

SYMBOLS	Item	Description	Ref Des	Qty/ board	Symbols on the board	Manufacturer Part Number	Manufacturer	BOARDS
R	1	4.7k Ohm ±5% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	R1, R2, R47, R48	4	R1,R2,R47,R48	RC0402JR-074K7L	Yageo	CONTROL BOARD
R	2	39k Ohm ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	R3, R49	2	R3, R49	RC0402FR-0739KL	Yageo	CONTROL BOARD
R	3	220 Ohm ±5% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82	40	[R17-R36] , [R63-R82]	RC0402JR-07220RL	Yageo	CONTROL BOARD
R	4	1k Ohm ±0.5% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92	40	[R4 - R16] , [R37 - R46] , [R50 - R62] , [R83 - R92]	RT0402DRD071KL	Yageo	CONTROL BOARD
C	5	CAP CER 0.1UF 16V X7R 0402	C1, C2, C3, C4, C5, C6, C7, C8	8	[C1 - C 8]	CC0402KRX7R7BB104	Yageo	CONTROL BOARD
M	6	I/O Expander 28 I°C 400kHz 28-SSOP	M1,MX2	2	MAX7300	MAX7300AAI+	Maxim Integrated	CONTROL BOARD
I	7	Buffer, Inverting Element 8 Bit per Element Push-Pull Output 20-SOIC	I1, I2, I3, I4, I5, I6	6	[I1 - I6]	74AC540SC	Fairchild/ON Semiconductor	CONTROL BOARD
U	8	RELAY OPTO 600V 0.04A 8SMD	U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15, U16, U17, U18, U19, U20, U21, U22, U23, U24, U25, U26, U27, U28, U29, U30, U31, U32, U33, U34, U35, U36, U37, U38, U39, U40	40	[U1 - U40]	AQW216EHA	Panasonic Electric Works	CONTROL BOARD
AD	9	CONN HEADER 8POS .100" VERT TIN	AD0, AD0., AD1, AD1.	3	AD0 , AD0. , AD1 , AD1.	15912080	Molex, LLC	CONTROL BOARD
Header	10	STACKING HEADER ARDUINO SHIELD	HEADER	1	Header	85	Adafruit Industries LLC	CONTROL BOARD
H1	11	CONN HEADER RT/A 40POS .100 GOLD	H1	1	H1	5499913-9	TE Connectivity AMP Connectors	CONTROL BOARD
CONX	1	CONN HEADER RT/A 40POS .100 GOLD	CONX1, CONX2, CONX3	3	CONX1 , CONX2 , CONX3	5499913-9	TE Connectivity AMP Connectors	POGO PIN BOARD
N/A	2	CONN PIN SPRING-LOADED PCB GOLD	US1	104		0906-1:15-20:75-14:11-0	Mill-Max Manufacturing Corp.	POGO PIN BOARD