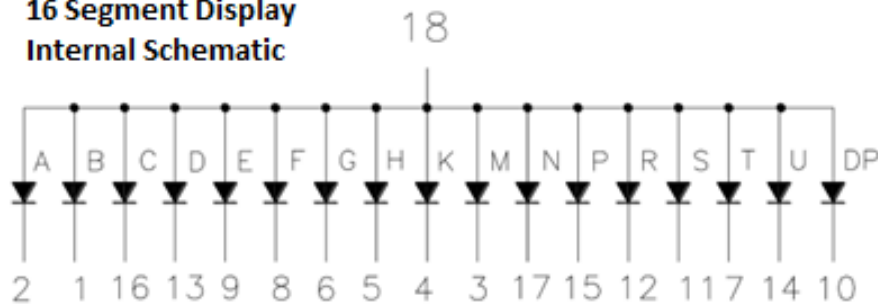
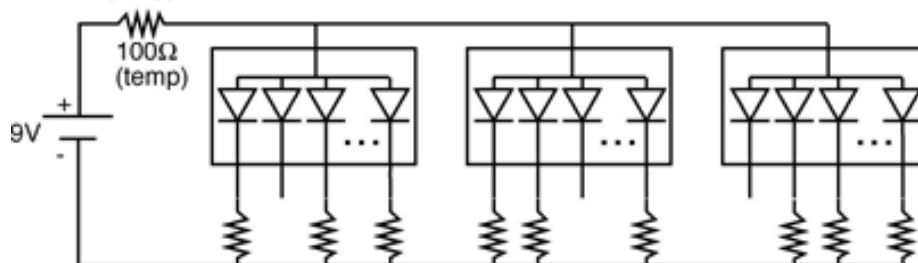


Pin #	Connection	TOP VIEW	Pin #	Connection
1	Cathode B			18
2	Cathode A	17		Cathode N
3	Cathode M	16		Cathode C
4	Cathode K	15		Cathode P
5	Cathode H	14		Cathode U
6	Cathode G	13		Cathode D
7	Cathode T	12		Cathode R
8	Cathode F	11		Cathode S
9	Cathode E	10		Cathode DP

**16 Segment Display
Internal Schematic**



Project Schematic



IF YOU WANT TO MAKE YOUR OWN:

Parts list for LED circuit project

Complete instructions are at:

<http://go.osu.edu/K12engineering>

For each circuit to be built, you will need the parts listed in Table 1. One possible suggested vendor is listed for each item; prices are circa March 2009.

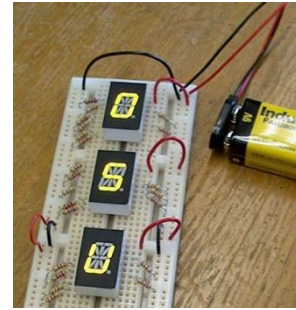


Table 1. Parts list.

#	Unit	Description	Vendor	PN	Unit Cost
1	Ea	Solderless breadboard	Jameco.com	20601	\$5.95
1	Ea	100Ω resistor, ½ Watt	Digikey.com	OF101JE-ND	\$0.54
3	Ea	16-segment display (OK to mix colors)	Digikey.com	160-1106-ND (green) 160-1108-ND (red) 160-1107-ND (yellow)	\$2.70
30 to 40	Ea	Carbon film resistor, ¼ Watt Suggestions: 270 Ω, 300Ω, 330Ω, 360Ω, 390Ω, 430Ω or 460Ω.	Digikey.com	OD360JE-ND (example, 360Ω)	\$0.42
1	Ea	Battery snap	Digikey.com	BS6I-ND	\$0.30
1	Ea	9V battery	Digikey.com	P145-ND	\$2.31
		Jumper wire	Radio Shack	276-173*	\$6.49

*This is a kit with assorted jumper wires. If you will be doing much breadboard work, it's cheaper to buy spools of jumper wire, e.g. Digikey C2004B-100-ND, 100 foot spool, \$16.24. Make sure the wire is solid, not stranded, and 22 AWG (that's the wire diameter). Jumper wires can be cut and stripped ahead of time for a group.

Tools: Wire strippers, wire cutters (if you don't buy the jumper wire kit). Not necessary but handy is an IC extraction tool, Digikey P/NK157-ND (\$3.15) for removing displays from the breadboards without damaging the pins.