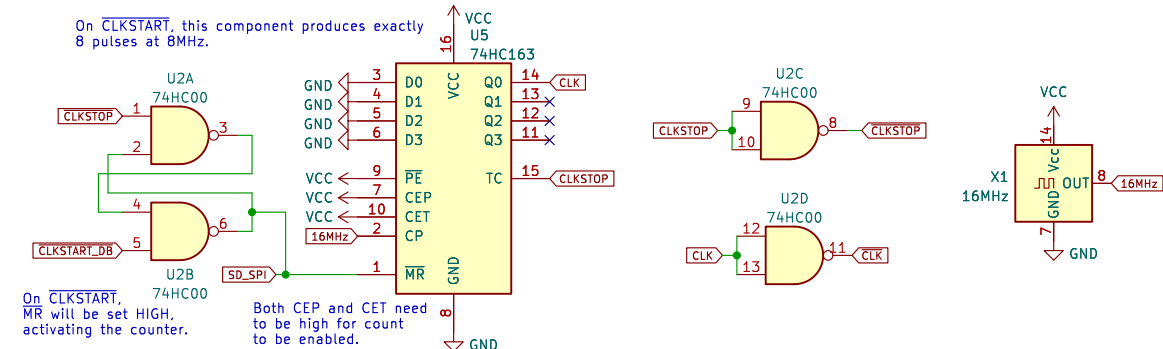
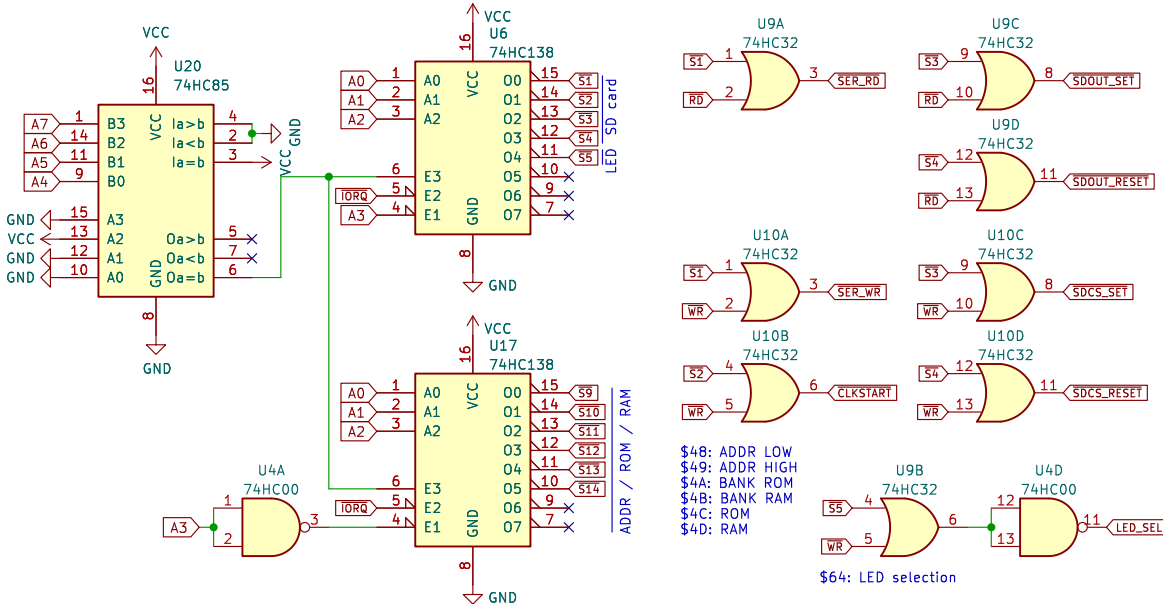
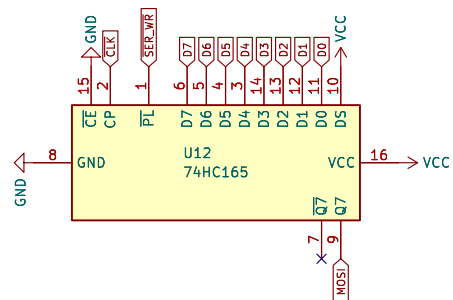
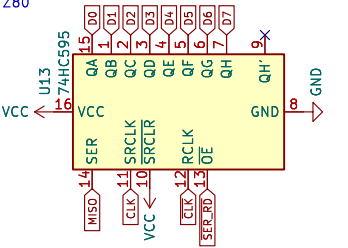


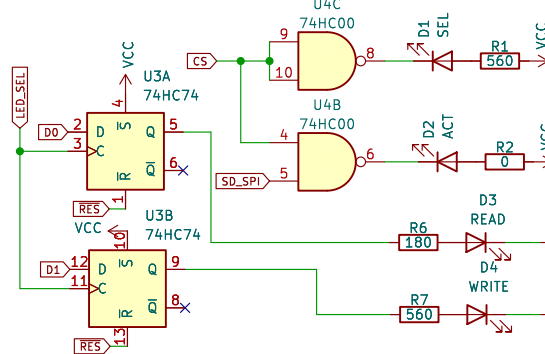
CLOCK COMPONENT



SELECTION COMPONENT

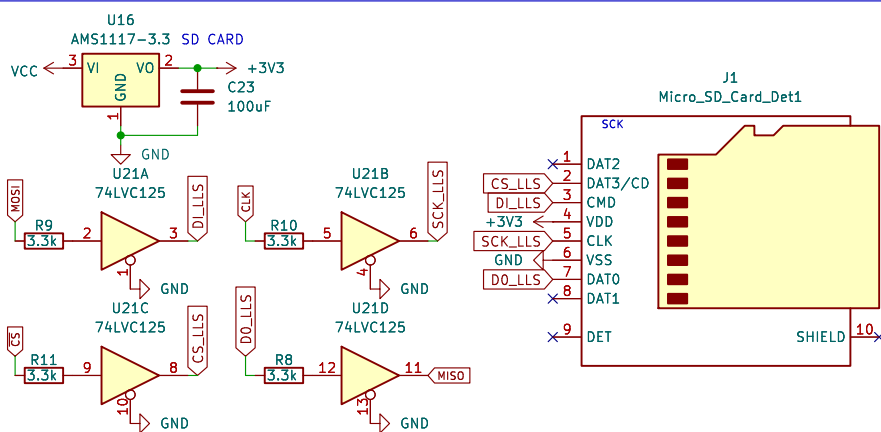
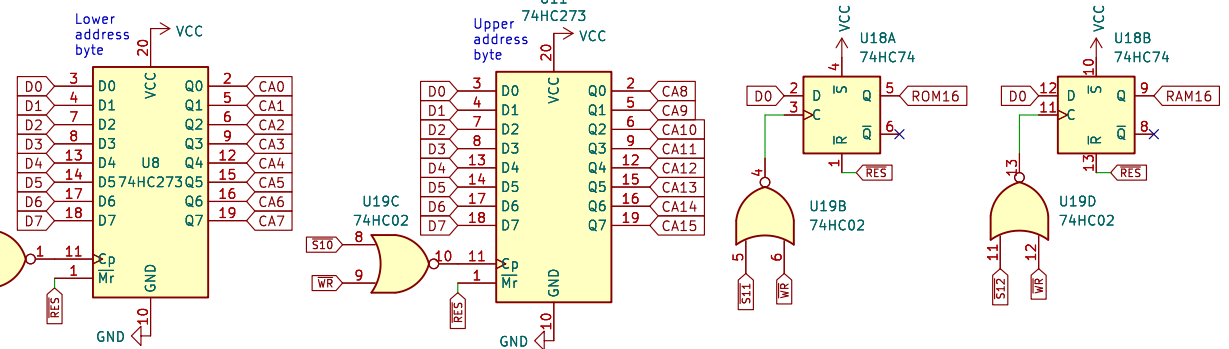
SHIFT REGISTER Z80 -> SD
OUT REGISTERSHIFT REGISTER SD -> Z80
IN REGISTER

Two LEDs show whether the SD card is selected via the CS line and whether signals are sent to the SD card. Another two LEDs show I/O on the RAM and ROM chips.

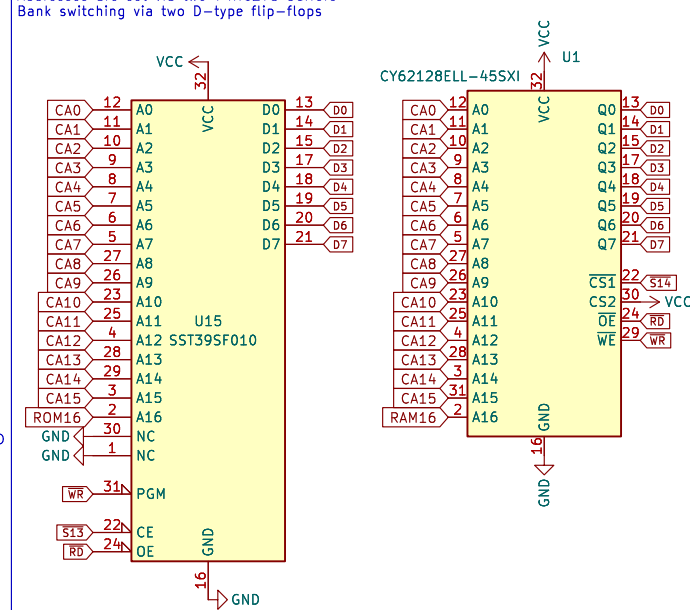
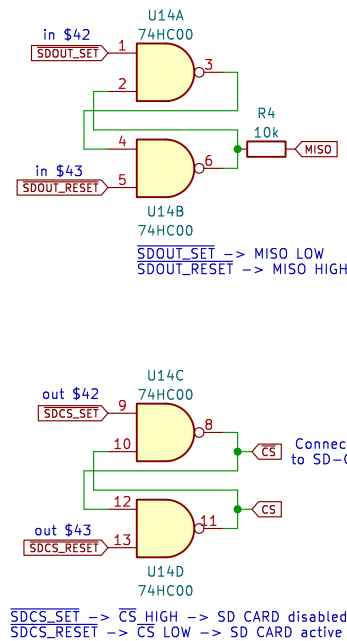


Set 16 bit address for the ROM and RAM chips. The logic circuitry for the CP signal uses the remaining gates on the 74HC04, 74HC00 and 74HC21 chips.

- * $\overline{\text{S5}}$ and $\overline{\text{WR}}$ both LOW, CP for lower byte ADDR HIGH
- * $\overline{\text{S6}}$ and $\overline{\text{WR}}$ both LOW, CP for upper byte ADDR HIGH

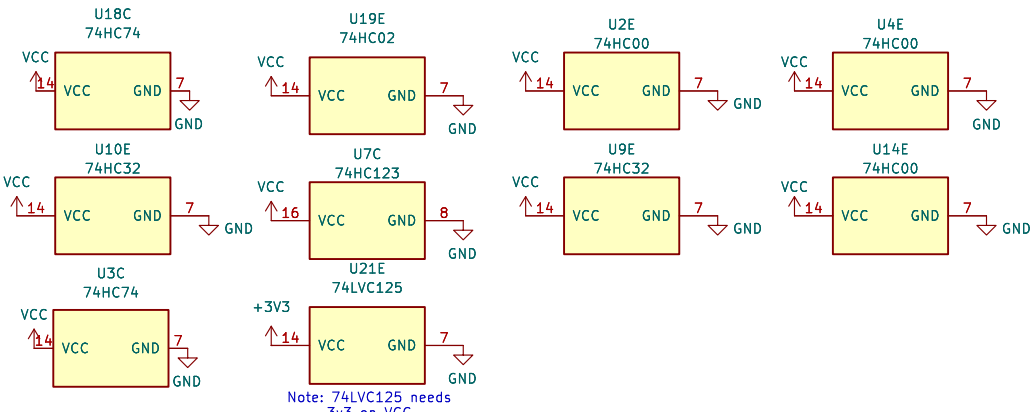
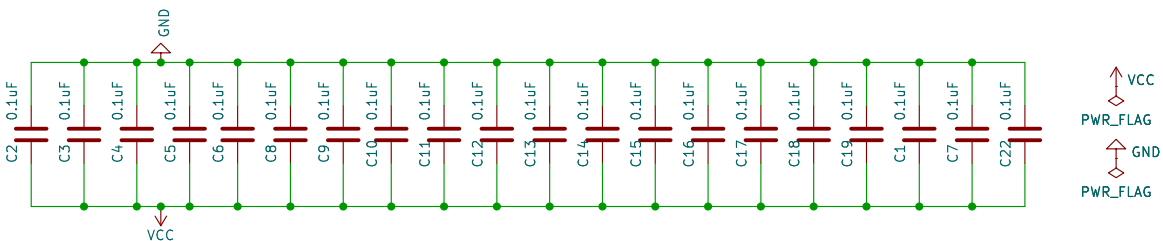
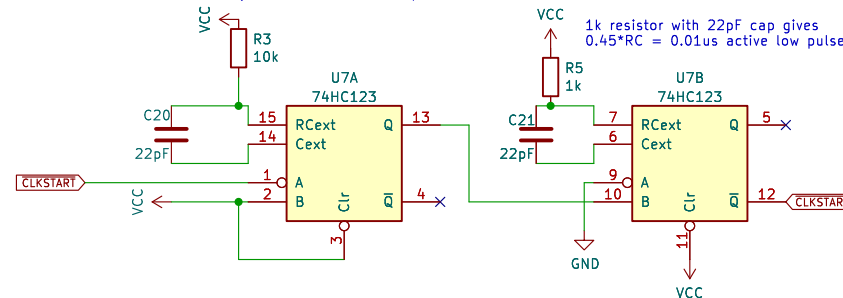
ROM and RAM chips
Expose 2x64kb of memory via bank switching

Addresses are set via two 74HC273 buffers
Bank switching via two D-type flip-flops

SD CARD
S/R LATCHES

MULTIVIBRATOR DELAY COMPONENT

10k resistor with 22pF cap gives
 $t = 0.45RC = 0.1\mu s$ delay between consecutive pulses



Sheet: /

File: port2-sdcard-interface.kicad_sch

Title: Philips P2000T SD-CARD SLOT2 cartridge

Size: A3

Date: 2024-05-26

Rev: rev6

KiCad E.D.A. 9.0.2

Id: 1/1