2.2uH	4.3 mm W x 4.3 mm L x 2.1 mm H	Coilcraft	XFL4020-222MEB	Mouser	994-XFL4020-222MEB
P11	1	CONN HEADER .100" SNGL STR 3POS	VSeI_Vlv	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC003SAAN-RC	Digikey	S1012EC-03-ND
P13	1	CONN HEADER .100" SNGL STR 2POS	PWR_IN	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PRPC002SFAN-RC	Digikey	S1211EC-02-ND
P14	1	Miniature Pneumatic Solenoid Valve	X_VALVE	8mm Solenoid Valve	Parker Hannifin	X-1-05-S-F	Parker Hannifin	X-1-05-S-F
P15	1	CONN HEADER 4POS 2MM R/A SMD	Flow_Conn	Surface Mount, Right Angle	Molex Inc	5023520400	Digikey	WM7171CT-ND
P16	1	Low-Pressure-Drop Flow Meter SFM3000	FLOWMETER	custom	Sensiron	SFM3000	Sensiron	SFM3000
P17	1	Pump_P54E01R_02	PUMP	custom	Oken Seiko	P54E01R	Oken Seiko	P54E01R
P18	1	Pump Cable	Pump Cable	--				
P21,P22	2	CONN HEADER .100" DUAL STR 56POS	CONN_23X2	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC028DFAN-RC	DigiKey	S2212EC-28-ND
P24	1	CONN POWER JACK MALE 2.5MM CLSD	PWR_IN	Through Hole, Right Angle, 2.5mm ID, 5.5mm OD	CUI Inc	PJ-002B	DigiKey	CP-002B-ND
P31	1	Flowmeter Cable		--				
P34	1	CONN HEADER .100" SNGL STR 3POS	VSeI_Vlv2	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC003SAAN-RC	Digikey	S1012EC-03-ND
P38	1	Miniature Pneumatic Solenoid Valve	X_Valve2	8mm Solenoid Valve	Parker Hannifin	X-1-05-S-F	Parker Hannifin	X-1-05-S-F
P4	1	CONN HEADER .100" DUAL STR 6POS	Header_ISP	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC003DAAN-RC	Digikey	S2012EC-03-ND
P5	1	CONN HEADER .100" SNGL STR 6POS	Header_FTDI	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC006SAAN-RC	Digikey	S1012EC-06-ND
P7	1	Miniature amplified pressure sensor	GAGE_PR	HCEM500GUH9P3	SensorTechnics	HCEM500GUH9P3	SensorTechnics	HCEM500GUH9P3
P8	1	Amplified pressure sensor	ABSO_PR	HDIB002AUY8H5	SensorTechnics	HDIB002AUY8H5	SensorTechnics	HDIB002AUY8H5
P9,P10	2	CONN HEADER .100" SNGL STR 4POS	C3SB	Through hole, 0.100" (2.54mm)	Sullins Connector Solutions	PREC004SAAN-RC	Digikey	S1012EC-04-ND
Q1,Q2,Q3,Q4	4	TRANS NPN 45V 1A 2W SOT223	BCP5416TA	SOT-223	Diodes Inc	BCP5416TA	Digikey	BCP5416TACT-ND
Q5	1	MOSFET NCH 60V 310MA SOT323	2N7002KW	SOT-323	Fairchild Semiconductor	2N7002KW	Digikey	2N7002KWCT-ND
R1,R2,R3,R4,R11,R15,R21,R22,R26,R27	10	RES 10K OHM 1/8W 5% 0805	10k	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-ND
R16,R17,R18,R23	4	RES 4.75K OHM 1/8W 1% 0805	4k75	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805FT4K75	DigiKey	RMCF0805FT4K75CT-ND
R19,R20	2	RES 1.5K OHM 1/8W 5% 0805	1k5	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT1K50	Digikey	RMCF0805JT1K50CT-ND
R24,R25	2	RES 220 OHM 1/8W 5% 0805	220	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT220R	Digikey	RMCF0805JT220RCT-ND

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R5,R12	2	RES 4.7K OHM 1/8W 5% 0805	4k7	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT4K70	DigiKey	RMCF0805JT4K70CT-ND
R6,R10,R13	3	RES 1K OHM 1/8W 5% 0805	1k	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT1K00	DigiKey	RMCF0805JT1K00CT-ND
R7,R14	2	RES 100K OHM 1/8W 5% 0805	100k	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT100K	DigiKey	RMCF0805JT100KCT-ND
R8	1	RES 330 OHM 1/8W 5% 0805	330	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT330R	Digikey	RMCF0805JT330RCT-ND
R9	1	RES 120 OHM 1/8W 5% 0805	120	0805 (2012 Metric)	Stackpole Electronics Inc	RMCF0805JT120R	DigiKey	RMCF0805JT120RCT-ND
SP1	1	BUZZER PIEZO 4KHZ 12.2MM PC MNT	BUZZER	Circular - 12.20mm Dia x 6.50mm H, 5mm pitch	TDK Corporation	PS1240P02BT	DigiKey	445-2525-1-ND
SW1	1	SWITCH TACTILE SPST-NO 0.05A 12V	Reset	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
SW2	1	SWITCH TACTILE SPST-NO 0.05A 12V	INT0	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
SW3	1	SWITCH TACTILE SPST-NO 0.05A 12V	INT1	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
SW4	1	SWITCH TACTILE SPST-NO 0.05A 12V	PWR_BBB	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
SW5	1	SWITCH TACTILE SPST-NO 0.05A 12V	GPIO1_6	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
SW6	1	SWITCH TACTILE SPST-NO 0.05A 12V	GPIO1_29	Through Hole, Right Angle	TE Connectivity	FSMRA3JH	DigiKey	450-1657-ND
U1	1	IC VOLT-LEVEL TRANSLATOR 14-SOIC	TXB0104D	14-SOIC (0.154", 3.90mm Width)	Texas Instruments	TXB0104DR	DigiKey	296-21928-1-ND
U10	1	BEAGLEBONEBLACK	BEAGLEBONEBLACK	custom	Beagleboard.org		Beagleboard.org	
U11	1	IC ACCEL SPI/I2C 3AX 14LGA	ADXL345B	14-VFLGA	Analog Devices Inc	ADXL345BCCZ-RL7	DigiKey	ADXL345BCCZ-RL7CT-ND
U3	1	IC REG BUCK SYNC 5V 3A 16QFN	TPS62133RGTT	16-VFQFN Exposed Pad	Texas Instruments	TPS62133RGTT	DigiKey	296-30225-1-ND
U4	1	IC REG BUCK SYNC 3.3V 3A 16QFN	TPS62132RGTT	16-VFQFN Exposed Pad	Texas Instruments	TPS62132RGTT	DigiKey	296-30224-1-ND
U5	1	IC RTC W/TCXO 16-SOIC	DS3231S#	16-SOIC (0.295", 7.50mm Width)	Maxim Integrated	DS3231S#	DigiKey	DS3231S#-ND
U7	1	IC MCU 8BIT 32KB FLASH 32TQFP	ATMEGA328-AU	32-TQFP	Atmel	ATMEGA328-AU	DigiKey	ATMEGA328-AU-ND
U8	1	IC 8BIT NON-INV TRANSLTR 20TSSOP	TXS0108EPWR	20-TSSOP (0.173", 4.40mm Width)	Texas Instruments	TXS0108EPWR	DigiKey	296-23011-1-ND
U9	1	IC EEPROM 256KBIT 400KHZ 8SOIC	CAT24C256	8-SOIC (0.154", 3.90mm Width)	ON Semiconductor	CAT24C256WI-GT3	DigiKey	CAT24C256WI-GT3OSCT-ND
X1	1	CRYSTAL 16MHZ 9PF SMD	16MHz	4-SMD, No Lead (DFN, LCC)	EPSON	TSX-3225 16.0000MF09Z-AC3	DigiKey	SER3628CT-ND
M1	1	Distribution block for air path	MANIFOLD	Manifold2	Wyolum	--	--	--