bus

File: bus.kicad_sch

power

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buffers

File: buffers.kicad_sch

fpanel

File: fpanel.kicad_sch

Z80CPU

File: Z80CPU.kicad_sch

DMA

File: DMA.kicad_sch

GALS

File: GALS.kicad_sch

IM2

File: IM2.kicad_sch

waitstate

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mapper

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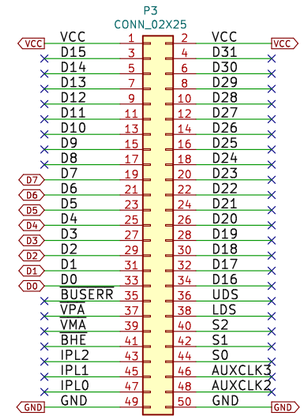

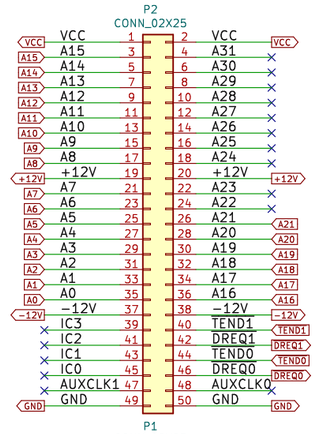

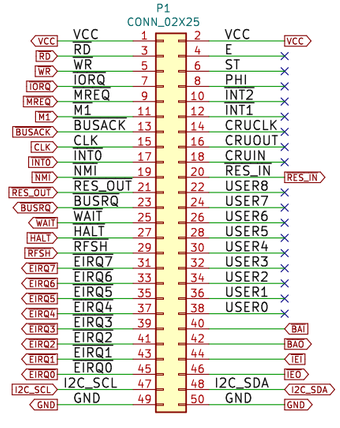

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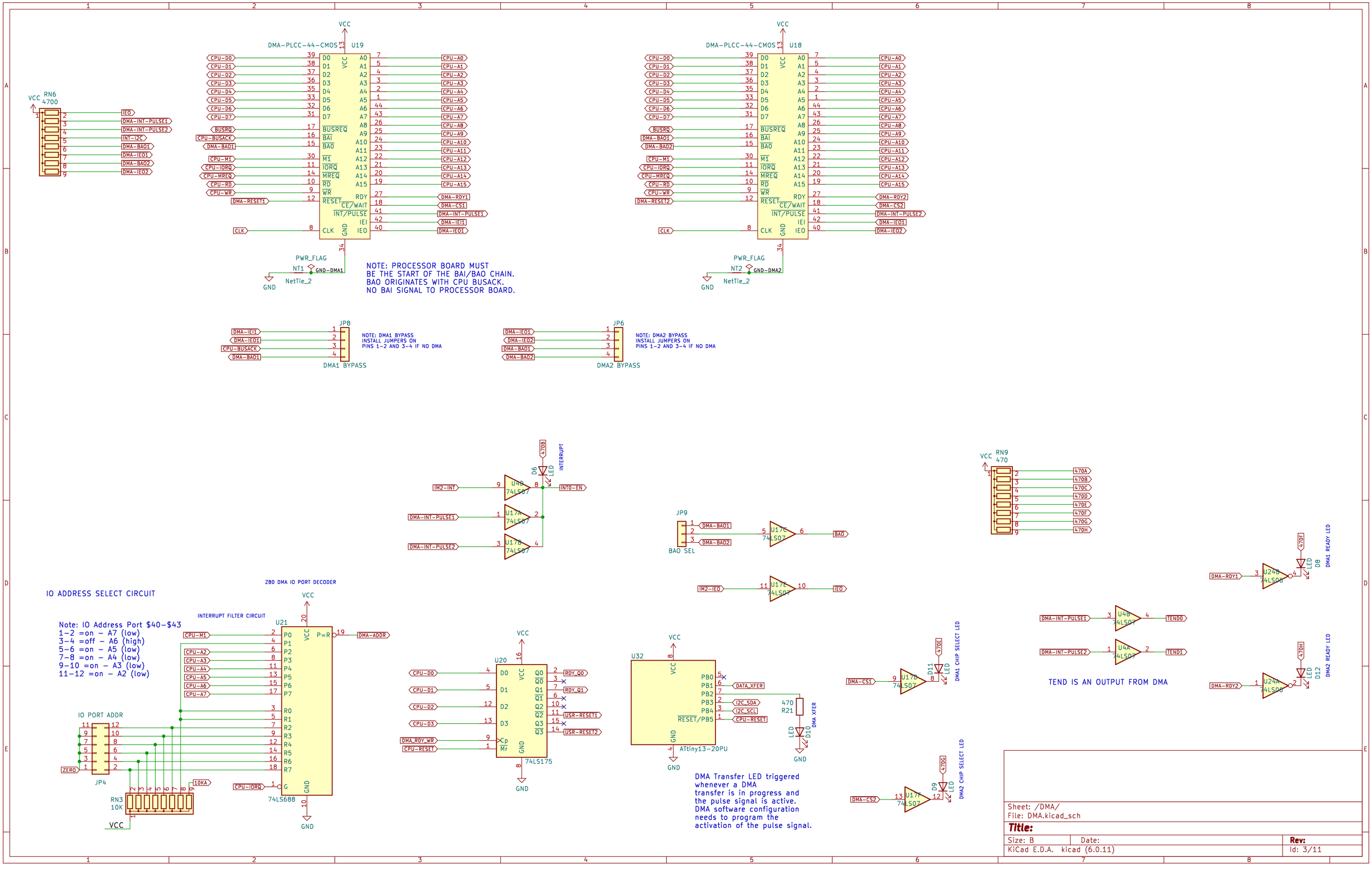

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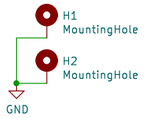
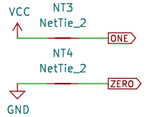
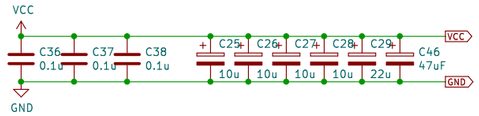
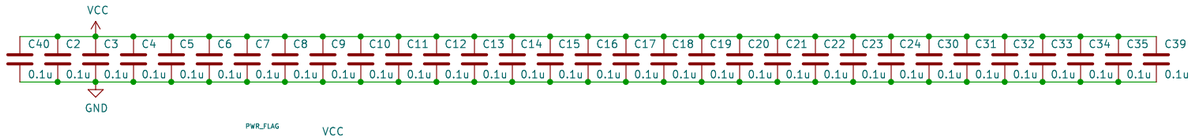
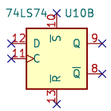


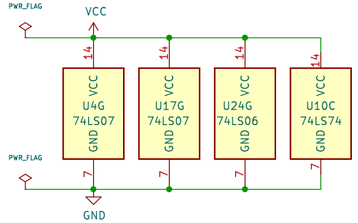






SPARE GATES





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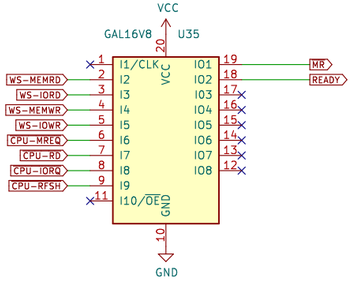
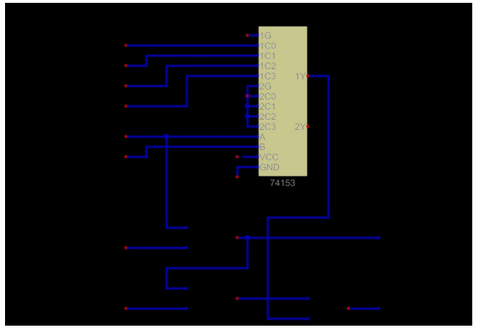
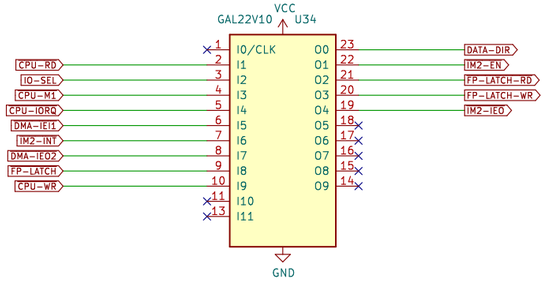
KiCad E.D.A. kicad (6.0.11)		Id: 4/11

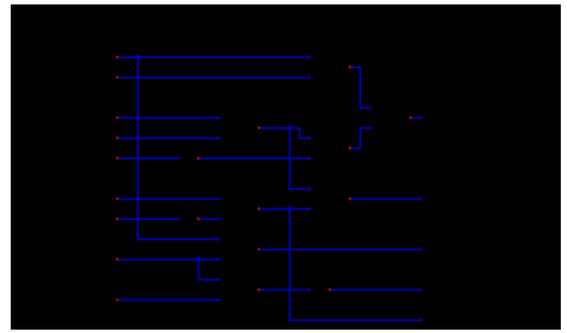
CPU WS GAL16V8

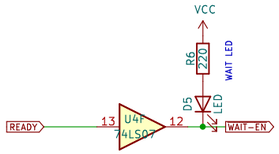




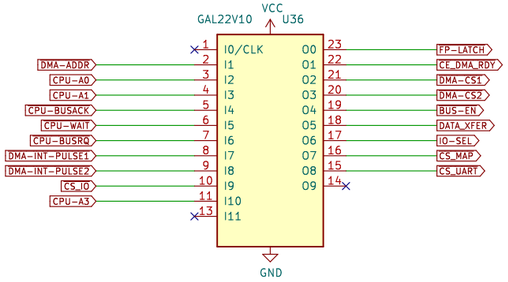
CPU DATA DIR GAL22V10

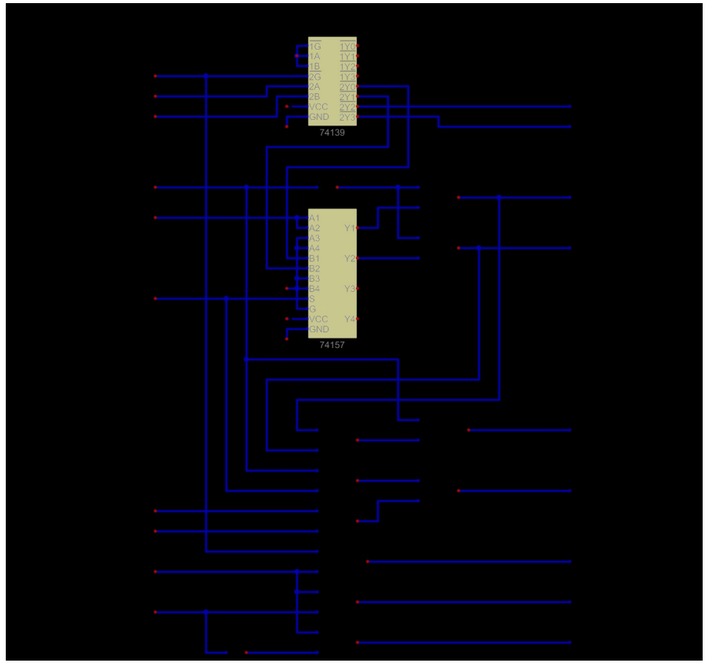




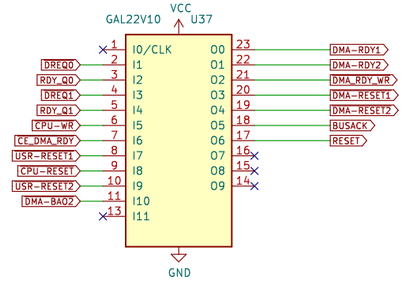


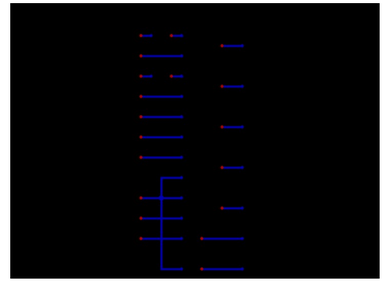
DMA CS V2 GAL22V10





DMA RDY GAL22V10





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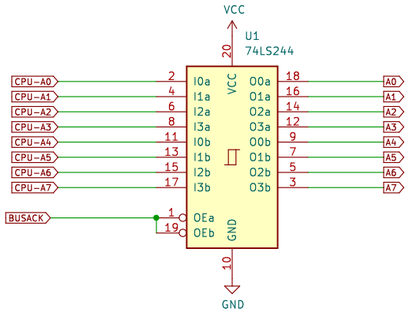
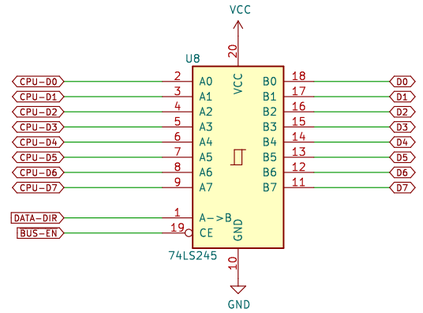
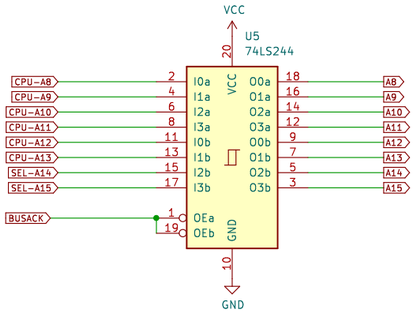
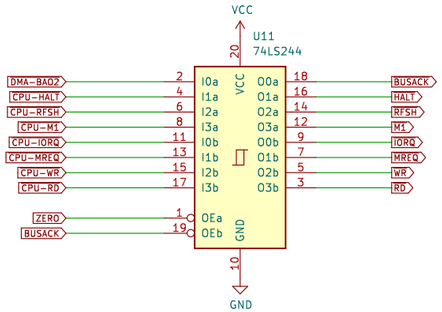
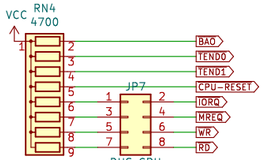
Z80 BUS INTERFACE

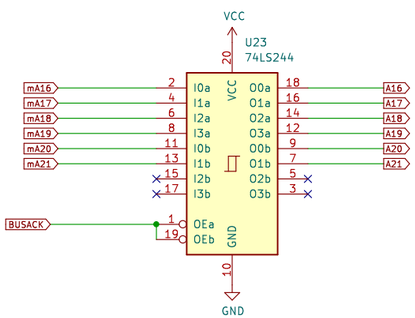


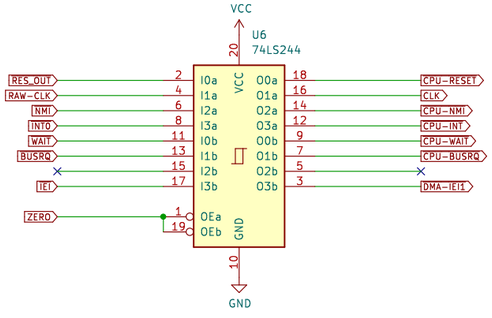


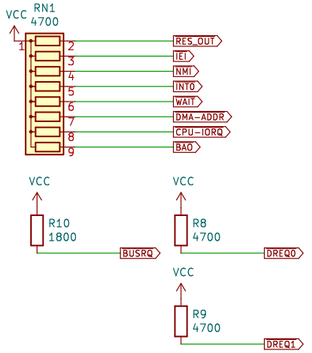












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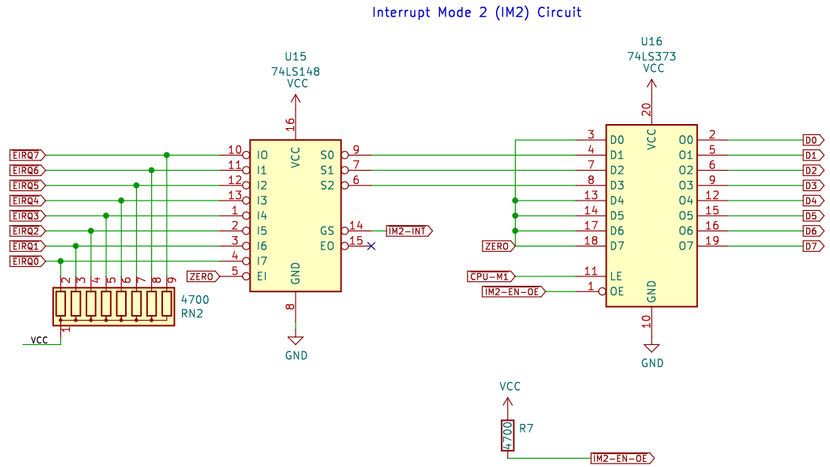

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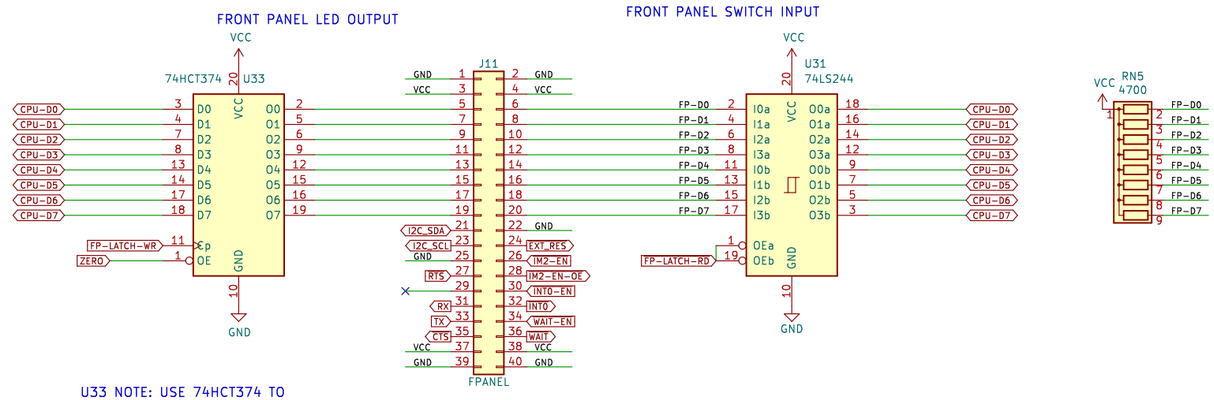

U33 NOTE: USE 74HCT374 TO SOURCE OR SINK ADEQUATE CURRENT TO DRIVE LEDS ON FRONT PANEL

J11 NOTE:

PINS 5, 7, 9, 11, 13, 15, 17, 19 ARE FOR LED STATUS FOR ROMWBW FRONT PANEL INDICATOR

PINS 6, 8, 10, 12, 14, 16, 18, 20 ARE FOR SWITCH INPUTS FOR ROMWBW FRONT PANEL

PINS 21, 23 ARE FOR I2C CONNECTION (SDA & SCL)

PINS 25, 27, 29, 31, 33, AND 35 ARE FOR TTL SERIAL CONNECTOR TO UART

PINS 29, 37 ARE FOR SERIAL VCC POWER ENABLE

PINS 22, 24 ARE FOR EXTERNAL RESET SWITCH

PINS 26, 28 ARE FOR IM2 CIRCUIT ENABLE

PINS 30, 32 ARE FOR INTERRUPT 0 ENABLE

PINS 34, 36 ARE FOR WAIT STATE CIRCUIT ENABLE

Sheet: /fpanel/
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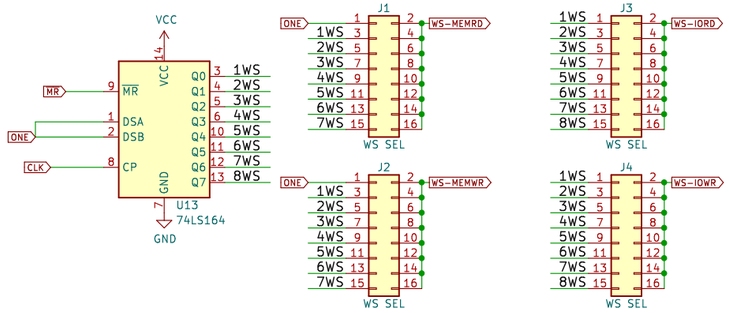
KiCad E.D.A. kicad (6.0.11) | Id: 8/11

Wait State Generator Circuit



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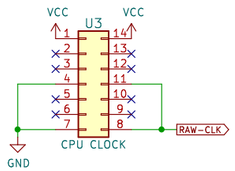
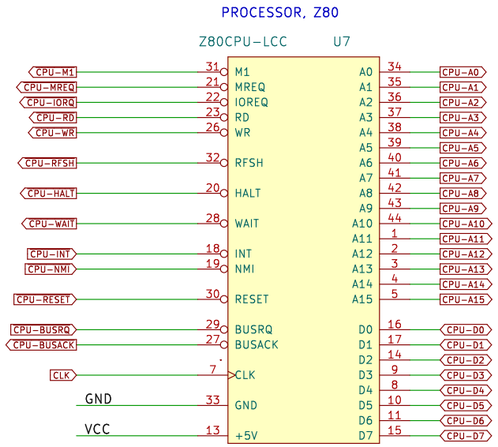
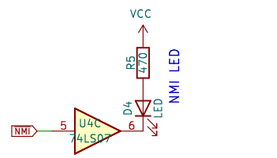
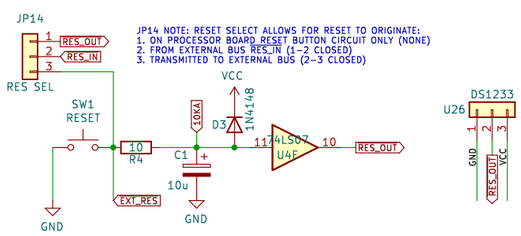




Tri-state address, data, & control bus during DMA





Reset Button Circuit

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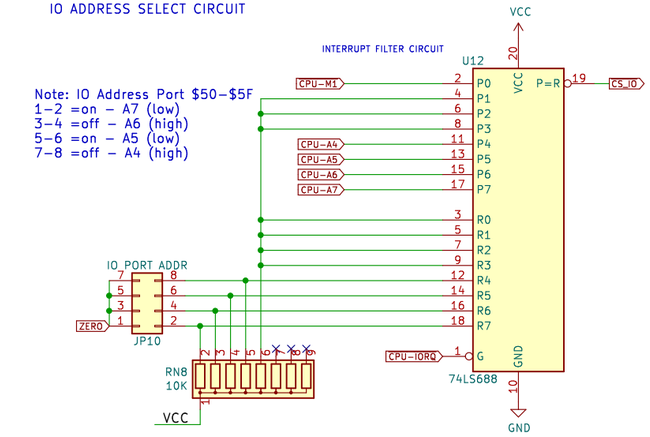
KiCad E.D.A. kicad (6.0.11)		Id: 10/11

IO ADDRESS SELECT CIRCUIT

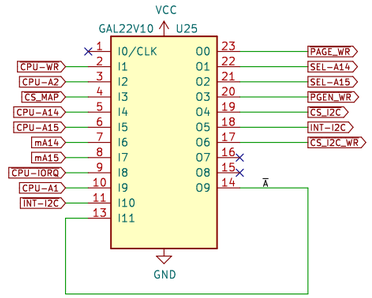
Z80 MEMORY MAPPER AND
EXPANSION IO PORT DECODER

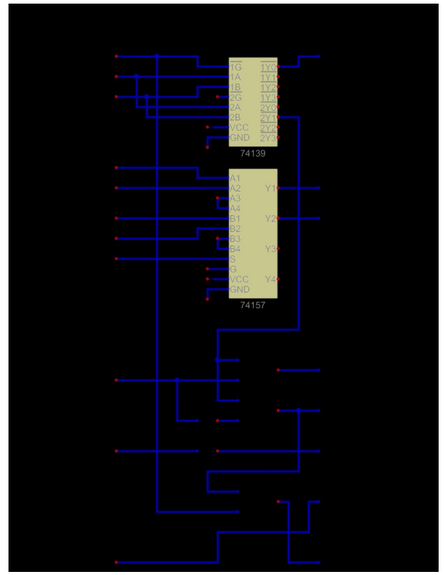
INTERRUPT FILTER CIRCUIT

Note: IO Address Port $50-$5F
1-2 =on - A7 (low)
3-4 =off - A6 (high)
5-6 =on - A5 (low)
7-8 =off - A4 (high)

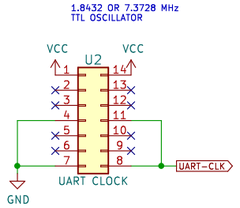


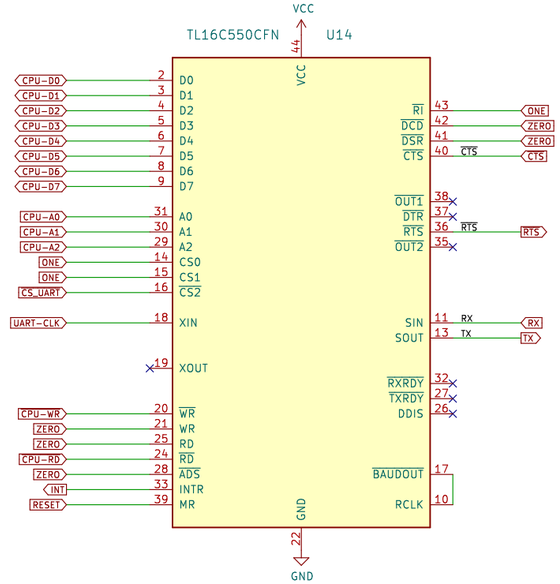
CPU MAPPER V2 GAL22V10



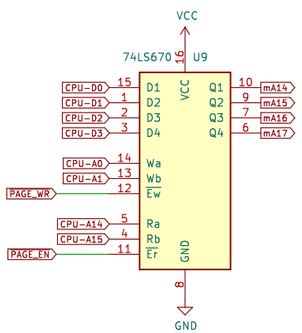


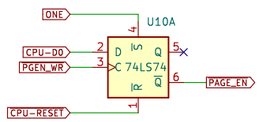
1.8432 OR 7.3728 MHz
TTL OSCILLATOR

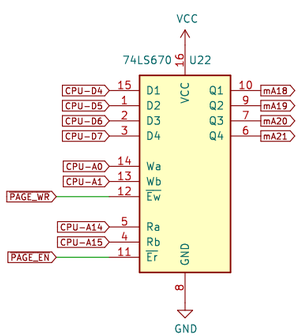




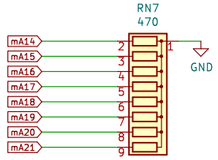
MEMORY PAGING SRAMS



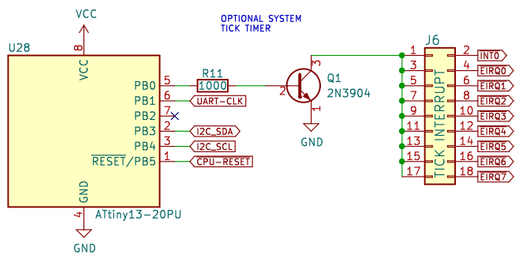


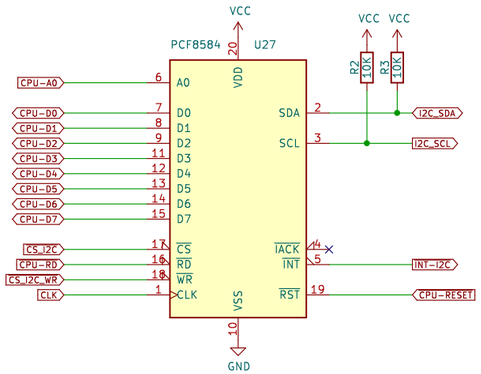


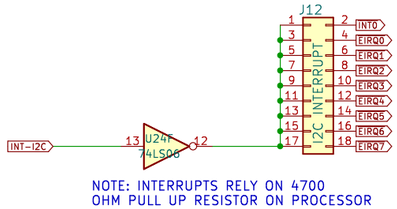
UPPER ADDRESS LINES
PULL-DOWN RESISTORS



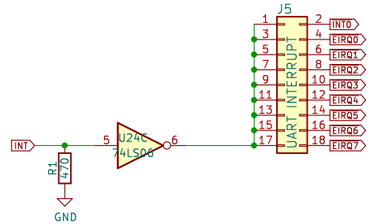
OPTIONAL SYSTEM
TICK TIMER







NOTE: INTERRUPTS RELY ON 4700
OHM PULL UP RESISTOR ON PROCESSOR



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KiCad E.D.A. kicad (6.0.11) | Id: 11/11