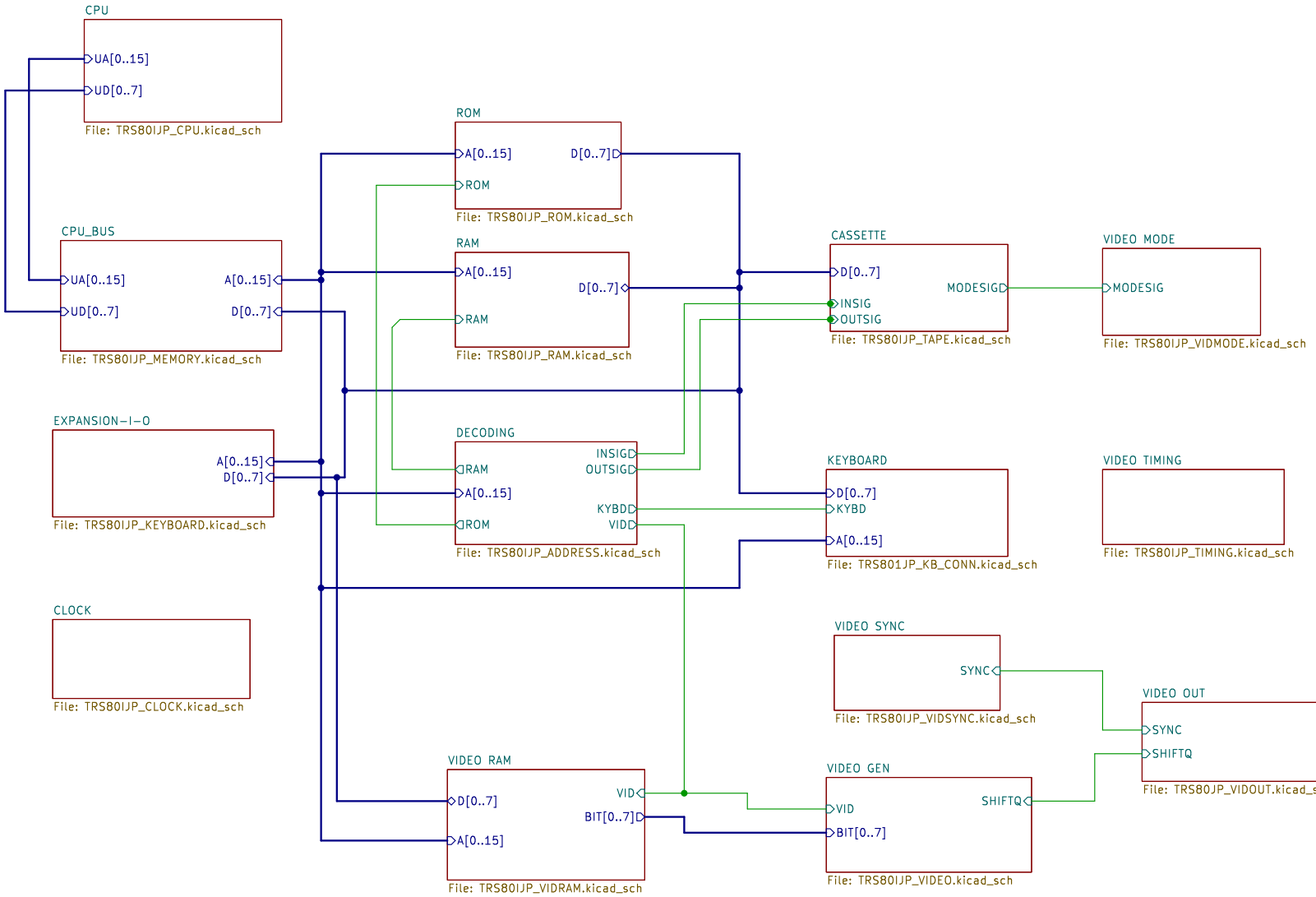
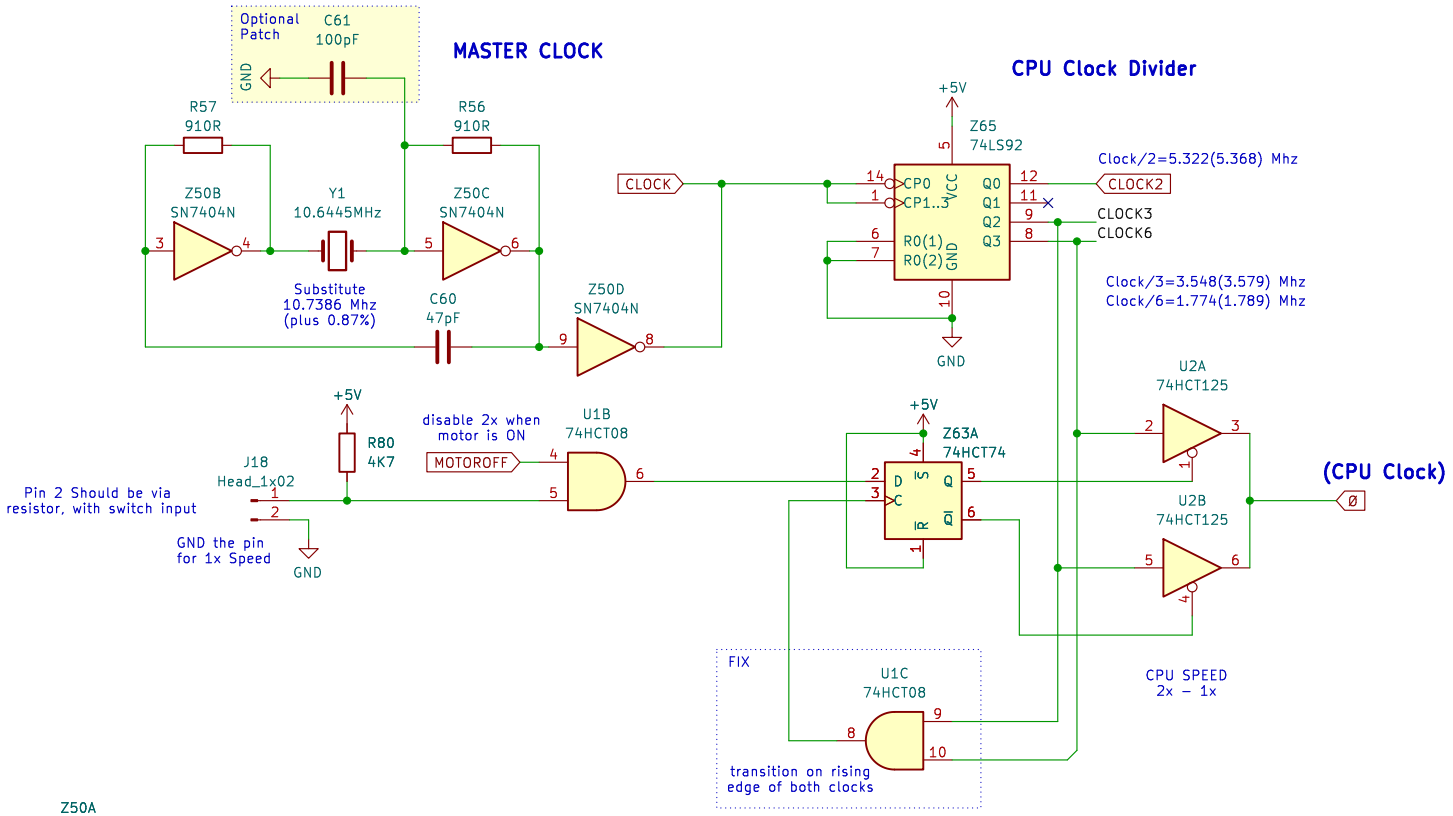


Mark Pruden

Sheet: /
File: TRS80IJP_1.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 1/21



(Z50) – SN7404N can be replaced with a DIP 14 CAN Oscillator as the following Pins are assigned:
* Pin 1 = Output Enable
* Pin 7 = GND
* Pin 8 = Outuput
* Pin 16 = VCC

(Then discrete components Y1, R56, R57, C60, C61 can be excluded.)

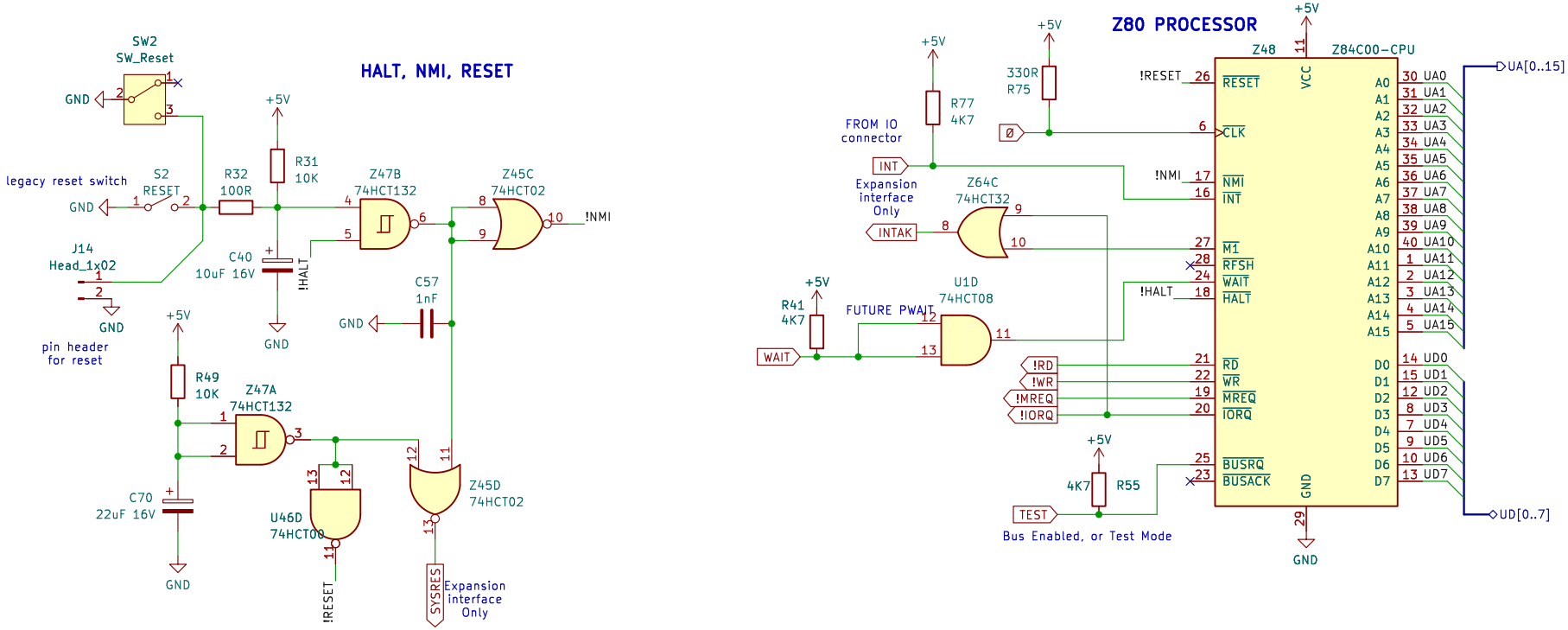
MAIN SYSTEM CLOCK

Mark Pruden

Sheet: /CLOCK/
File: TRS80IJP_CLOCK.kicad_sch

Title: TRS–80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 2/21



MAIN Z80 CPU AND CONTROL

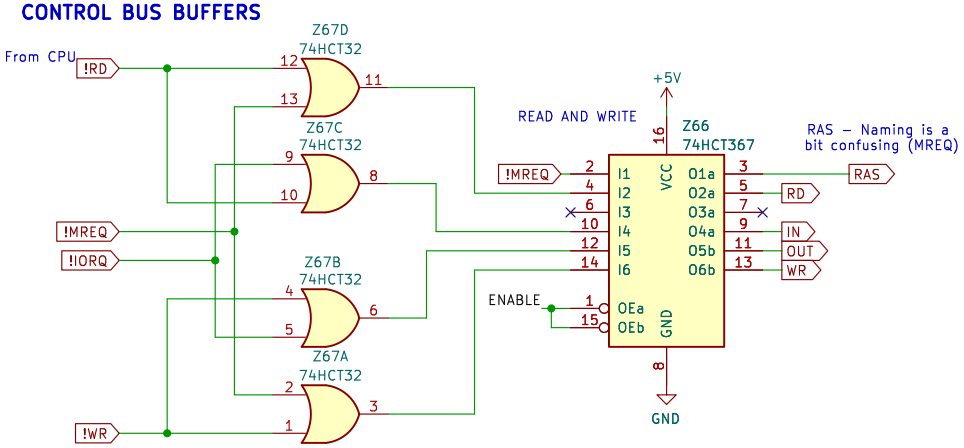
Mark Pruden

Sheet: /CPU/
File: TRS80IJP_CPU.kicad_sch

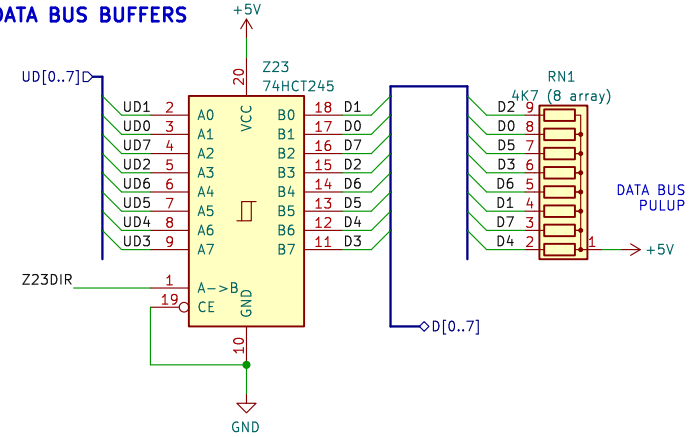
Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 3/21

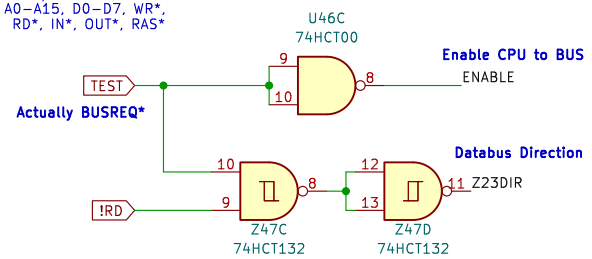
CONTROL BUS BUFFERS



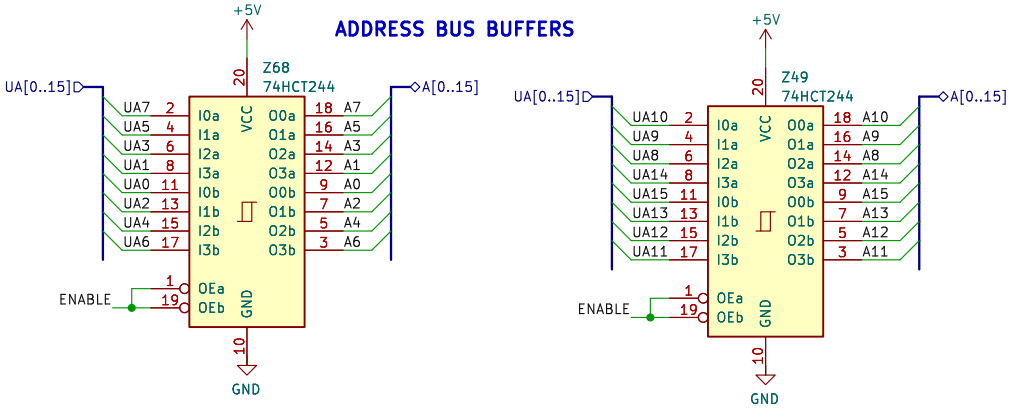
DATA BUS BUFFERS



A logic 0 on TEST* input tri-states A0–A15, D0–D7, WR*, RD*, IN*, OUT*, RAS*



ADDRESS BUS BUFFERS



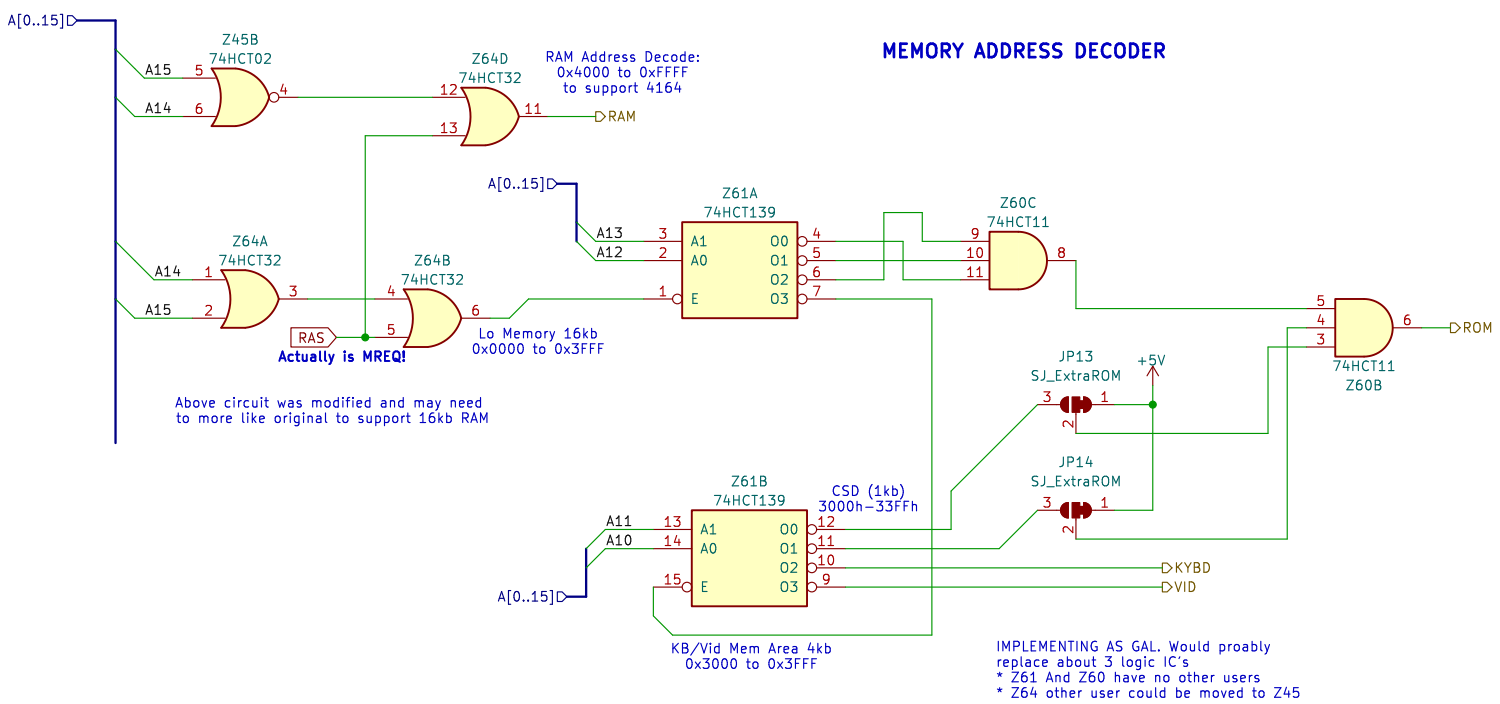
CPU BUS BUFFERING

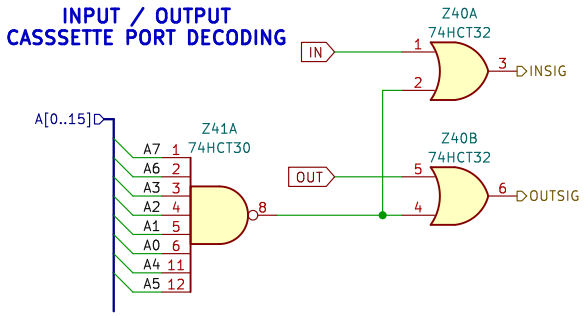
Mark Pruden

Sheet: /CPU_BUS/
File: TRS80IJP_MEMORY.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 4/21





CPU MEMORY AND IO ADDRESS DECODING

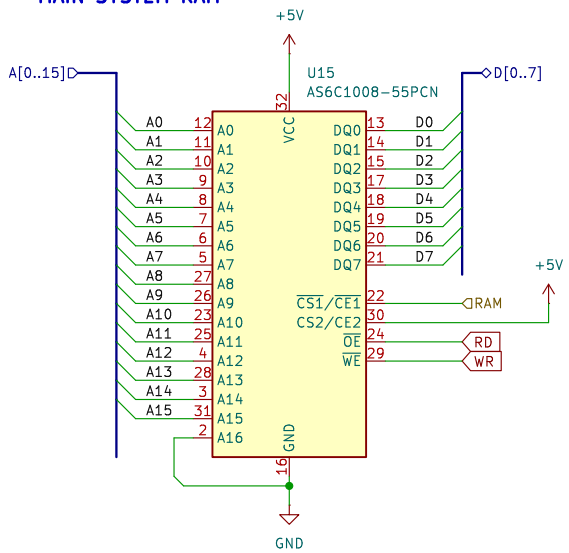
Mark Pruden

Sheet: /DECODING/
File: TRS80IJP_ADDRESS.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 5/21

MAIN SYSTEM RAM



Manufacturer : Alliance Memory, Inc.
Part Number : AS6C1008-55PCN
Description : SRAM - Asynchronous Memory IC 1Mbit Parallel 55 ns 32-SOP

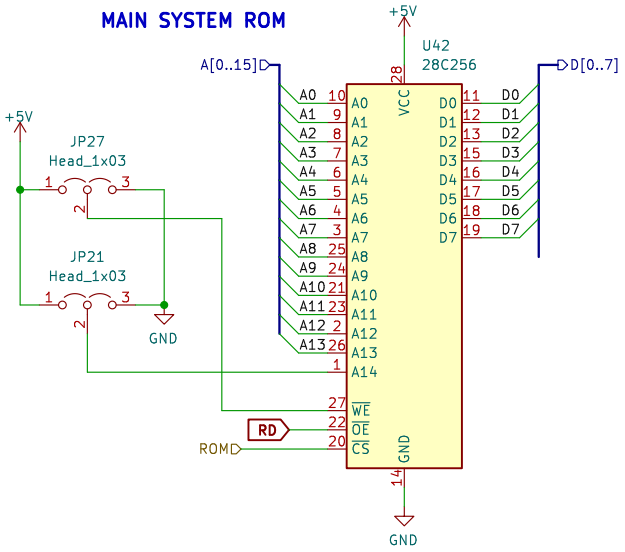
MAIN SYSTEM RAM

Mark Pruden

Sheet: /RAM/
File: TRS80IJP_RAM.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 6/21



Manufacturer : Microchip Technology
Part Number : AT28C256-15PU
Description : EEPROM Memory IC 256Kbit Parallel 150 ns 28-PDIP

32kB - 28 pin - $28

Manufacturer : Microchip Technology
Part Number : SST39SF010A-70-4C-PHE
Description : FLASH Memory IC 1Mbit Parallel 70 ns 32-PDIP

128 KB - 32 Pin $5

MAIN SYSTEM ROM

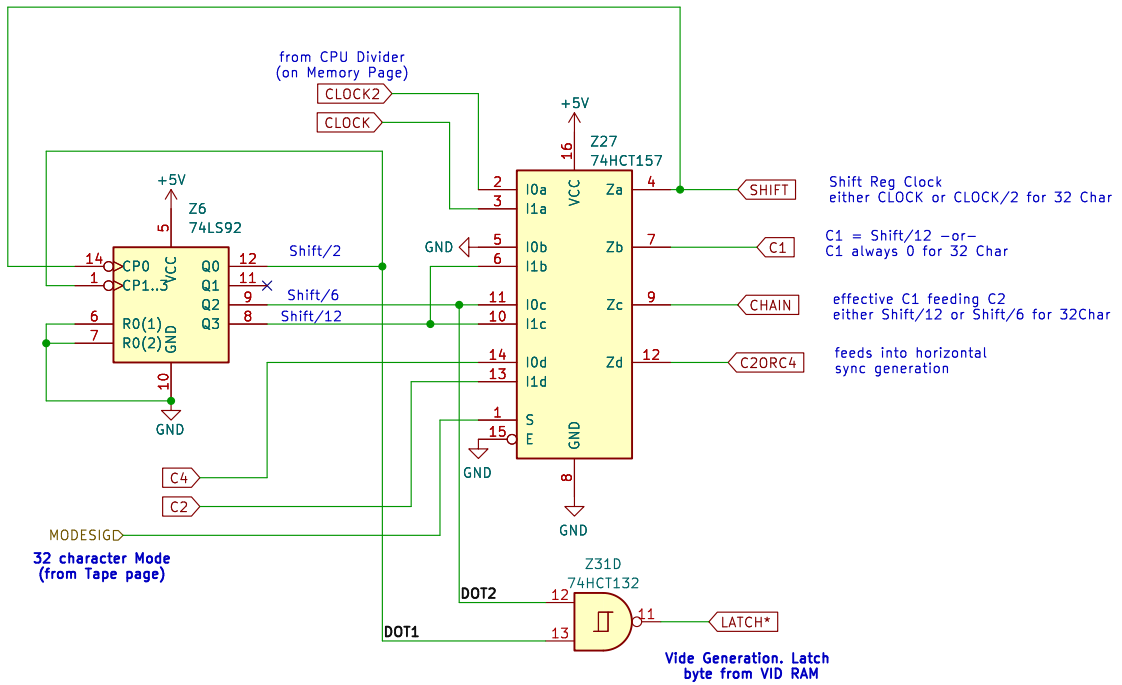
Mark Pruden

Sheet: /ROM/
File: TRS80IJP_ROM.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 7/21

32 CHAR MODE CONTROL



VIDEO 32 CHARACTER MODE SELECTION

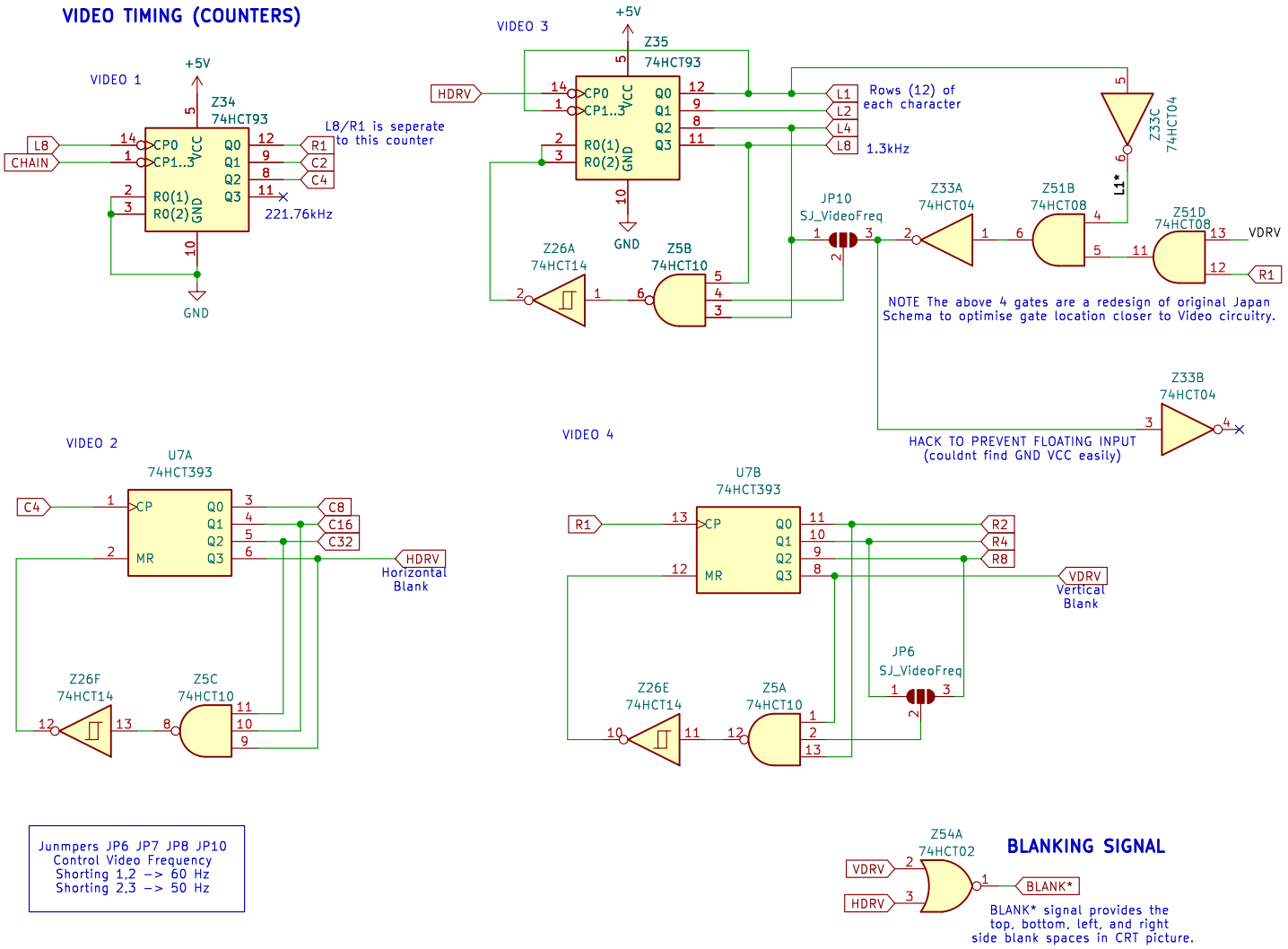
Mark Pruden

Sheet: /VIDEO MODE/
File: TRS80IJP_VIDMODE.kicad_sch

Title: TRS–80 Model 1K

Size: A4	Date: 2026–02–08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 10/21

VIDEO TIMING (COUNTERS)



Junmpers JP6 JP7 JP8 JP10
Control Video Frequency
Shorting 1,2 -> 60 Hz
Shorting 2,3 -> 50 Hz

BLANKING SIGNAL

BLANK* signal provides the top, bottom, left, and right side blank spaces in CRT picture.

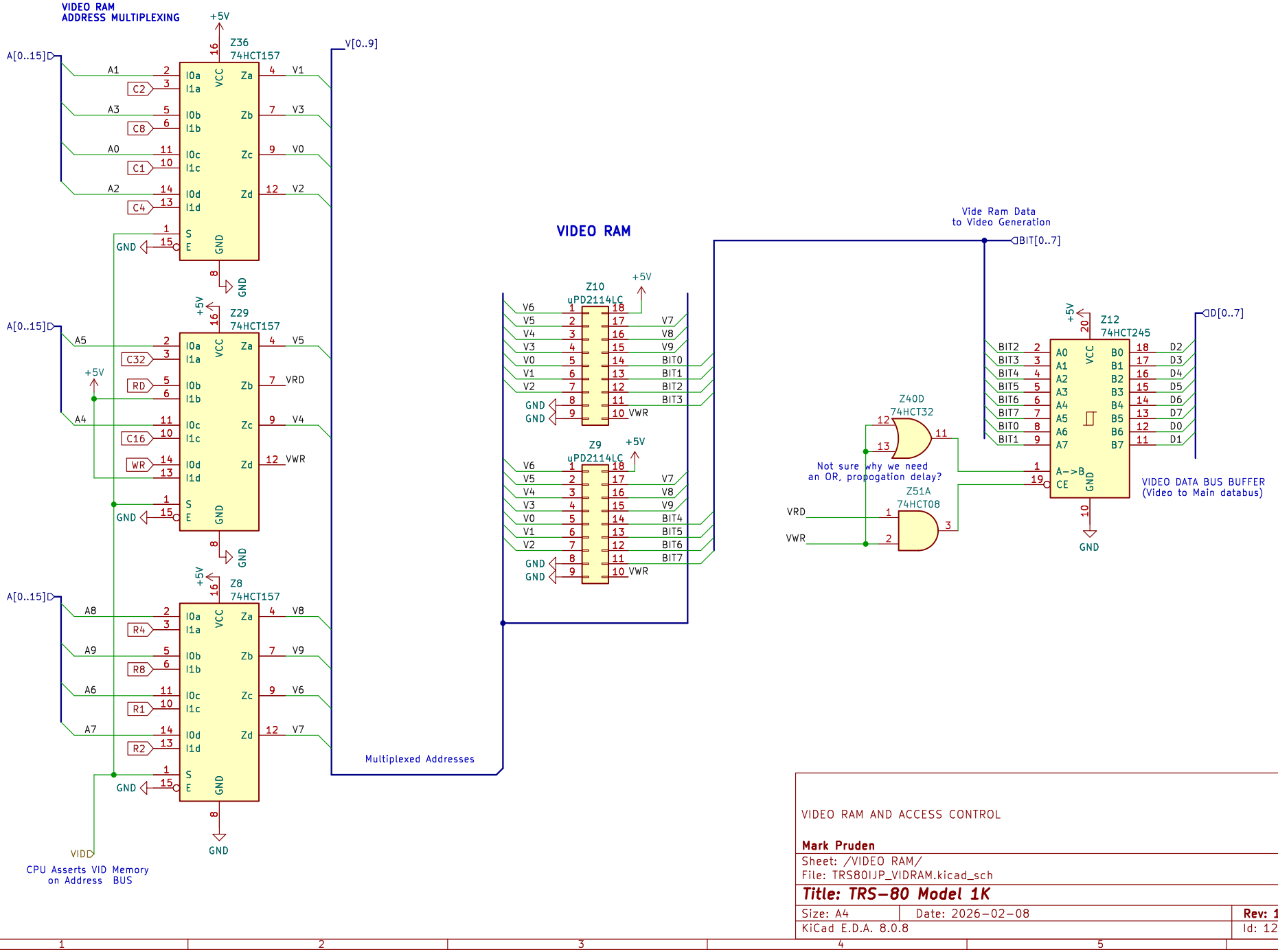
VIDEO TIMING COUNTERS

Mark Pruden

Sheet: /VIDEO TIMING/
File: TRS80IJP_TIMING.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 11/21



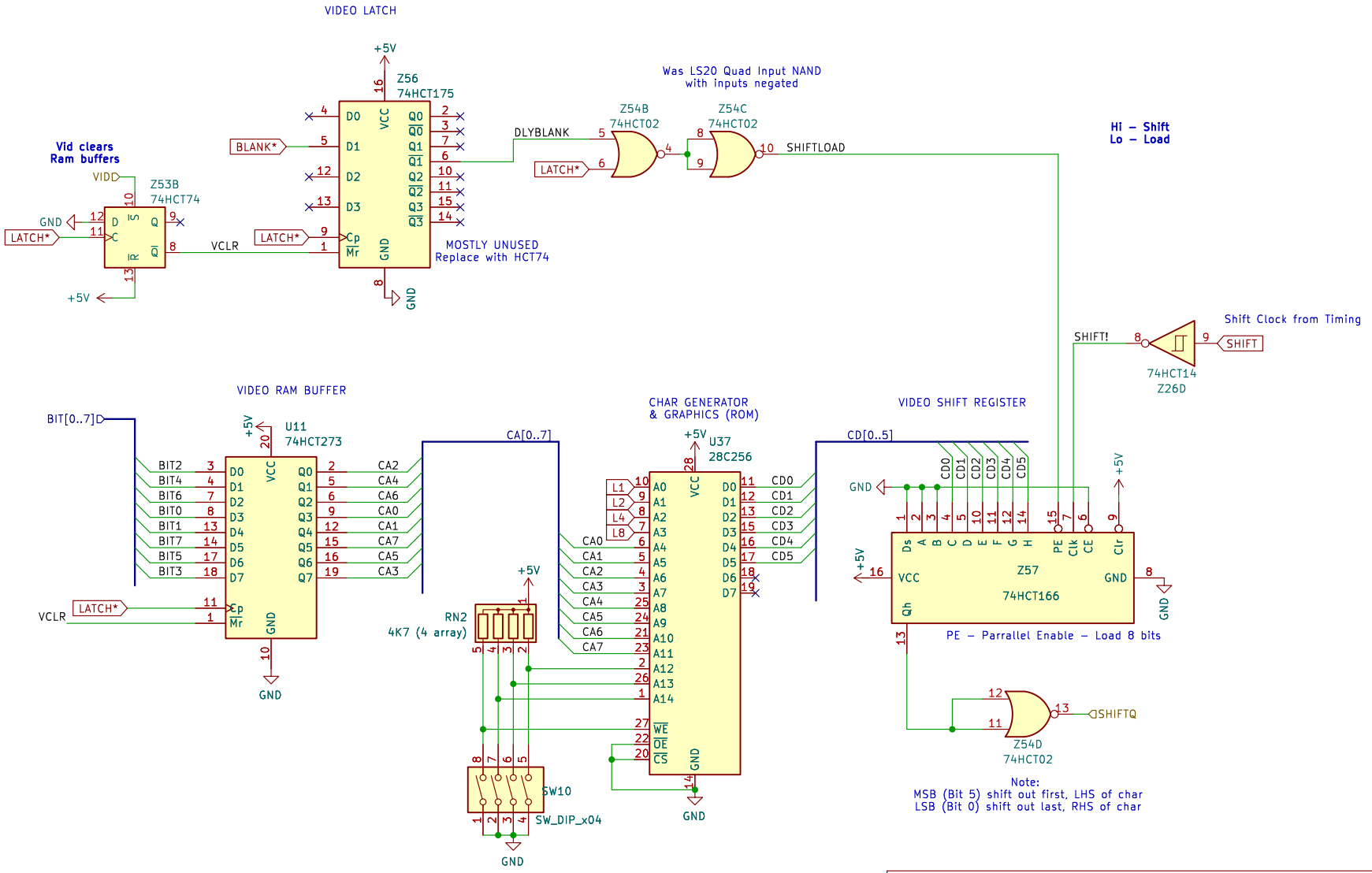
VIDEO RAM AND ACCESS CONTROL

Mark Pruden

Sheet: /VIDEO RAM/
File: TRS80IJP_VIDRAM.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 12/21



	SW1	SW2	SW3	SW4
28256	OFF	A14	A13	A12
27512	A14	A15	A13	A12
27256	A14	ON	A13	A12
27128	OFF	ON	A13	A12
2764	OFF	ON	---	A12

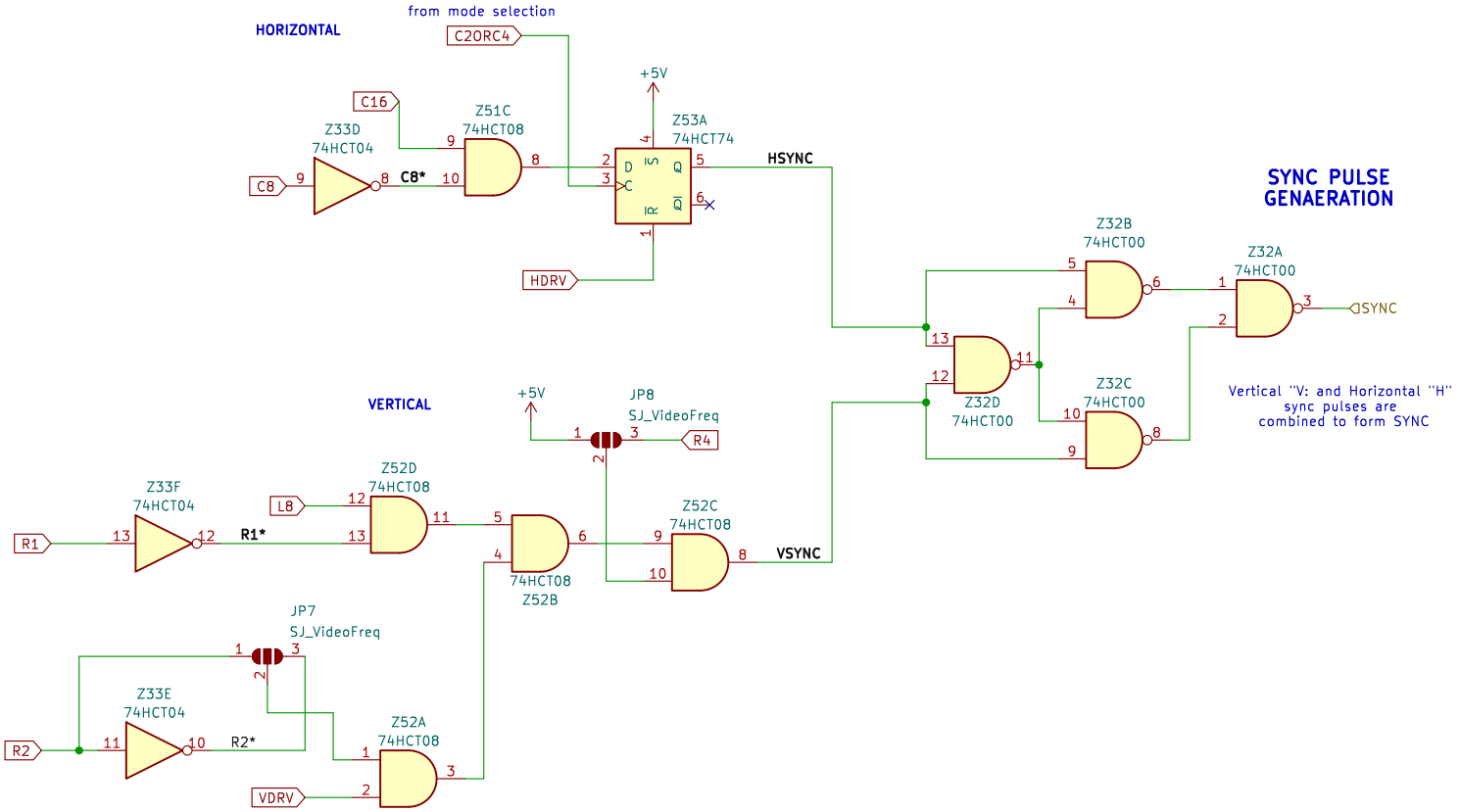
VIDEO PIXEL DATA GENERATION

Mark Pruden

Sheet: /VIDEO GEN/
File: TRS80IJP_VIDEO.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 13/21



Jumpers JP6 JP7 JP8 JP10
Control Video Frequency
Shorting 1,2 -> 60 Hz
Shorting 2,3 -> 50 Hz

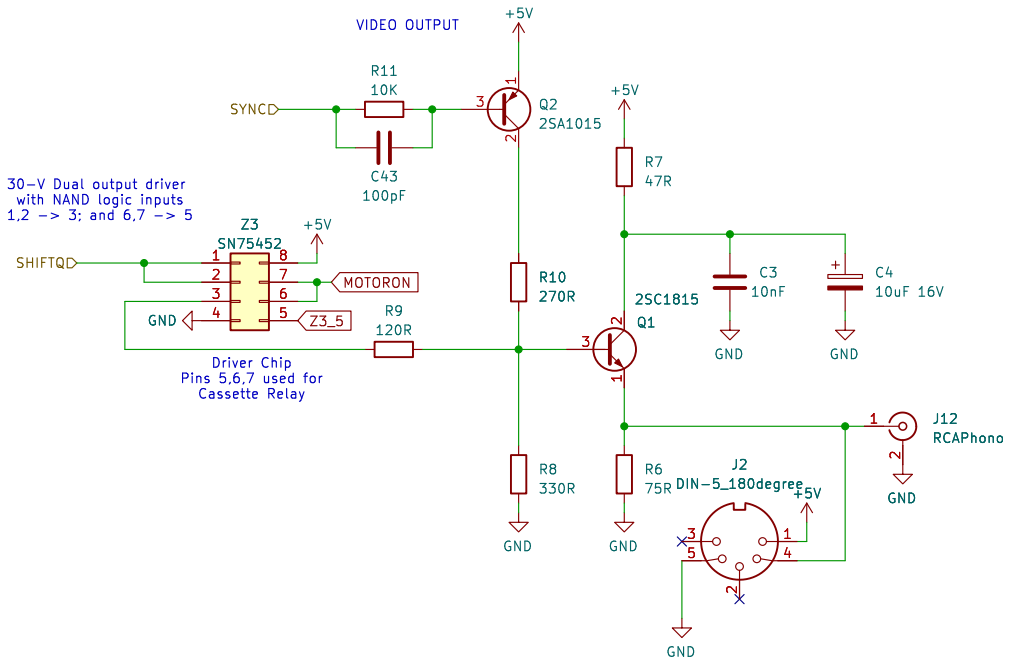
VIDEO SYNC GENERATION

Mark Pruden

Sheet: /VIDEO SYNC/
File: TRS80IJP_VIDSYNC.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 14/21



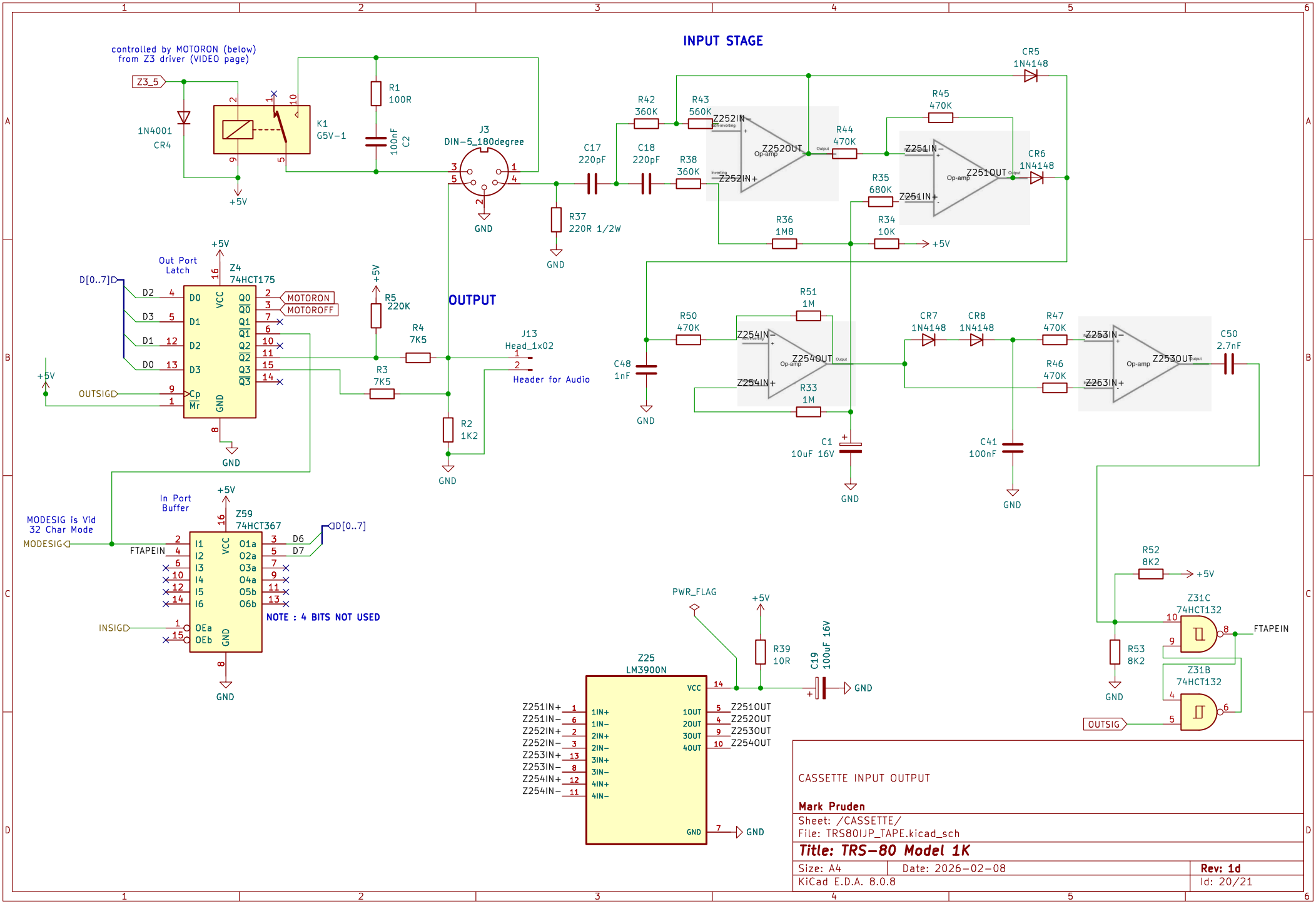
VIDEO OUTPUT MIXER

Mark Pruden

Sheet: /VIDEO OUT/
File: TRS80JP_VIDOUT.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 15/21



CASSETTE INPUT OUTPUT

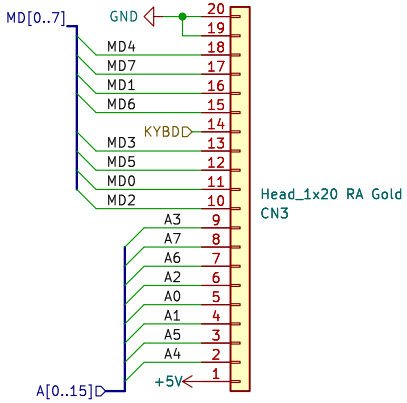
Mark Pruden

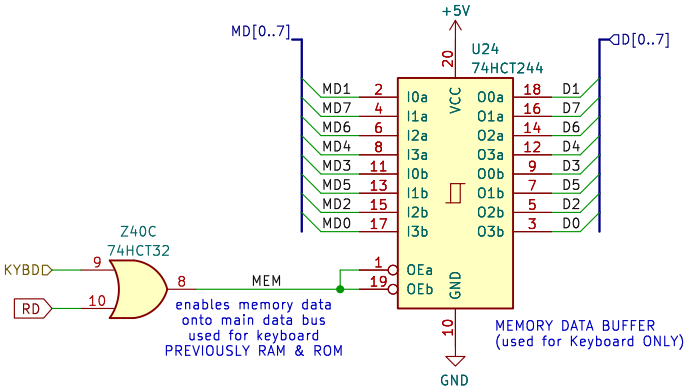
Sheet: /CASSETTE/
File: TRS80IJP_TAPE.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 20/21

KEYBOARD CONNECTOR





KEYBOARD CONNECTOR AND DATA BUS ACCESS

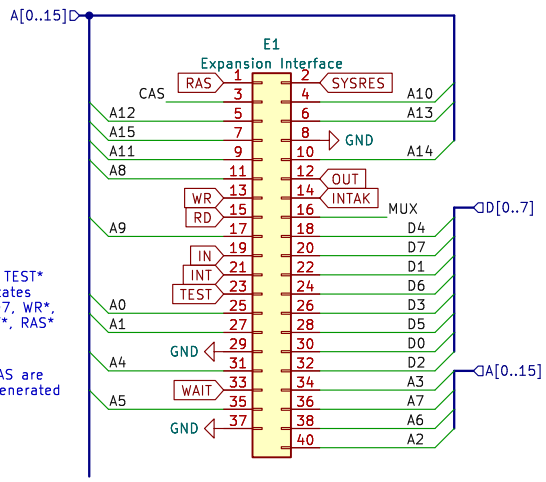
Mark Pruden

Sheet: /KEYBOARD/
File: TRS801JP_KB_CONN.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 21/21

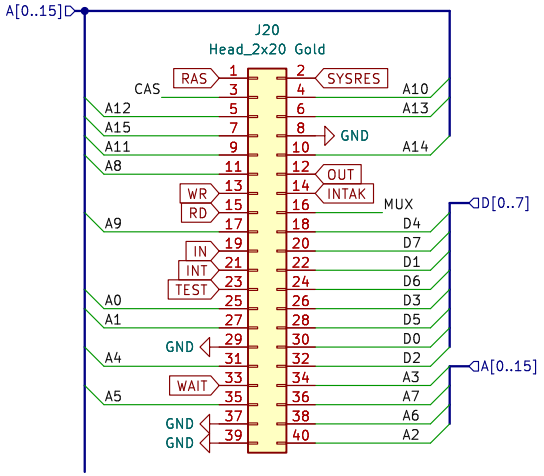
EXPANSION EDGE CONNECTOR

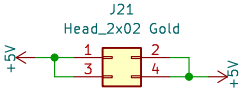


A logic 0 on TEST* input tri-states A0-A15, D0-D7, WR*, RD*, IN*, OUT*, RAS*

MUX and CAS are NO LONGER Generated

INTERNAL EXPANSION HEADER





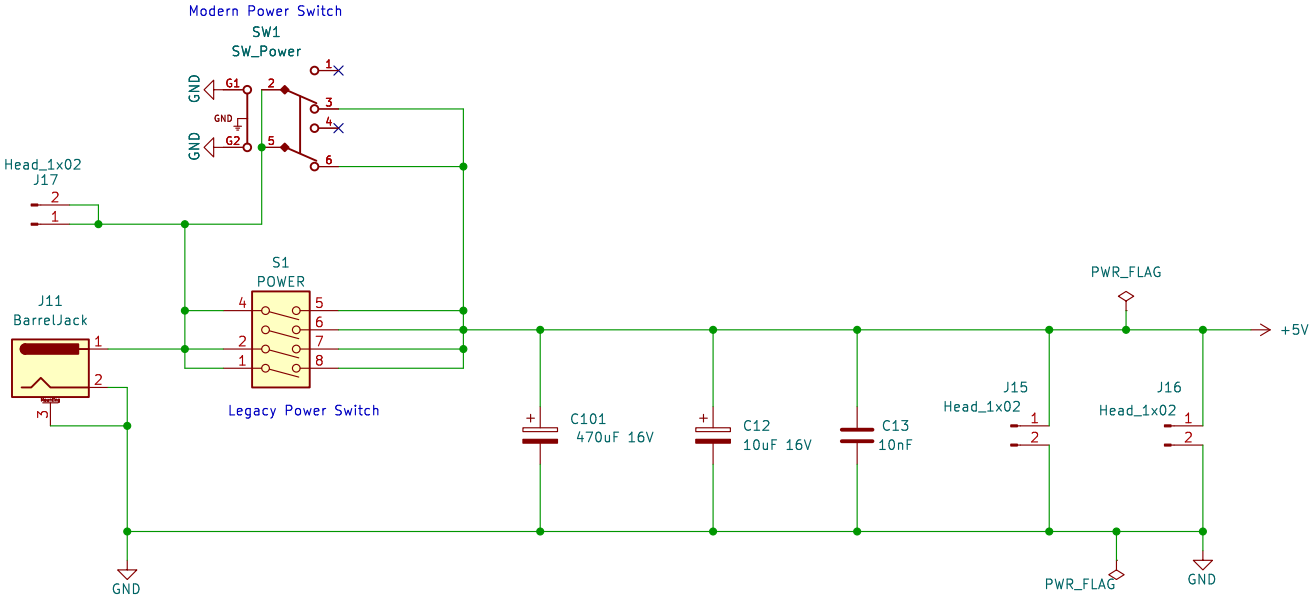
EXPANSION IO CONNECTOR

Mark Pruden

Sheet: /EXPANSION-I-O/
File: TRS80IJP_KEYBOARD.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 22/21



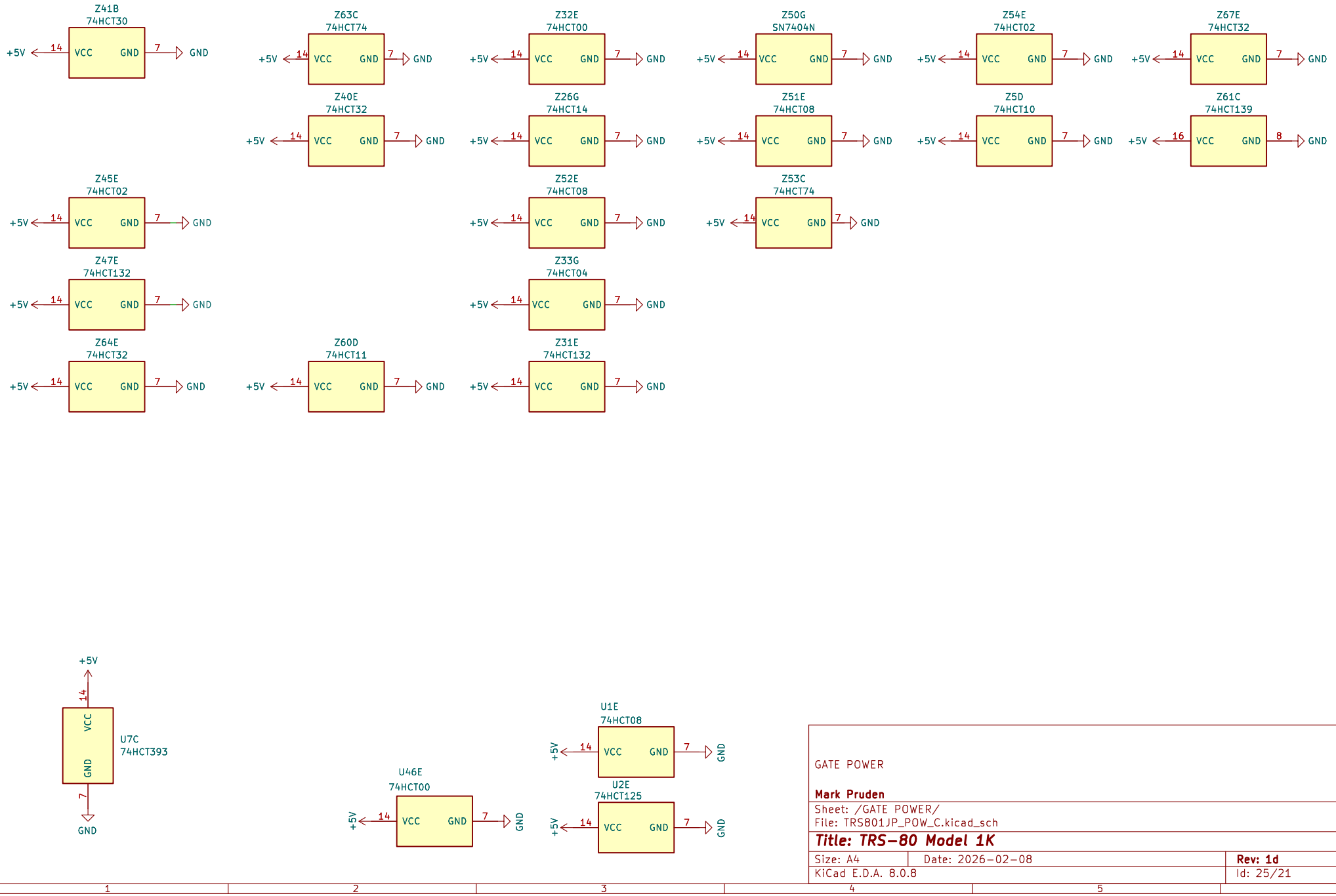
POWER INPUT AND SWITCHING

Mark Pruden

Sheet: /POWER/
File: TRS80IJP_POWER.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 23/21



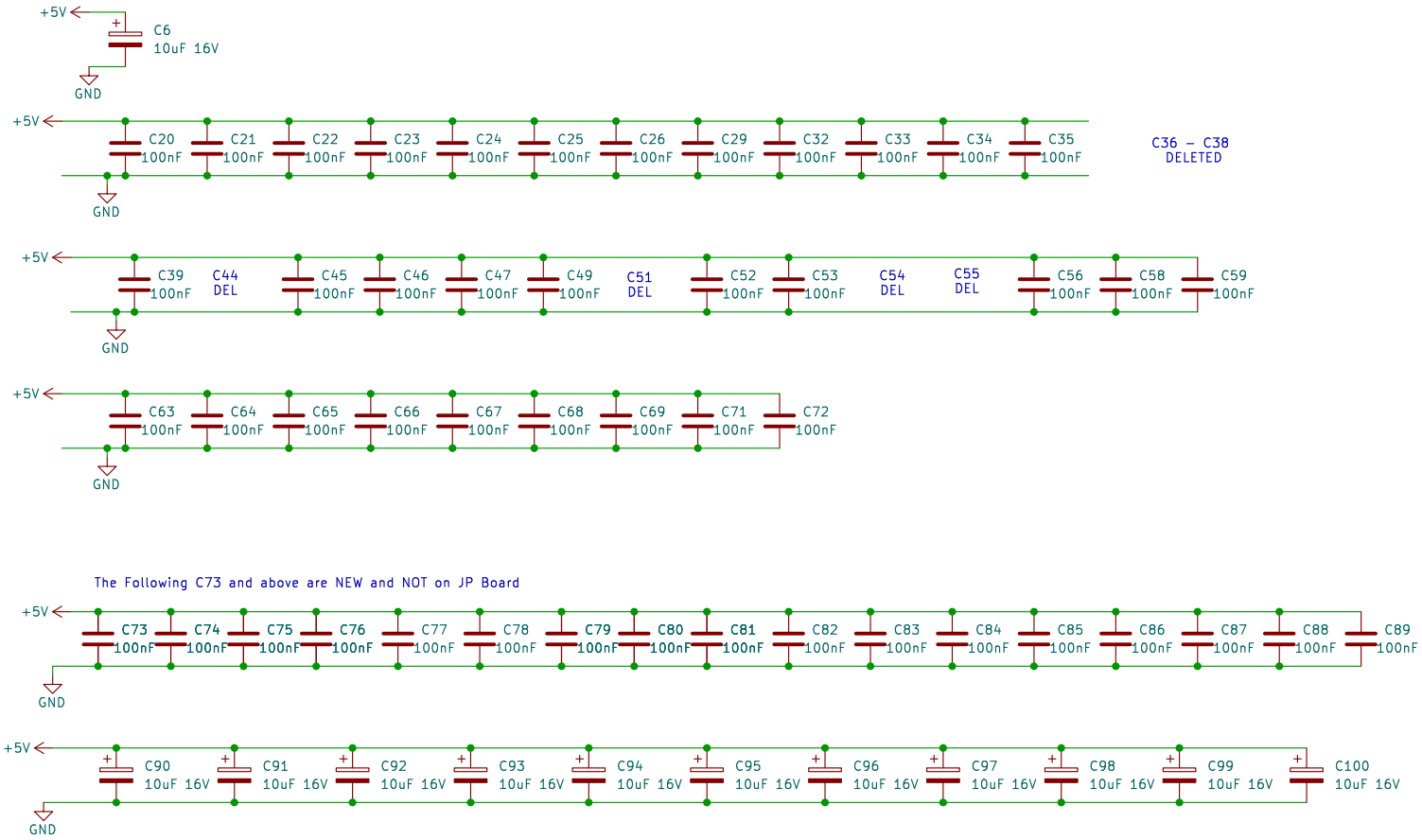
GATE POWER

Mark Pruden

Sheet: /GATE POWER/
File: TRS801JP_POW_C.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 25/21



POWER DECOUPLING CAPS

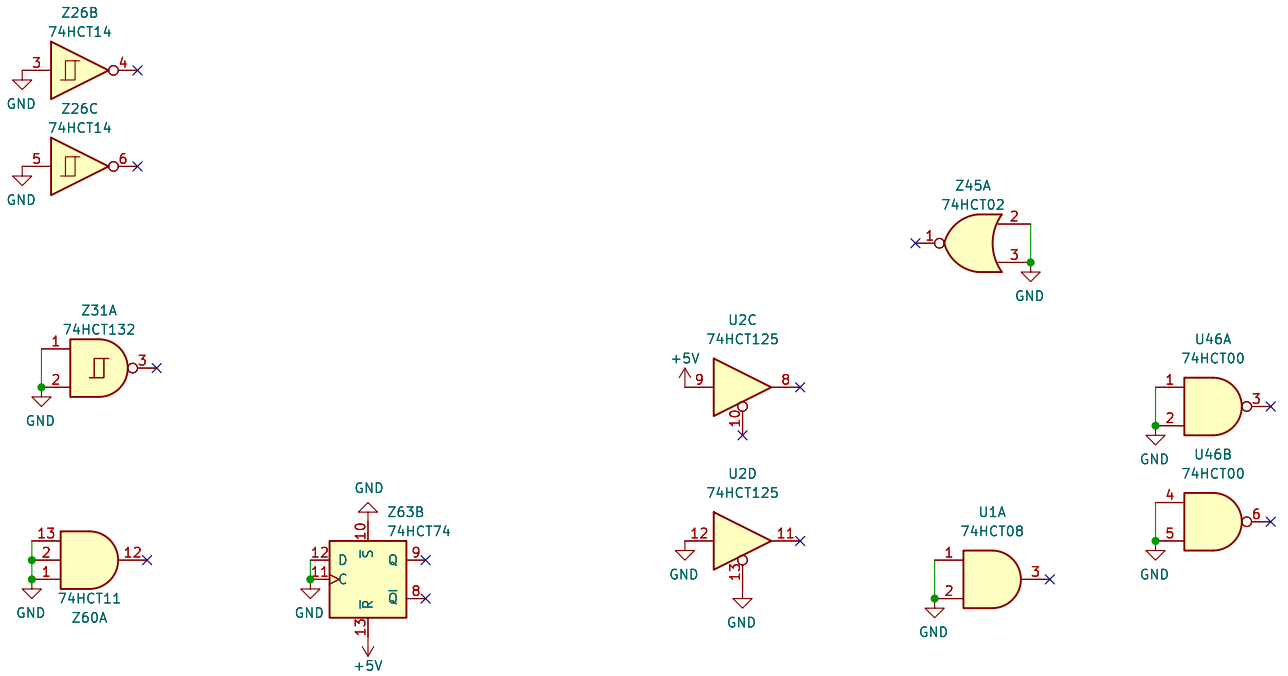
Mark Pruden

Sheet: /DECOUPLING/
File: TRS80JP_DECOUPLE.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 26/21

Spare Gates are SHOWN in general PHYSICAL LOCATION on the Board



UNUSED GATES

Mark Pruden

Sheet: /SPARE GATES/
File: TRS80IJP_SPARE.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 27/21

MOUNTING HOLES

H1
MountingHole

H2
MountingHole

H3
MountingHole

H4
MountingHole

H5
MountingHole

H6
MountingHole

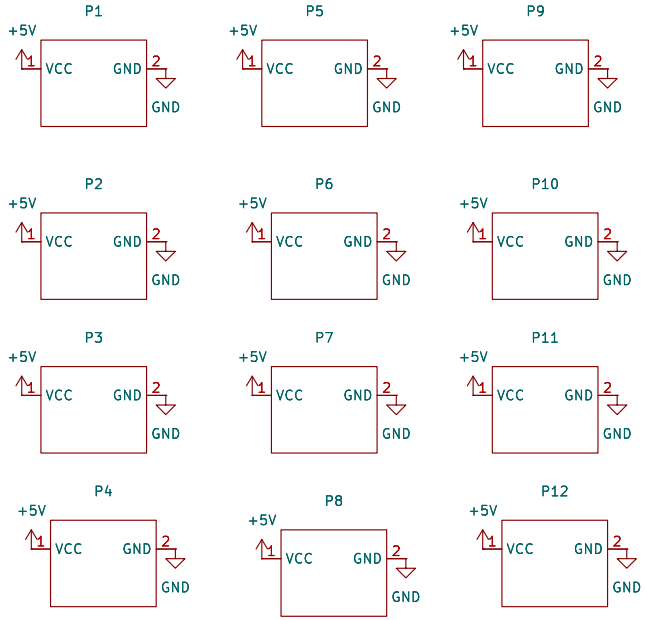
H7
MountingHole

H9
MountingHole

H8
MountingHole

H10
MountingHole
(FREHD BOARD)

PROTOTYPE AREAS



Jumpers for BOM (only) used to bridge Config Pin Headers

HARDWARE

Mark Pruden

Sheet: /HARDWARE/
File: TRS801JP_HW.kicad_sch

Title: TRS-80 Model 1K

Size: A4	Date: 2026-02-08	**Rev: 1d**
KiCad E.D.A. 8.0.8		Id: 28/21