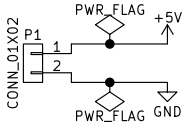
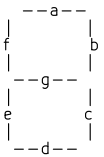
Power supply
modified USB cable

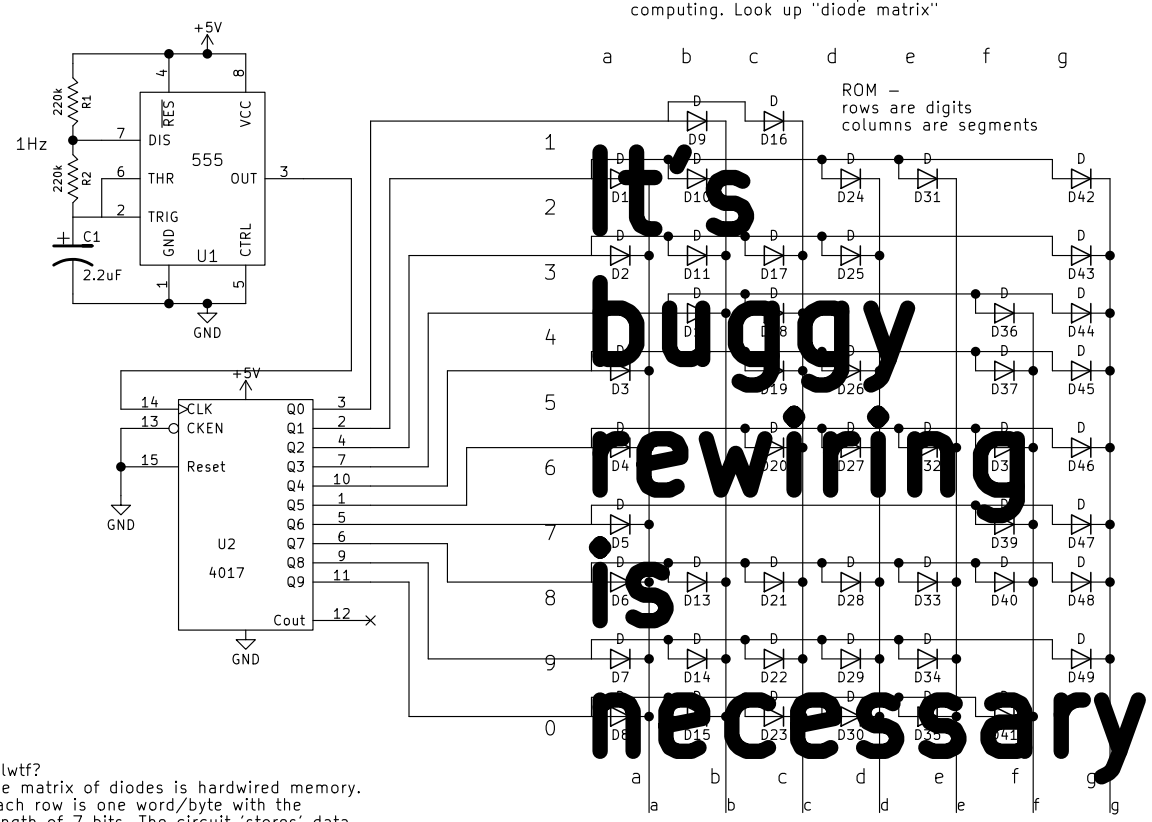


! WARNING !
This circuit is not physically checked
it would be a pain to put all on
breadboard but a perfboard might
be a relatively ok

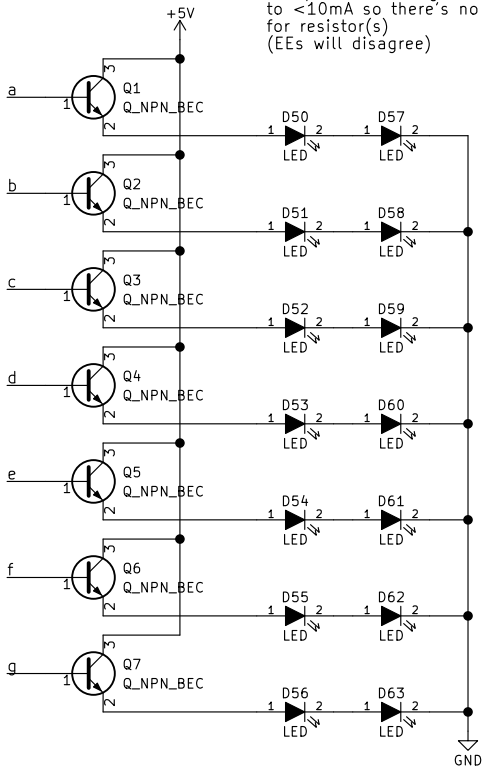


abcdefg
1 – 0110000
2 – 1101101
3 – 1111001
4 – 0110011
5 – 1011011
6 – 1011111
7 – 1110000
8 – 1111111
9 – 1111011
0 – 1111110

This is a diode ROM
similar that was used in pioneers of
computing. Look up "diode matrix"



Single digit
7 segment display
from discrete LEDs
The power is voltage-limited
to <10mA so there's no need
for resistor(s)
(EEs will disagree)



Q: lolwtf?
A: The matrix of diodes is hardwired memory.
Each row is one word/byte with the
length of 7 bits. The circuit 'stores' data
for displaying a number on a 7 segment LED display
(hence 7 bit word)
I'll be making the memory and the display from
discrete diodes and the only chips are for
changing the address. Counting up at 1Hz frequency.
It would also work by putting logic HIGH on anode
of one of the leftmost diodes and get your output
on the bottom. That's where the display is wired.

Sheet: /
File: discrete7segment.sch

Title: Descrete ROM 7-segment driver

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