

Idn	Reference Designator	Item Type	Item Package	Item Desc	Qty	MFG Name	MFG P/N	Notes
1	mh001 v1.1	PCB	-	PCB, FR4, 1.6MM, BLACK SOLDERMASK, HASL, WHITE SILKSCREEN	1			GERBERS_mh001_v1_1.zip
2	BUZZER	AUDIO-INDICATOR	PTH-2	MAGNETIC BUZZER 5VDC	1	PUI AUDIO	AT-1224-TWT-5V-2-R	
3	C1	ELECTROLYTIC-CAP	PTH-2	ELECTROLYTIC CAPACITOR 10UF 16V	1	PANASONIC	ECA-1CM100I	
4	J1, J2, J3	HEADER-CONN	PTH-4	CONN. HEADER FEMALE 1X4 2.54MM	3	SULLINS CONNECTOR	PPTC041LFBN-RC	
5	J1.B	HEADER-CONN	PTH-4	CONN. HEADER MALE 1X4 2.54MM	1	MOLEX	22-28-4040	CAN BE USED SINGLE ROW MALE 2.54MM BREAKABLE PIN HEADER CONNECTOR COMMON
6	LED1, LED2	LED	PTH-2	STANDARD LED T-1 (3MM) RED	2	LITE-ON	LTL-1CHE	
7	M1, M2	MOTOR	PTH-2	MINI METAL GEAR MOTOR N20 6V 500RPM	2	ASLONG	JGA12-N20-30	
		BRACKET	-	MOTOR N20 EXTENDED BRACKET (PAIR)	1	DFROBOT	FIT0160	
		WHEEL	-	WHEEL 42x19MM (PAIR)	1	DFROBOT	FIT0085	
8	POWER	SWITCH	PTH-5	SWITCH SLIDE SPDT	1	C&K COMPONENTS	SS-12D07-VG 4 NS GA PA	
9	Q1	TRANSISTOR-NPN	TO-92-3	TRANSISTOR NPN 45V 0.8A BC337	1	FAIRCHILD SEMICONDUCTOR	BC337	
10	R1, R2, R6	RESISTOR	PTH-2	FILM RESISTOR AXIAL 1KOHM 1/4W 5%	3	YAGEO	CFR-25JR-52-1K	
11	R3, R4	RESISTOR	PTH-2	FILM RESISTOR AXIAL 15KOHM 1/4W 5%	2	YAGEO	CFR-25JR-52-15K	
12	R5, R8, R9, R11, R12, R14, R15	RESISTOR	PTH-2	FILM RESISTOR AXIAL 8.2KOHM 1/4W 5%	7	YAGEO	CFR-25JR-52-8K2	
13	R7, R10, R13	RESISTOR	PTH-2	FILM RESISTOR AXIAL 33OHM 1/4W 5%	3	YAGEO	CFR-25JR-52-33R	
14	SJ1	SMD-JUMPER	-	NOT PLACED	0	-	-	NOT PLACED
15	SW1	TACTILE-SWITCH	PTH-4	TACTILE SWITCH SPST-NO	1	TE CONNECTIVITY	FSM4JH	
16	U1	HEADER-CONN	PTH-15	CONN. HEADER FEMALE 1X15 2.54MM	2	SULLINS CONNECTOR	PPTC151LFBN-RC	WITH ATMEGA328P, CH340 AND USB CABLE
		ARDUINO	-	ARDUINO NANO V3.0 - ATMEGA328P	1	-	ARDUINO NANO V3.0	
17	U2	IC	PDIP-16	IC MOTOR CONTROLLER L293D	1	TEXAS INSTRUMENTS	L293DNE	
		SOCKET	PTH-16	DIP SOCKET 16 PINS	1	3M	4816-3000-CP	
18	U3, U4, U5, U6, U7, U8	SENSOR	PTH-4	REFLECTIVE OPTICAL SENSOR TCRT5000	6	VISHAY SEMICONDUCTORS	TCRT5000	
19	-	BALL-CASTER	-	BALL CASTER WITH 3/8" METAL BALL	1	DFROBOT	FIT0159	
20	CONNECTED TO J1.B	POWER-BANK	-	PORTABLE MOBILE POWER SUPPLY	1	POWER BANK	MODEL A5	IMAGE
21	CONNECTED TO J2	MODULE	-	BLUETOOTH 4.0 BLE MODULE	1	JNHUAMAO TECHNOLOGY	HM-10	WITH LOGIC LEVEL TRANSLATOR - IMAGE

Bill of Materials (BOM): mh001 v1.1