

Name	Quantity	Price	Vendor	Purpose										
ATmega328PU	1	\$2.13	Digi-Key	Central microcontroller for interpreting app signals and control logic										\$2.13
Motor Driver	2	\$3.68	Digi-Key	Motor driver chips to control speed and direction of motor rotation										\$7.36
16 MHz Crystal Oscillator	1	\$0.69	Digi-Key	Used by the ATmega chip to determine internal clock										\$0.69
10 kOhm Resistor	1	\$0.04	Digi-Key	Resistor between reset pin of ATmega and 5V										\$0.04
22pF Ceramic Capacitors	2	\$0.23	Digi-Key	Capacitors which tie crystal oscillator to GND										\$0.46
5V Voltage Regulator	2	\$0.62	Digi-Key	Regulators for 5V needed by ATmega and motor drivers										\$1.24
0.33 uF Ceramic Capacitors	2	\$0.23	Digi-Key	Stabilize input voltage from batteries for voltage regulators										\$0.45
Toggle Switch DPDT	1	\$2.95	Digi-Key	Switch between battery pack and PCB										\$2.95
AA Batteries (20 pack)	8	\$0.85	Amazon	Power source for entire robot										\$6.79
Battery Holder with On/Off Switch	1	\$8.00	Amazon	Configures 8 AA batteries to about around 12V										\$8.00
16pos IC Dip Socket	2	\$0.83	Digi-Key	Solder sockets for motor drivers										\$1.66
28pos IC Dip Socket	1	\$1.44	Digi-Key	Solder sockets for ATmega										\$1.44
HM-10 Bluetooth Module	1	\$10.59	Amazon	bluetooth module for communication between ATmega and phone application										\$10.59
Ultrasonic Sensor HC-SR04 x 4	1	\$11.79	Amazon	Package of 4 HC-SR04 ultrasonic sensors										\$11.79
Wire Set	1	\$15.83	Amazon	Wire connection between motors, ultrasonic sensors, and bluetooth module to PCB										\$15.83
Chassis Kit (Chassis, 4 DC TT Motors, 4 Wheels)	1	\$26.42	Amazon	Main robot body, motors, and wheels										\$26.42
M3-0.5 X 25MM Screws	1	\$3.27	Amazon	Screws to attaching standoffs to PCB and Chassis										\$3.27
M3 X 60MM Screw Spacers	1	\$11.76	Amazon	Standoffs for attachment of PCB to robot chassis										\$11.76
PCB Print	1	\$6.65	ALLPCB	PCB print from outsourced company										\$6.65
Total Cost of Production		\$119.52												