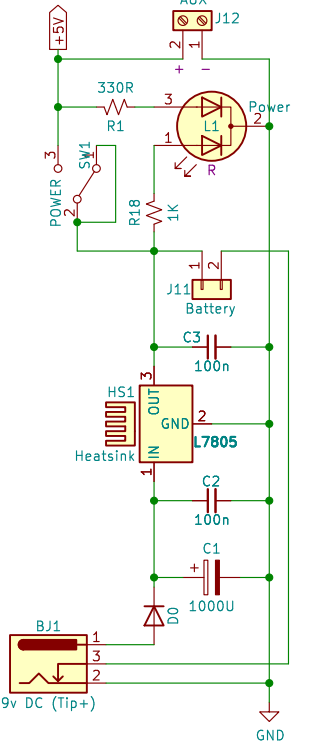
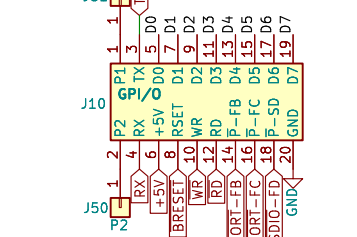


TEC-1G

Power Delivery

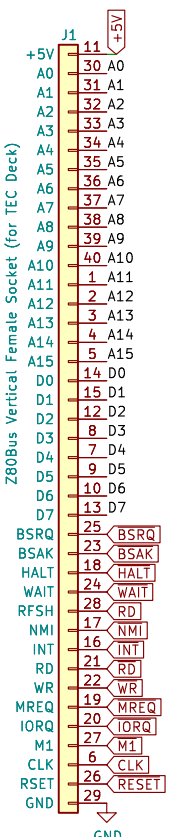
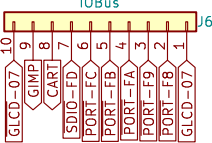


General Input/Output



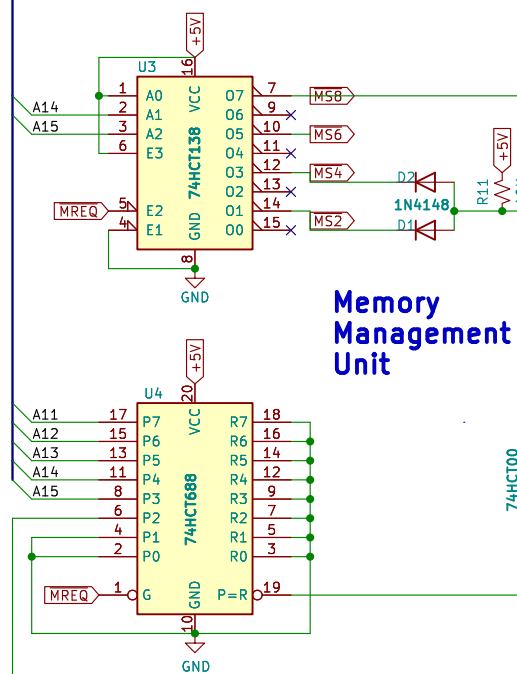
The TEC Deck

The new way to expand your TEC-1! With appropriate long-legged headers, expansion boards can be stacked on top of each other, just like the original TEC-1, but now you have access to ALL the 280 pins as well as port and memory select lines. No more ugly fly leads or cables. Memory Expansion of 512K with ease. Input/Output options for days!



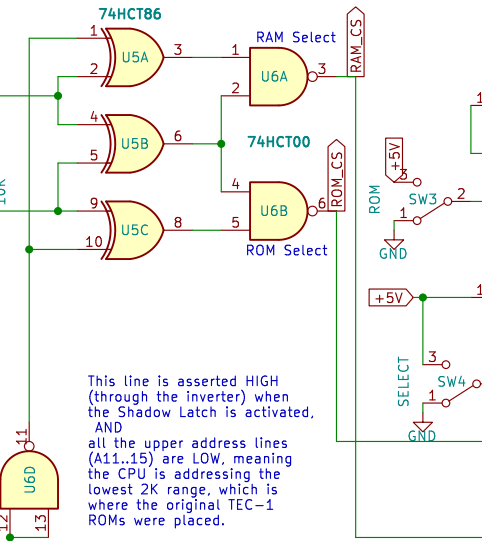
Memory Management Unit

With the Shadow ROM switch ON (on Reset or OUT FF-\$01), the lower 2K of the 16K ROM is mapped to the lowest 2K of the memory map. This is to provide backward compatibility to older TEC-1 machines and their Monitors.



To remove the Shadowed ROM, an Output of ONE to Bit 0 of Port \$FF removes the ROM from lower 2K. (It is possible to Shadow it back in with an Output of 0 to Bit 0 of Port \$FF)

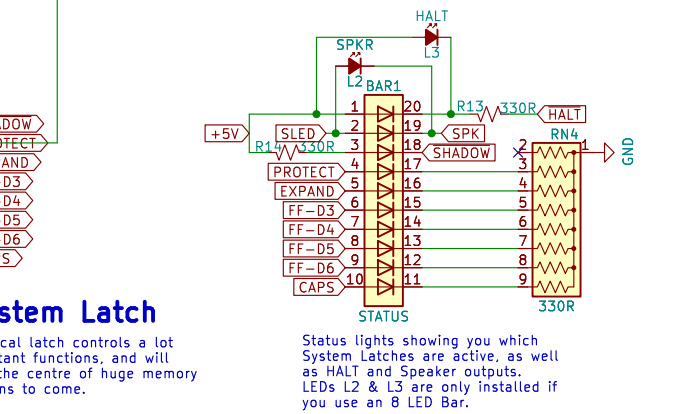
The ROM is selected (asserted LOW) IF Any address in the lower 2K is requested (with Shadow ON) OR If an address is within the top 16K of 64K. OTHERWISE The RAM is selected if the address falls within the lower half (32K) of the memory map.



This line is asserted HIGH (through the Inverter) when the Shadow Latch is activated. AND all the upper address lines (A11..15) are LOW, meaning the CPU is addressing the lowest 2K range, which is where the original TEC-1 ROMs were placed.

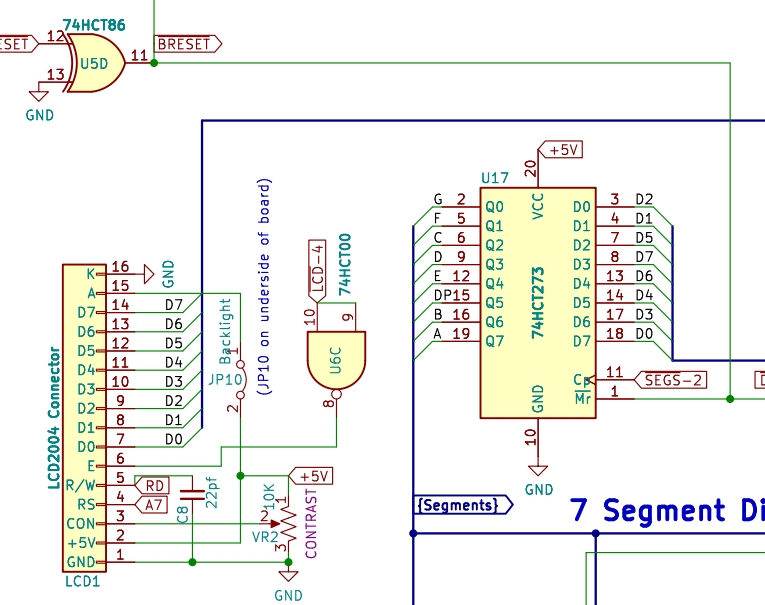
Memory Protection

On Reset, all RAM is writeable. Under software control sending Bit 2 High of Port \$FF turns ON write protection of the RAM in the second 16K memory space. Sending to Port \$FF a value with Bit 2 clear will remove write protection.



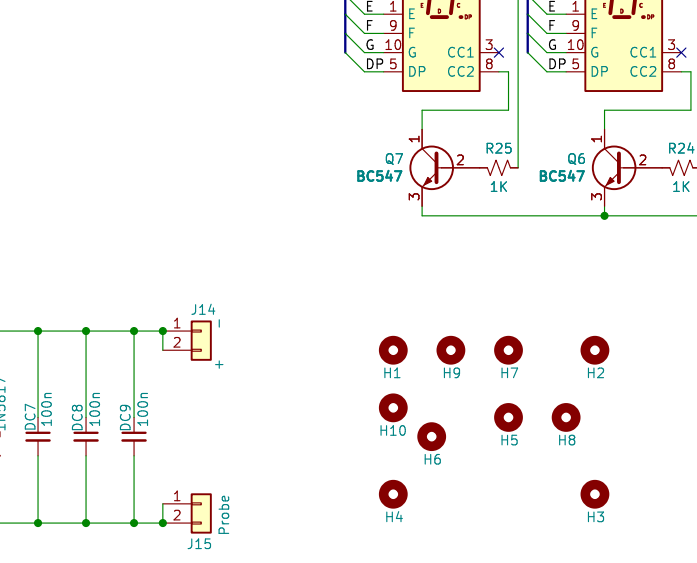
System Latch

This critical latch controls a lot of important functions, and will also be the centre of huge memory expansions to come.



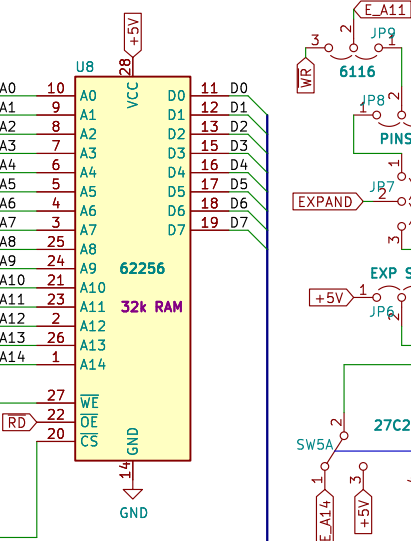
LCD 20 Characters x 4 Lines

(C8 is optional and only required if your LCD display gets corrupted)

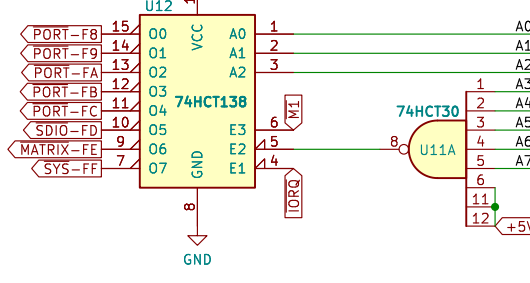


64k Memory

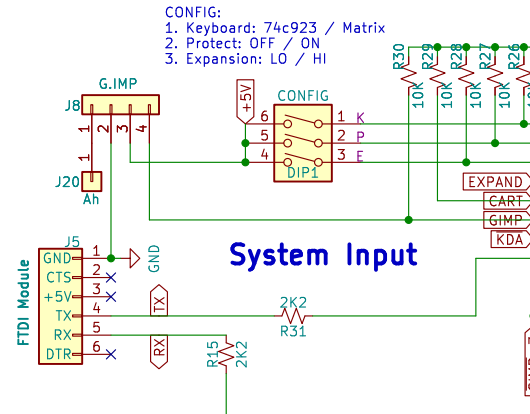
The lower 32K is all RAM in a single chip. The upper 16K of the memory map is reserved for the system ROM, although it is made up of up to a 64K EPROM to allow selection of multiple monitors, using a pair of switches.



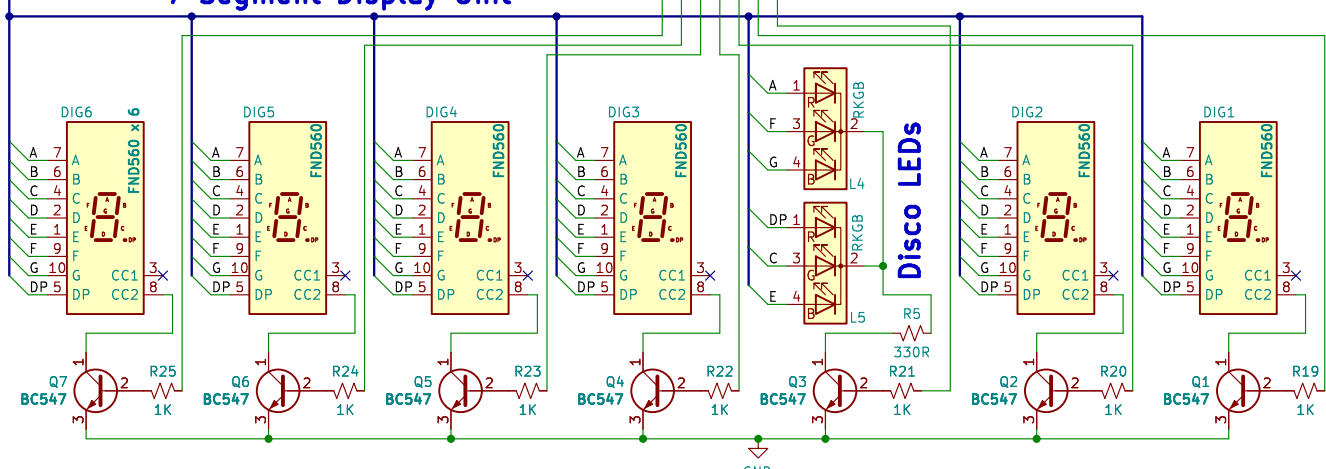
I/O Decoders



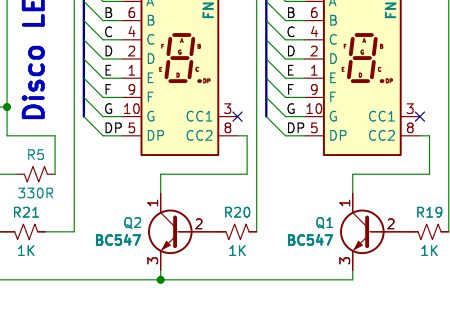
System Input



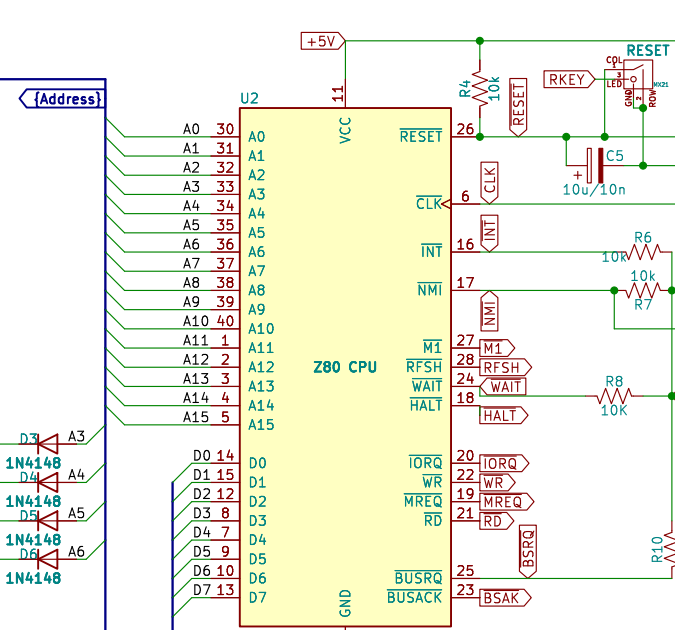
7 Segment Display Unit



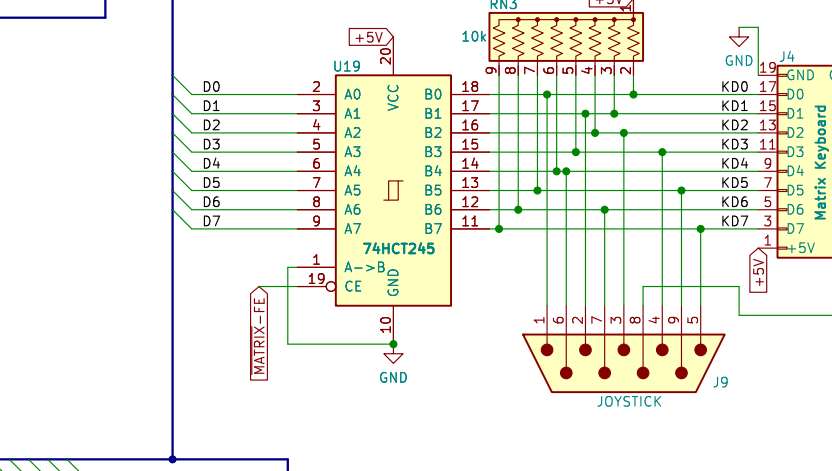
Disco LEDs



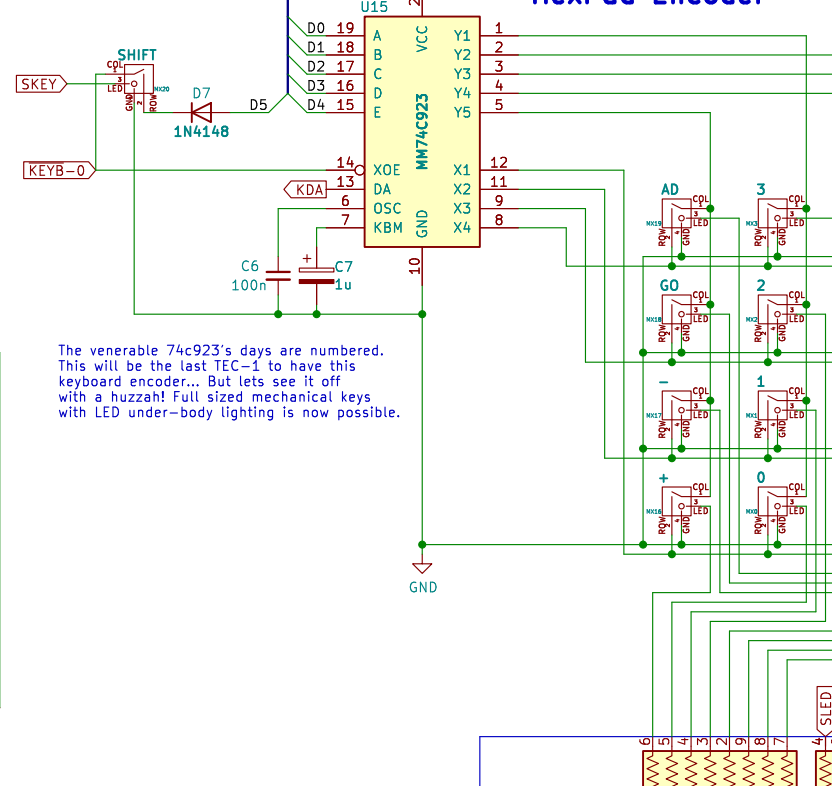
CPU & Clock



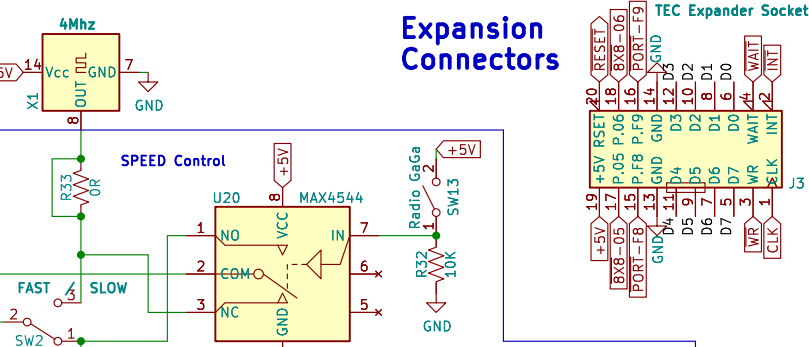
Matrix Keyboard & Joystick



HexPad Encoder



Expansion Connectors



IP1 can be left open if using the MON/BMON/MON3 or if using the Matrix Keyboard as primary input. If using MON1/2 then it needs to be installed on pins 2-3 (KB). Pins 1-2 used for Breakpoints on Halt.

SPEED Control - Pick One
1. Manual Switch & Mini Pot
2. Manual Switch & Radio Pot
3. Analogue Switch (U20) & Radio Pot
Do NOT install Manual Switch and U20 at same time.

