

ref (highlighted part=SMD)	value	footprint	Description	Manufacturer
BT1	BATT_HOLDER	CR2032	HOLDER BATTERY COIN 20MM DI	Keystone Electronics
BT2	BATT_COIN	--	BATTERY LITHIUM COIN 3V 20MM	Panasonic - BSG
C1 ~ C15, C17, C20, C21, C22	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 DO	Fairchild
D2, D3	1N5225B	diode_do35	DIODE ZENER 3.0V 500MW DO35	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 THT	TE Connectivity
M1	MANIFOLD	Manifold2	Distribution block for air path	Wyolum
P1, P5, P11, P26	AREF, FTDI, VSel_Vlv, 5V_Header_A_REF		CONN HEADER 50POS .100" SGL	Samtec Inc
P4	ICSP	Header_ICSP	CONN HEADER 6POS .100 STR 15	FCI
P6, P9, P10, P25	Pulse, C3SB, C3SB, U6_Opin_strip_3-90		CONN HEADER 16POS .100 R/A 3	FCI
P7	GAGE_PR	HCEM500GUH9P3	Miniature amplified pressure sensor	SensorTechnics
P8	ABSO_PR	HDIB002AUY8H5	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	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	CUI Inc
P27	BCM2835_GPIO	Header_GPIO	CONN HEADER FMAL 26PS .1" DLS	Sullins Connector
P30	X_VALVE_CONN	Valve_Conn	CONN RECEPT 2MM VERT AU 3P	Harwin Inc
PCB1	PCB	PCB	Main board	seed studio
Q1	TIP112G	TO220-3-V	TRANS DARL NPN 2A 100V TO220	ON Semiconductor
R1, R2, R3, R4, R7, R11, R12	10K	rc03_vert	RES 10K OHM 1/8W 5% CF AXIAL	Stackpole

ref (highlighted part=SMD)	value	footprint	Description	Manufacturer
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 TE Connectivity	
U1	TXB0104D	TXB0104D	IC VOLT-LEVEL TRANSLATOR 14-T	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 20T	STTexas 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 Component
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 Corp
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	
C0805C104K3RAC	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	
--	--	--	
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	
--	--	--	
TIP112G	Digikey	TIP112GOS-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	
FSMRA3JH	Digikey	450-1657-ND	
TXB0104DR	Digikey	296-21928-1-ND	SMD
TXS0102DCTR	Digikey	296-21978-1-ND	SMD
NCP1117DT50G	Digikey	NCP1117DT50GOS-ND	SMD
NCP1117DT33RKG	Digikey	NCP1117DT33RKGOSC	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+5001	Digikey	DCC-961-ND	