

| 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_GPI0 | Header_GPI0 | CONN HEADER FMAL 26PS .1" DL TIN | Sullins Connector |
| 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 |
| R5, R6 | 220E | rc03_vert | RES 220 OHM 1/8W 5% CF AXIAL | Stackpole |

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| 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 | | |
| 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 | |
| -- | -- | -- | |
| 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 |
| HDIB002AU8H5 | SensorTechnics | HDIB002AU8H5 | 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 | |
| -- | -- | -- | |
| TIP112G | Digikey | TIP112G0S-ND | |
| CF18JT10K0 | Digikey | CF18JT10K0CT-ND | |
| CF18JT220R | Digikey | CF18JT220RCT-ND | |

| Manufacturer PN | Distributor (Link) | Distributor PN | NOTE |
|-----------------|-------------------------|-----------------------|------------|
| 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 | |

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