

ref (highlighted part=SMD)	value	footprint	Description	Manufacturer
BT1	BATT HOLDER	CR2032	HOLDER BATTERY COIN 20MM DIA THM	Keystone Electronics
BT2	BATT_COIN	--	BATTERY LITHIUM COIN 3V 20MM	Panasonic - BSG
C1 - C15, C17, C20, C21, C23, C24, C25	100n	C2	CAP FILM 0.1UF 63VDC RADIAL	Kemet
C16	100n	c_0805	CAP CER 0.1UF 25V 10% X7R 0805	Kemet
C18, C22	2u2 Tant	cnp_3mm_disc	CAP TANT 2.2UF 16V 10% RADIAL	AVX Corporation
C19, C26	100u,16V	CP_6.3x7mm	CAP ALUM 100UF 16V 20% RADIAL	Panasonic
D1, D4	1N4001	diode_do41	DIODE GEN PURPOSE 50V 1A D041	Fairchild
D2, D3	1N5225B	diode_do35	DIODE ZENER 3.0V 500MW D035	Vishay Semiconductor
D5, D6, D7, D8	5V0, 3V3, BLINK, 12V	led_5mm_clear	LED SS 5MM 625NM RED DIFF	Kingbright Corp
DIP1	SOCKET_28X0.3	DIP-28	CONN IC SOCKET VERT 28POS TIN	TE Connectivity
M1	MANIFOLD	Manifold2	Distribution block for air path	Wyolum
P1, P5, P11, P26	AREF, FTDI, VSel_Vlv, 5V_LINK	Header_A_REF	CONN HEADER 50POS .100" SGL GOLD	Samtec Inc
P4	ICSP	Header_ICSP	CONN HEADER 6POS .100 STR 15AU	FCI
P6, P9, P10, P25	Pulse, C3SB, C3SB, U6_OE	pin_strip_3-90	CONN HEADER 16POS .100 R/A 30AU	FCI
P7	GAGE_PR	HCEM500GUH9P3	Miniature amplified pressure sensor	SensorTechnics
P8	ABS0_PR	HDIB002AU8H5	Amplified pressure sensor	SensorTechnics
P14	X_VALVE	Valve	Miniature Pneumatic Solenoid Valve	Parker Hannifin
P15	FLOW_CONN	Conn_Flow	CONN HEADER 2MM 8POS TIN	Molex Connector
P16	FLOWMETER	FlowMeter	Mass Flow Meter for Gases	Sensirion
P19	PUMP_CONN_FLEX	Conn_Pump_Flex	CONN FFC/FPC 6POS 1MM VERT SMD	Molex Inc
P22	Temp	STS21	Temperature Sensor, I2C	Sensirion
P23	PUMP	Pump	Intelligent Pump	XAVITECH
P24	12V	JACK ALIM	CONN POWER JACK MALE 2.5MM CLSD	CUI Inc
P27	BCM2835_GPIO	Header_GPIO	CONN HEADER FMAL 26PS .1" DL TIN	Sullins Connector
P30	X_VALVE_CONN	Valve_Conn	CONN RECEPT 2MM VERT AU 3POS	Harwin Inc
PCB1	PCB	PCB	Main board	seeed studio
Q1	TIP112G	T0220-3-V	TRANS DARL NPN 2A 100V T0220AB	ON Semiconductor
R1, R2, R3, R4, R7, R11, R12	10K	rc03_vert	RES 10K OHM 1/8W 5% CF AXIAL	Stackpole

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R5, R6	220E	rc03_vert	RES 220 OHM 1/8W 5% CF AXIAL	Stackpole
R8	330E	rc03_vert	RES 330 OHM 1/8W 5% CF AXIAL	Stackpole
R9	120E	rc03_vert	RES 120 OHM 1/8W 5% CF AXIAL	Stackpole
R10, R13	1k	rc03_vert	RES 1k OHM 1/8W 5% CF AXIAL	Stackpole
SW1	Reset	SW_PB_V_H	SWITCH TACTILE SPST-NO 0.05A 12V	TE Connectivity
U1	TXB0104D	TXB0104D	IC VOLT-LEVEL TRANSLATOR 14-SOIC	Texas Instruments
U2	TXS0102DCT	TXS0102DCTR	IC VOLT-LVL TRANSL 2BIT BI SM8	Texas Instruments
U3	NCP1117ST50T3G	SOT223	IC REG LDO 5V 1A DPAK-3	ON Semiconductor
U4	NCP1117DT33G	SOT223	IC REG LDO 3.3V 1A DPAK-3	ON Semiconductor
U5	DS3231N	DS3231	IC RTC W/TCXO 16-SOIC	Maxim Integrated
U6	TSX0108	TXS0108EPWR	IC 8BIT NON-INV TRANSLTR 20TSSOP	Texas Instruments
U7	ATMEGA328-P	DIP-28_300_ELL	IC MCU AVR 32K FLASH 28PDIP	Atmel
X1	16MHz	XTAL	CER RESONATOR 16.00MHZ	ECS Inc

DNP				
C2, C3	22p	cnp_3mm_disc	CAP CER 22PF 50V 5% RADIAL	Vishay BC Components
P2, P3	ANALOG_5V0	Header_6x1		
P12, P13	Valve_Conn	Header_5V_Link		
P17, P18	Pump_Conn	Header_FTDI		
P20, P21	Temp_Conn	SIL-4		
P28	VLV_90_M	2X06/90		
P29	VLV_90_F	Header_F_6x2		
P31	FLOW_CONN_CABLE		Custom cable assembly	Molex Connector Corporation
SC1 - S26	SCREW	vite_3mm		
SHIELD1	ARDUINO_SHIELD	ARDUINO_SHIELD_2_040pins		

Manufacturer PN	Distributor (Link)	Distributor PN	NOTE
3003	Digikey	3003K-ND	
CR2032	Digikey	P189-ND	
R82DC3100AA50J	Digikey	399-5863-ND	
C0805C104K3RACTU	Digikey	399-1168-1-ND	SMD
TAP225K016SCS	Digikey	478-1868-ND	
ECE-A1CKA101	Digikey	P833-ND	
1N4001	Digikey	1N4001FSCT-ND	
1N5225B-TR	Digikey	1N5225BCT-ND	
WP7113ID	Digikey	754-1264-ND	
1-390261-9	Digikey	A100210-ND	
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TSW-150-07-L-S	Digikey	SAM1031-50-ND	
67996-206HLF	Digikey	609-3210-ND	
68016-116HLF	Digikey	609-3317-ND	
HCEM500GUH9P3	SensorTechnics	HCEM500GUH9P3	SMD
HDIB002AUY8H5	SensorTechnics	HDIB002AUY8H5	SMD
X-1-05-S-F	Parker Hannifin	X-1-05-S-F	
53014-0810	Digikey	WM18971-ND	
EM1NR4R0V_1A	Sensirion	EM1NR4R0V_1A	
526100671	Digikey	WM7633CT-ND	SMD
STS21	Sensirion	STS21	SMD
P200_GAS	XAVITECH	P200_GAS	
PJ-002B	Digikey	CP-002B-ND	
PPTC132LFBN-RC	Digikey	S7081-ND	
M22-7130342	Digikey	952-1350-5-ND	
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TIP112G	Digikey	TIP112G0S-ND	
CF18JT10K0	Digikey	CF18JT10K0CT-ND	

Manufacturer PN	Distributor (Link)	Distributor PN	NOTE
CF18JT220R	Digikey	CF18JT220RCT-ND	
CF18JT330R	Digikey	CF18JT330RCT-ND	
CF18JT120R	Digikey	CF18JT120RCT-ND	
CF18JT1K00	Digikey	CF18JT1K00CT-ND	
FSM2JH	Digikey	450-1649-ND	
TXB0104DR	Digikey	296-21928-1-ND	SMD
TXS0102DCTR	Digikey	296-21978-1-ND	SMD
NCP1117DT50G	Digikey	NCP1117DT50G0S-ND	SMD
NCP1117DT33RKG	Digikey	NCP1117DT33RKG0SCT-ND	SMD
DS3231S#	Digikey	DS3231S#-ND	SMD
TXS0108EPWR	Digikey	296-23011-1-ND	SMD
ATMEGA328-PU	Digikey	ATMEGA328-PU-ND	
ZTT-16.00MX	Digikey	X908-ND	

K220J15C0GF5TH5	Digikey	BC1034CT-ND	
51004-0800+50011-810C	Digikey	DCC-961-ND	