

Tech-Explorer Catapult -- Microcontroller Release Materials List

1/05/09

(Additional parts for Microcontroller Option to Electric Release Model)

Page 1 of 1

Item Description	Req'd Per Catapult	Supplier	Supplier Stock #	Price	Cost per Catapult	Notes	Order Quantity 100 Catapults
Printed Circuit Board	1	Sierra College	Catapult-PCB-1	\$3.75	\$3.75	PCBs must be ordered well in advance of when needed	
Resistor 270 Ohm ¼ W	2	Jameco	690726	\$0.01	\$0.02	R2, R4 (100 lots only)	
Resistor 1K Ohm ¼ W	3	Jameco	690865	\$0.01	\$0.03	R3, R5, R8 (100 lots only)	
Resistor 10K Ohm ¼ W	3	Jameco	691104	\$0.01	\$0.03	R1, R6, RH (100 lots only)	
Resistor 100K Ohm ¼ W	1	Jameco	691340	\$0.01	\$0.01	R7 (100 lots only)	
Capacitor .001 uF 100V	1	Jameco	544825	\$0.09	\$0.09	C1 (10 lots only)	
Capacitor .1 uF 50V	2	Jameco	544921	\$0.12	\$0.24	C2 (10 lots only)	
Capacitor .47 uF 50V	1	Jameco	25560	\$0.43	\$0.86	C3, C4 (10 lots only)	
Capacitor 4700 uF 25V	1	All Electronics	4700-35RC	\$0.95	\$0.95	C5 (Jameco 93851)	
Switch Miniature Slide	1	Jameco	109171	\$0.31	\$0.31	SW2	
Switch Miniature Push	1	Jameco	162886	\$0.45	\$0.45	SW1	
Battery Clip 9V	2	Jameco	109154	\$0.15	0.30	(100 for \$15.00)	
Buzzer Magnetic TDB05	1	Jameco	76065	\$2.99	\$2.99	BUZ1	
Connector Push 3/16"	2	All Electronics	1250	\$0.05	\$0.10	(50 for \$2.50 lots)	
Socket IC DIP 8 Pin	1	Jameco	837708	\$0.22	\$0.22		
Diode 1N4003	1	Jameco	1537897	\$0.02	\$0.02	D1 (\$2.00/100))	
LED Red Diffused T1	1	Jameco	333851	\$0.15	\$0.15	LED1	
Optical Interrupter H21A3	1	Jameco	3201901	\$0.90	\$0.90	OPTO1 (Not Used in Magnetic Sensor Version)	
Magnetic Sensor SS441A	1	Jameco	1915886	\$1.90	\$1.90	HALL1 (Not Used in Optical Sensor Version)	
Magnet Neodymium	1	All Electronics (Harbor also has)	MAG-74	\$0.25	\$0.25	(Not used in optical version)	
Transistor 2N4401	1	All Electronics	2N4401	\$0.15	\$0.15	Q1 (5 for \$0.75 lots)	
Transistor IRL34N	1	Jameco	669943	\$0.70	\$0.70	Q2	
Regulator LM7805T	1	Jameco	51262	\$0.35	\$0.35	U2	
Microcontroller PIC12F675-I/P	1	Jameco	223781	\$1.70	\$1.70	U1	
Spacer Nylon ¼ Inch	4	All Electronics	SP-42	\$0.05	\$0.20	Better = MSC 67340927	
Screw #4 x .75"	4	MSC	87908133	\$0.03	\$0.12	For wood bases only (Note 1)	

Notes: (1) Mounting hardware must match the base material and thickness. (2) Hookup wire and heat shrink for the hall magnetic sensor version. (3) Strapping material and mounting hardware for interrupter vane or to mount hall sensor.