

Bill Of Materials for: Team 8 - Smart-Air-Quality-Monitor

Last modified: 11-12-25

PCB version: PCB VERSION #2

BOM revision: BOM REVISION #2

Qty	Reference Designators	Mfr	Mfr Part Number	Description	Dist	Dist Part Number	Cost Ea.	Cost Total
8	C1, C3, C4, C5, C6, C7, C8, C9	Yageo	CC1206KRX7R9BB104	0.1 µF Capacitor - 0.1 µF ±10% 50V C1206	Digi-Key	311-1179-1-ND	\$0.15	\$1.20
1	C2	Samsung	GRM31CD80J107MEA8K	100 µF ±20% 6.3V C1206	Digi-Key	490-GRM31CD80J107MEA8KCT-ND	\$0.45	\$0.45
2	JP1	AITRIP	FR232RL	FT232RL Mini USB to TTL CONN-TH_DS1026-02-1X6S8BR	Amazon	BODYHPYKMQ	\$8.99	\$8.99
1	LED1	Dialight	5990281007F	LED GREEN 1206 SMD	Digi-Key	350-4365-1-ND	\$0.55	\$0.55
1	LED2	Dialight	5990210007F	LED RED 1206 SMD	Digi-Key	350-4360-1-ND	\$0.21	\$0.21
1	P2	SparkFun	DEV-11113	Pro Mini ATmega328-5V/16MHz	Amazon	B004G53J5I	\$11.25	\$11.25
2	Q1, Q2	Onsemi	2N3904BU	(BJT) Transistor NPN 40 V 200 mA 300MHz 625 mW Through Hole	Digi-Key	2N3904FS-ND	\$0.28	\$0.56
3	R1, R4, R9	Bourns Inc.	CR1206-JW-102ELF	1 kOhms ±5% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	118-CR1206-JW-102ELFCT-ND	\$0.10	\$0.30
1	R2	Bourns Inc.	CR1206-FX-2001ELF	2 kOhms ±1% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	CR1206-FX-2001ELFCT-ND	\$0.10	\$0.10
1	R3	Bourns Inc.	CR1206-JW-104ELF	100 kOhms ±5% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	CR1206-JW-104ELFCT-ND	\$0.10	\$0.10
2	R5, R11	Bourns Inc.	CR1206-JW-152ELF	1.5 kOhms ±5% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	CR1206-JW-152ELFCT-ND	\$0.10	\$0.20
2	R6, R7	Bourns Inc.	CR1206-FX-5101ELF	5.1 kOhms ±1% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	CR1206-FX-5101ELFCT-ND	\$0.10	\$0.20
2	R8, R10	Bourns Inc.	CR1206-JW-103ELF	10 kOhms ±5% 0.25W, 1/4W Chip Resistor 1206	Digi-Key	CR1206-JW-103ELFCT-ND	\$0.10	\$0.20
2	S1, S2	Same Sky	SLW-1276864-4A-D	SWITCH SLIDE SPDT 0.5A 30V	Digi-Key	2223-SLW-1276864-4A-D-ND	\$0.83	\$1.66
1	S3	EC Buying	MH-Z19C	MH-Z19C Dual-Channel NDIR CO ₂ Sensor, 0–5000 ppm	Amazon	B0CRKH5XVX	\$26.99	\$26.99
5	U1	DORHEA	DHT22/AM2302	DHT22 / AM2302 Temp & Humidity Sensor (SENSOR-TH_DHT11)	Amazon	B09151TB9T	\$7.99	\$7.99
1	U2	EC Buying	PMS5003	PMS5003 Digital Particle Concentration Laser Sensor	Amazon	B0B38J2836	\$24.59	\$24.59
5	U3	DORHEA	DS3231 AT24C32	DS3231 AT24C32 I ² C Real-Time Clock Module	Amazon	B09LLY8KRC	\$8.99	\$8.99
1	U4	Ferwooh	NX3224T028 - 611005	NX3224T028 Nextion TFT Resistive Touch Display	Amazon	B097BLFP9Q	\$35.99	\$35.99
1	U5	IKEN	IK-000-576	MQ-131 Low-Concentration Ozone Sensor (SENSOR-TH_MQ-5)	Amazon	B0D54J2W8J	\$16.99	\$16.99
1	U6	Winson Sensors	MP503	MP503 Air Quality Gas Sensor Odor / VOC - (SENSOR-TH_MP-5)	Amazon	B0CP7563GP	\$5.18	\$5.18
1	USB1	Attend	217B-CA05	USB-C 16-Pin Connector (SMD_TYPE-C-6PIN-2MD-073)	Digi-Key	4827-217B-CA05CT-ND	\$1.94	\$1.94
								TOTAL: \$154.63

Edit Digi-Key List:

<https://www.digikey.com/en/mylists/list/V1T2VYKJYN>

Password: airQuality12@