

Idn	Reference Designator	Item Type	Item Package	Item Desc	Qty	MFG Name	MFG P/N	Notes
1	TON-BOT V1.1	PCB	-	PCB, FR4, 1.6MM, BLACK SOLDERMASK, HASL, WHITE SILKSCREEN	1			TON-BOT_GERBERS_V1-1.ZIP
2	C1, C3, C7, C14, C16, C18	CERAMIC-CAP	0603	CAP CER 0.1UF 16V X7R 0603 10%	6	YAGEO	CC0603KRX7R7BB104	
3	C2, C4, C6, C11, C13, C15, C17	CERAMIC-CAP	0805	CAP CER 10UF 10V X5R 0603 10%	7	MURATA	GRM21BR61A106KE19L	
4	C5, C12	ELECTROLYTIC-CAP	SMD-2	ELECTROLYTIC CAPACITOR 100UF 10V, SMD 5MM	2	PANASONIC	EEE1AA101WR	
5	C8	CERAMIC-CAP	0603	CAP CER 2.2NF 50V NP0 0603 5%	1	YAGEO	CC0603JRNPO9BN222	
6	C9	CERAMIC-CAP	0603	CAP CER 47PF 50V NP0 0603 5%	1	MURATA	GRM1885C1H470JA01D	
7	C10	CERAMIC-CAP	0603	CAP CER 10NF 50V X7R 0603 10%	1	YAGEO	CC0603KRX7R9BB103	
8	D1, D2, D3, D4	LED-INFRARED	PTH-2	LED HIGH POWER INFRARED SFH4545	4	OSRAM	SFH4545	
9	D5	DIODE	SOD-123-2	DIODE SCHOTTKY 3A	1	FAIRCHILD SEMICONDUCTOR	SS34FA	
10	D6	DIODE	SOD-323-2	DIODE SCHOTTKY 0.3A	1	TOSHIBA	1SS404	
11	EXT-1, EXT-2	CONNECTOR	PTH-18	CONNECTOR HEADER, MALE, 1X18, 2.54 PITCH, 22MM	2	METALTEX	BPSDI-22MM-18	
12	J1	CONNECTOR	PTH-2	CONNECTOR HEADER, MALE, 1X2, 2.54 PITCH, RIGHT ANGLE	1	METALTEX	BPSN-2	
13	J2, J3	CONNECTOR	PTH-6	CONNECTOR HEADER, MALE, 1X6, 2.00 PITCH	2	HARWIN	M22-2010646	
		CONNECTOR	PTH-6	CONNECTOR HEADER, FEMALE, 1X6, 2.00 PITCH	2	HARWIN	M22-7130642	
14	KIT1	KIT	-	TON BOARD V1.2	1	IOTON TECHNOLOGY	TON-V1-2	
15	L1	FERRITE-CHIP	0603	FERRITE CHIP 120 OHM 500MA 0603	1	MURATA	BLM18AG121SN1D	
16	L2	INDUCTOR	SMD-2	FIXED INDUCTOR 6.8UH TYS6045	1	LAIRD TECHNOLOGIES	TYS60456R8M-10	
17	Q1, Q2, Q3, Q4	PHOTOTRANSISTOR	PTH-2	PHOTOTRANSISTOR TEFT4300	4	VISHAY SEMICONDUCTORS	TEFT4300	
18	Q5, Q6, Q7, Q8, Q9	MOSFET	SOT-23-3	MOSFET BSS123 N-CHANNEL 170MA	5	FAIRCHILD SEMICONDUCTOR	BSS123	
19	R1	RESISTOR-DISCRETE	0603	RES 0603 51K OHM 5% 1/10W	1	YAGEO	RC0603JR-0751KL	
20	R2	RESISTOR-DISCRETE	0603	RES 0603 39K OHM 5% 1/10W	1	YAGEO	RC0603JR-0739KL	
21	R3, R16, R17, R19, R20, R22, R23, R25, R26	RESISTOR-DISCRETE	0603	RES 0603 10K OHM 5% 1/10W	9	YAGEO	RC0603JR-0710KL	
22	R4, R5, R6, R7	RESISTOR-DISCRETE	0603	RES 0603 1.8K OHM 5% 1/10W	4	YAGEO	RC0603JR-071K8L	
23	R8, R10, R12, R14, R27	RESISTOR-DISCRETE	0603	RES 0603 100K OHM 5% 1/10W	5	YAGEO	RC0603JR-07100KL	
24	R9, R13	RESISTOR-DISCRETE	0805	RES 0805 7.5 OHM 5% 1/4W	2	PANASONIC	ERJ-T06J7R5V	
25	R11	RESISTOR-DISCRETE	0805	RES 0805 2.0 OHM 5% 1/4W	1	PANASONIC	ERJ-T06J2R0V	
26	R15, R18, R21, R24	RESISTOR-DISCRETE	0603	RES 0603 12R OHM 5% 1/10W	4	YAGEO	RC0603JR-0712RL	
27	U1	IC	SSOP-24	IC DRIVER MOTOR TB6612FNG	1	TOSHIBA	TB6612FNG,C,8,EL	
28	U2	IC	SOP-8	IC STEP-UP DC/DC 3A PAM2421	1	DIODES INCORPORATED	PAM2421AECADJR	
29	U3, U4, U5, U6, U7, U8, U9, U10	IC	SMD-4	IC OPTICAL REFLECTIVE SENSOR QRE1113GR	8	FAIRCHILD SEMICONDUCTOR	QRE1113GR	
30	X1, X2	CONNECTOR	-	NOT PLACED	0	-	-	NOT PLACED
31	-	MOTOR	-	30:1 Micro Metal Gearmotor HPCB 6V with Extended Motor Shaft	2	POLOLU	3072	
32	-	ENCODER	-	Magnetic Encoder Pair Kit for Micro Metal Gearmotors, 12 CPR, 2.7-18V (HPCB compatible)	1	POLOLU	3081	
33	-	WHEEL	-	Pololu Wheel 32x7mm Pair - Black	1	POLOLU	1087	
34	-	BRACKET	-	Pololu Micro Metal Gearmotor Bracket Pair - Black	1	POLOLU	989	