3 C2, C 4 5 C4, C 6 7 C 9 10 11 12 13 14 15 16 17 18 19 20 21	TON V1.2 C5, C6, C26, C28, C31 C3, C10, C11, C13, C14, C20, C21 C8, C9, C29 C7, C27, C30, C32, C34 C12, C18, C25 C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3 L1	PCB CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN CONNECTOR HEADER-CONN	- 0603 0402 0603 0603 0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	PCB, FR4, 1.6MM, BLUE SOLDERMASK, HASL, WHITE SILKSCREEN CAP CER 0.1UF 16V X7R 0603 10% CAP CER 12PF 50V NP0 0402 5% CAP CER 2.2UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0402 10% CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE NOT PLACED	1 6 8 3 6 3 4 2 1 1 1	YAGEO YAGEO YAGEO YAGEO YAGEO YAGEO YAGEO YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS HARWIN	CC0603KRX7R7BB104 CC0402JRNPO9BN120 CC0603KRX5R5BB225 CC0603KRX5R5BB105 CC0402KRX5R5BB105 CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	TON_GERBERS_V1-2.ZIP
3 C2, C 4 5 C4, C 6 7 C 9 10 11 12 13 14 15 16 17 18 19 20 21	C3, C10, C11, C13, C14, C20, C21 C8, C9, C29 C7, C27, C30, C32, C34 C12, C18, C25 C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0402 0603 0603 0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 12PF 50V NP0 0402 5% CAP CER 2.2UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0402 10% CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	8 3 6 3 4 2 1 1	YAGEO YAGEO YAGEO YAGEO YAGEO YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	CC0402JRNPO9BN120 CC0603KRX5R5BB225 CC0603KRX5R5BB105 CC0402KRX5R5BB105 CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
14	C20, C21 C8, C9, C29 C7, C27, C30, C32, C34 C12, C18, C25 C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0603 0603 0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 2.2UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0402 10% CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	3 6 3 4 2 1 1	YAGEO YAGEO YAGEO YAGEO YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	CC0603KRX5R5BB225 CC0603KRX5R5BB105 CC0402KRX5R5BB105 CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
6 7 0 9 10 11 12 13 14 15 16 17 18 19 20 21	C7, C27, C30, C32, C34 C12, C18, C25 C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0603 0402 0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 1UF 6.3V X5R 0603 10% CAP CER 1UF 6.3V X5R 0402 10% CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	6 3 4 2 1 1	YAGEO YAGEO YAGEO YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	CC0603KRX5R5BB105 CC0402KRX5R5BB105 CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
6 7 0 9 10 11 12 13 14 15 16 17 18 19 20 21	C12, C18, C25 C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0402 0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 1UF 6.3V X5R 0402 10% CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	3 4 2 1 1 1	YAGEO YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	CC0402KRX5R5BB105 CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
7 0 9 10 11 12 13 14 15 16 17 18 19 20 21	C15, C17, C22, C24 C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0402 0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 0.1UF 10V X5R 0402 10% CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	4 2 1 1 1	YAGEO MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	CC0402KRX5R6BB104 GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
9 10 11 12 13 14 15 16 17 18 19 20 21	C16, C23 C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0402 0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 220PF 50V NP0 0402 5% CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	2 1 1 1 1	MURATA MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	GRM1555C1H221JA01 GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
10 11 12 13 14 15 16 17 18 19 20 21	C19 C33 D1 EXT-1, EXT2 J1 J2 J3	CERAMIC-CAP TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	0402 1206 SOD-323 PTH-18 SMD-5	CAP CER 5.6PF 50V NP0 0402 CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE	1 1 1	MURATA KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	GRM1555C1H5R6CA01 T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
11 12 13 14 15 16 17 18 19 20 21	C33 D1 EXT-1, EXT2 J1 J2 J3	TANTALUM-CAP DIODE HEADER-CONN USB-CONN CONNECTOR	1206 SOD-323 PTH-18 SMD-5	CAP TANT 10UF 1206 16V 10% DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE		KEMET STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	T491A106K016AT BAT60JFILM PPTC181LFBN-RC	
12 13 14 15 16 17 18 19 20 21	D1 EXT-1, EXT2 J1 J2 J3	DIODE HEADER-CONN USB-CONN CONNECTOR	SOD-323 PTH-18 SMD-5	DIODE SCHOTTKY 3.0A BAT60JFILM CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE		STMICROELECTRONICS SULLINS CONNECTOR SOLUTIONS	BAT60JFILM PPTC181LFBN-RC	
13 14 15 16 17 18 19 20 21	J1 J2 J3	HEADER-CONN USB-CONN CONNECTOR	PTH-18 SMD-5	CONNECTOR HEADER, FEMALE, 1X18, 2.54 PITCH CONNECTOR USB MICRO AB RECEPTACLE		SULLINS CONNECTOR SOLUTIONS	PPTC181LFBN-RC	
14 15 16 17 18 19 20 21	J1 J2 J3	USB-CONN CONNECTOR	SMD-5	CONNECTOR USB MICRO AB RECEPTACLE	2			
14 15 16 17 18 19 20 21	J1 J2 J3	USB-CONN CONNECTOR	SMD-5	CONNECTOR USB MICRO AB RECEPTACLE	2		M00 7004040	
15 16 17 18 19 20 21	J2 J3	CONNECTOR	-		1		M20-7821842	
15 16 17 18 19 20 21	J2 J3	CONNECTOR	-			MOLEX	47589-0001	
16 17 18 19 20 21	J3		DTUA	1101121025	0	-	-	NOT PLACED
17 18 19 20 21		HEADER-CONN	DTUA			3M	961102-6404-AR	CAN BE USED SINGLE ROW MALE 2.54MM
18 19 20 21	L1		PTH-2	CONNECTOR HEADER, MALE, 1X2, 2.54MM PITCH	1	FCI	77311-818-02LF	BREAKABLE PIN HEADER CONNECTOR COMMON
18 19 20 21	L1			+		MURATA	BLM18AG121SN1D	
19 20 21	L1	FERRITE-CHIP	0603	FERRITE CHIP 120 OHM 500MA 0603	1	TAIYO YUDEN	BK1608HS121-T	
19 20 21	LED	LED-RGB	0606	LED RGB 0606	1	LITE-ON	LTST-C19HE1WT	
20 21			0606					
21	ON	LED	0603	LED GREEN 0603	1	LITE-ON	LTST-C191KGKT	
	Q1, Q3	MOSFET	SSOT-3	MOSFET FDN340P P-CHANNEL 20V 2A	2	FAIRCHILD SEMICONDUCTOR	FDN340P	
	Q2	MOSFET	SOT-23-3	MOSFET BSS123 N-CHANNEL	1	FAIRCHILD SEMICONDUCTOR	BSS123	
22	R1, R3, R4	RESISTOR-DISCRETE	0402	RES 0402 100 OHM 5% 1/16W	3	YAGEO	RC0402JR-07100RL	
23	R2	RESISTOR-DISCRETE	0402	RES 0402 56.0K OHM 1% 1/16W	1	YAGEO	RC0402FR-0756KL	
24	R5	RESISTOR-DISCRETE	0402	RES 0402 12.0K OHM 1% 1/16W	1	YAGEO	RC0402FR-0712KL	
25	R6, R7, R20	RESISTOR-DISCRETE	0603	RES 0603 3.3K OHM 5% 1/10W	3	YAGEO	RC0603JR-073K3L	
26	R8, R11	RESISTOR-DISCRETE	0603	RES 0603 200 OHM 5% 1/10W	2	YAGEO	RC0603JR-07200RL	
27	R9, R10	RESISTOR-DISCRETE	0603	RES 0603 100 OHM 5% 1/10W	2	YAGEO	RC0603JR-07100RL	
28 F	R12, R14, R15, R19	RESISTOR-DISCRETE	0603	RES 0603 47K OHM 5% 1/10W	4	YAGEO	RC0603JR-0747KL	
29	R13	RESISTOR-DISCRETE	0603	RES 0603 470K OHM 5% 1/10W	1	YAGEO	RC0603JR-07470KL	
30 F	R16, R17, R21, R22	RESISTOR-DISCRETE	0603	RES 0603 100K OHM 5% 1/10W	4	YAGEO	RC0603JR-07100KL	
31	R18	RESISTOR-DISCRETE	0603	RES 0603 22K OHM 5% 1/10W	1	YAGEO	RC0603JR-0722KL	
32	RESET, USER	TACTILE-SWITCH	SMD-4	TACTILE SWITCH SPST-NO RIGHT ANGLE	2	E-SWITCH	TL3330AF130QG	
33	SWD	CONNECTOR	-	NOT PLACED	0	-	-	NOT PLACED
34	U1	IC	LQFP-64	IC MCU STM32F405RGT6	1	STMICROELECTRONICS	STM32F405RGT6	
35	U2	IC	VFQFN-40	IC BLUETOOTH CC2541F256	1	TEXAS INTRUMENTS	CC2541F256RHA	
36	U3	MISCELLANEOUS	0805	MATCHED BALUN 2.45 GHZ	1	JOHANSON TECHNOLOGY	2450BM15A0002	
37	U4	IC	QFN-32	IC WI-FI ESP8266EX	1	ESPRESSIF	ESP8266EX	
38	U5	IC	SOIC-8	IC FLASH 16MBIT QUAD SPI	1	WINBOND ELECTRONICS	W25Q16DVSNIG	
39	U6	IC	LGA-20	IC IMU 9-AXIS BMX055	1	BOSCH SENSORTEC	BMX055	
40	U7	IC	SOT-23-5	IC CONTROLLER LI-ION MCP73831	1	MICROCHIP TECHNOLOGY	MCP73831T-2ACI/OT	
41	U8	IC	SOT-223-3	IC LDO VOLTAGE REGULATOR 3.3V	1	DIODES INCORPORATED	AP7361C-33E-13	
42	U9	IC	SOT-223-3	IC LDO VOLTAGE REGULATOR 5.0V	1	DIODES INCORPORATED	AZ1117EH-5.0	
43	Y1	CRYSTAL	SMD-4	CRYSTAL ABM3B 8 MHZ	1	ABRACON	ABM3B-8.000MHZ-10-1UT	
44	Y2	CRYSTAL	SMD-4	CRYSTAL FA-20H 32 MHZ	1	EPSON	FA-20H 32.0000MF20X-K3	
45	Y3	CRYSTAL	SMD-2	CRYSTAL 32.768 KHZ	1	ECS	ECS327-12.5-34B-TR	
46		CRYSTAL	SMD-4	CRYSTAL FA-20H 26 MHZ	1	EPSON	FA-20H 26.0000MF10Z-AC3	