

CSE 3323 - Electronics

Bill of Materials for WALL-E Motor Driver Circuit

Qty	Value	Part Description	Mouser Number
2	0.1Ω	2W Resistor (Current Sense)	588-WLCR100FET
11	1kΩ	1/4W Resistor	660-CF1/4C102J
2	1.5kΩ	1/4W Resistor	660-CF1/4C152J
2	4.7kΩ	1/4W Resistor	660-CF1/4C473J
2	100kΩ	1/4W Resistor	660-CF1/4C104J
4	5kΩ	TRIMPOT	652-3362H-1-502LF
2	10kΩ	TRIMPOT	652-3362P-1-103LF
1	100kΩ	TRIMPOT	652-3362P-1-104LF
9	10nF	Capacitor	810-FA18X7R1H10300
6	0.1uF	Capacitor	810-FA18X7R1H10400
1	47uF	Capacitor	810-FG16X5R1E476MRTO
2	47uF	Electrolytic Cap. (Polarized)	140-SEA470M1CSA0507
2	220uF	Electrolytic Cap. (Polarized)	140-RGA221M1HKBK1020G
1	RED	LED 3mm	604-WP710A10ID
1	GREEN	LED 3mm	604-WP710A10GD

Qty	Value	Part Description	Mouser Number
5	LMC555CN	555 Timer IC (CMOS)	926-LMC555CN/NOPB
1	MCP6004	Quad Op-Amp IC	579-MCP6004-I/P
1	SN74AC32N	OR Logic Gate IC (2-input, 4-gate)	595-SN74AC32N
4	STP3NK50Z	N-Ch. Power MOSFET 2.3A	511-STP3NK50Z
4	NTP2955G	P-Ch. Power MOSFET 2.4A	863-NTP2955G
2	2N7000TA	N-Ch. Small Signal MOSFET 200mA	512-2N7000TA
2	VP2106N3-G	P-Ch. Small Signal MOSFET 250mA	689-VP2106N3-G
8	BAV21-TAP	Diode - General Purpose (Flyback)	78-BAV21-TAP
8	1N914	Diode - Small Signal	512-1N914T50A
1	SPDT	Slider Switch	612-EG1218
4	AAA Battery	1.5V AAA Battery	Amazon Link
2	Motor	DC Motor	Amazon Link
1	Robot Body	Robot Chassis Kit	Amazon Link
3	Connectors	2-Pole Screw Terminal Connectors	Amazon Link

94 Total Parts