

PartID	Quantity	Description	CostEach	CostTotal
1	14	Breadboard	\$3 - \$8	\$36 - \$96
2	1	22 AWG Solid Tinned-Copper Hook-Up Wire	\$18.00	\$18.00
3	9	1kΩ resistor	\$0.04	\$0.36
4	8	10kΩ resistor	\$0.04	\$0.32
5	2	100kΩ resistor	\$0.04	\$0.08
6	8	470Ω resistor	\$0.04	\$0.32
7	1	1MΩ resistor	\$0.04	\$0.04
8	1	1MΩ potentiometer	\$2.50	\$2.50
9	6	0.01μF capacitor	\$0.15	\$0.90
10	2	0.1μF capacitor	\$0.18	\$0.36
11	1	1μF capacitor	\$0.71	\$0.71
13	4	555 timer IC	\$0.41	\$1.64
14	1	74LS00 (Quad NAND gate)	\$0.50	\$0.50
15	5	74LS04 (Hex inverter)	\$0.50	\$2.50
16	2	74LS08 (Quad AND gate)	\$0.50	\$1.00
17	1	74LS32 (Quad OR gate)	\$0.50	\$0.50
18	1	74LS76 (Dual JK flip-flop)	\$2.00	\$2.00
19	2	74LS86 (Quad XOR gate)	\$0.50	\$1.00
20	1	74LS138 (3-to-8 line decoder)	\$0.50	\$0.50
21	1	74LS139 (Dual 2-line to 4-line decoder)	\$0.50	\$0.50
22	4	74LS157 (Quad 2-to-1 line data selector)	\$0.50	\$2.00
23	4	74LS161 (4-bit synchronous binary counter)	\$0.50	\$2.00
24	7	74LS173 (4-bit D-type register)	\$1.00	\$7.00
25	2	74LS189 (64-bit random access memory)	\$1.50	\$3.00
26	6	74LS245 (Octal bus transceiver)	\$0.50	\$3.00
27	1	74LS273 (Octal D flip-flop)	\$0.50	\$0.50
28	2	74LS283 (4-bit binary full adder)	\$2.00	\$4.00
29	4	28C16 EEPROM	\$6.00	\$24.00
30	2	Double-throw toggle switch	\$3.80	\$7.60
31	2	Momentary 6mm tact switch	\$2.50	\$5.00
32	1	8-position DIP switch	\$0.50	\$0.50
33	1	4-position DIP switch	\$0.50	\$0.50
34	41	Red LED	\$0.05	\$2.05
36	20	Yellow LED	\$0.05	\$1.00
37	11	Green LED	\$0.05	\$0.55
39	22	Blue LED	\$0.05	\$1.10
40	4	Common cathode 7-segment display	\$0.75	\$3.00
41	1	Arduino Nano	\$22.00	\$22.00
42	2	74HC595 (shift registers)	\$6.80	\$13.60

Modules
All
All
CLK, RAM, OUT
BUS
CLK, OUT
BUS
CLK
CLK
CLK, RAM, OUT
CLK
CLK
CLK, OUT
RAM
CLK, RAM, CONT
CLK, OUT
CLK
OUT
ALU
CONT
OUT
RAM
PC, CONT
REG, RAM
RAM
REG, ALU, RAM,
OUT
ALU
OUT, CONT
CLK, RAM
CLK, RAM
RAM
RAM
BUS, REG, ALU,
REG, RAM, CON
RAM, PC, CONT
CLK, REG, CONT
OUT
EEPROM progra
EEPROM progra