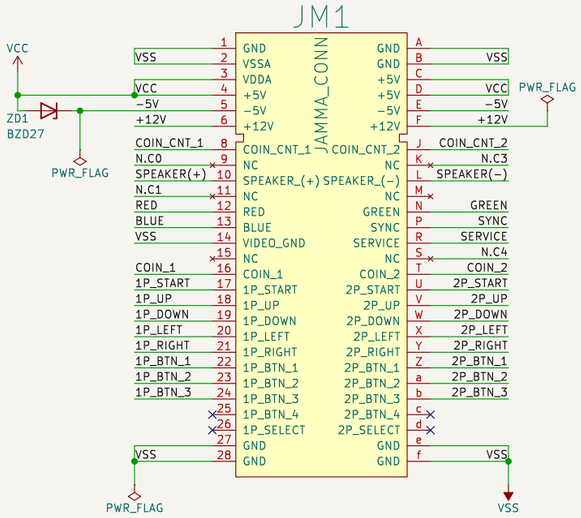
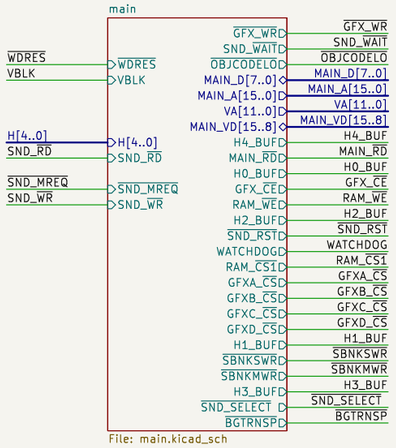
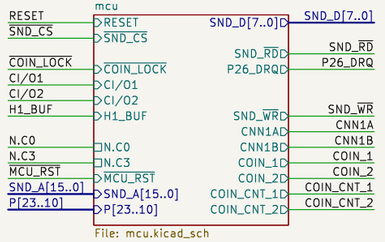
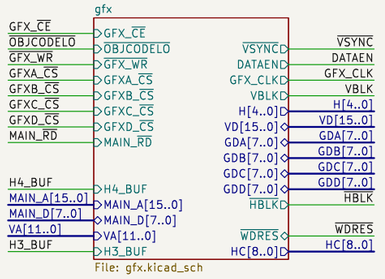
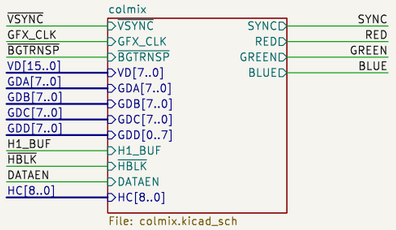
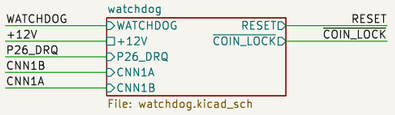


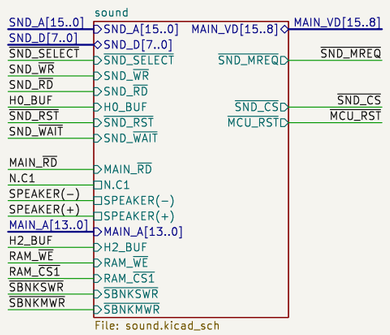




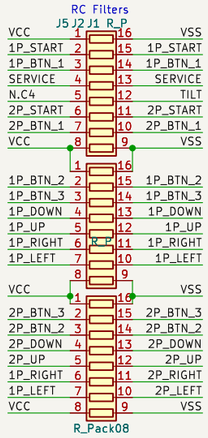


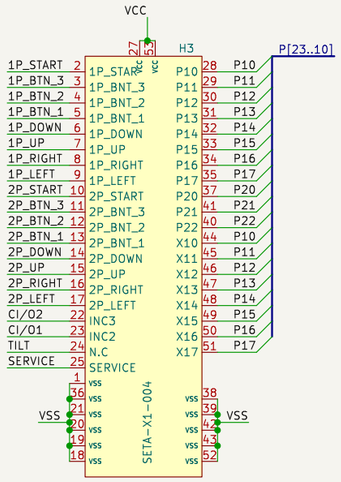






CABINET I/O





JOTEGO

Sheet: /
File: exterm.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	Rev: José Tejada G.
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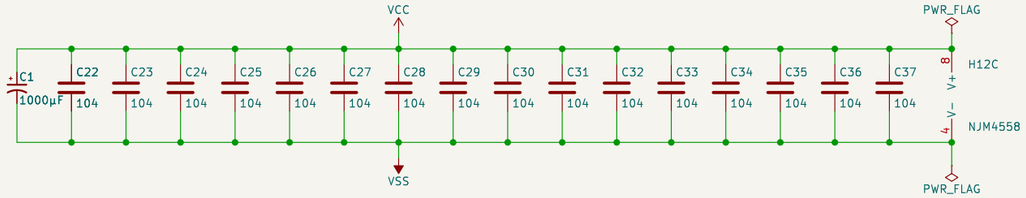

H5E
74LS02

B7C
74LS74

B4C
74LS74

B3C
74LS74

B2E
74LS08

G13G
74LS04

C6E
74LS32

B6E
74LS08

B1G
74LS04

JOTEGO

Sheet: /capacitors/
File: capacitors.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
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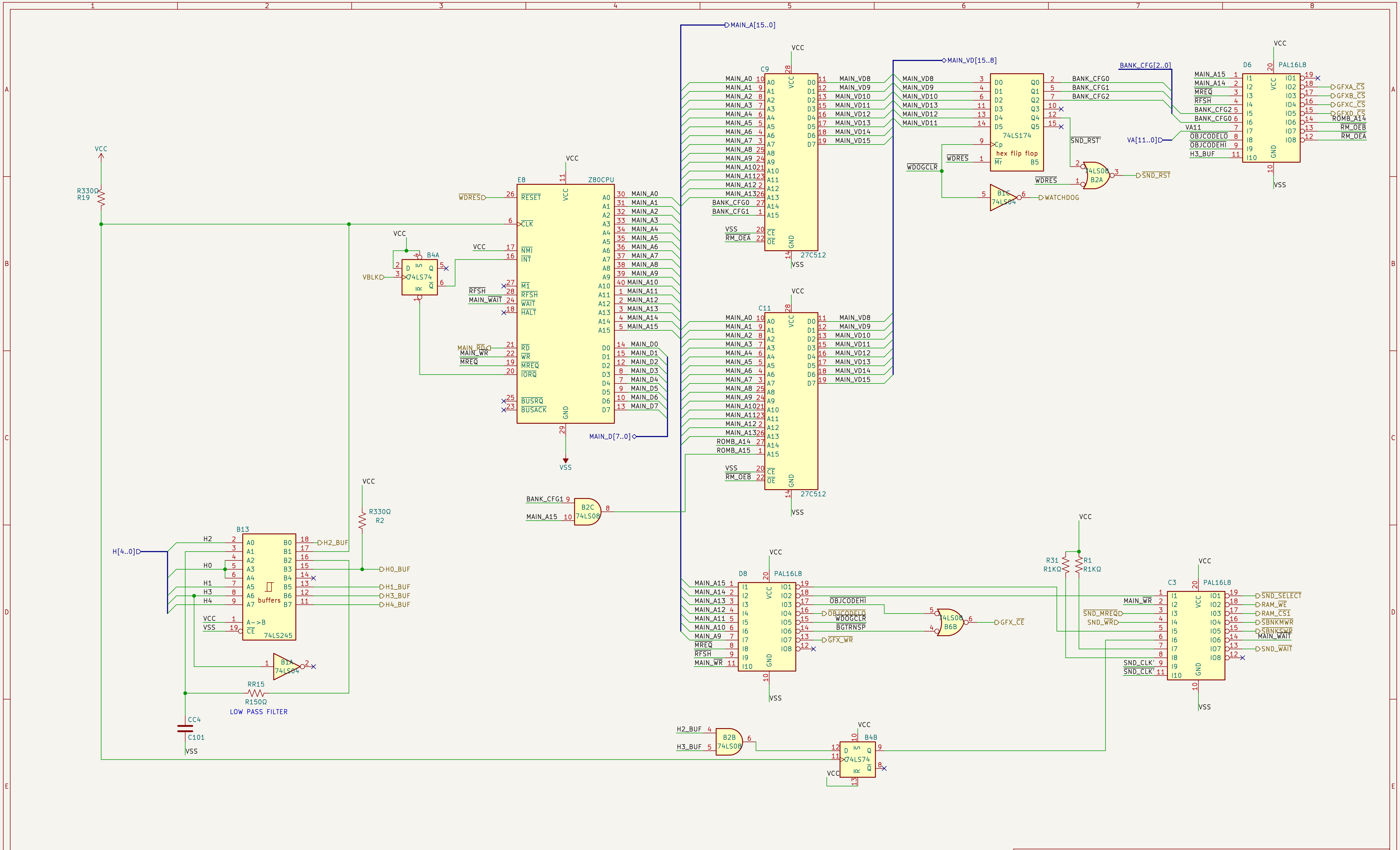
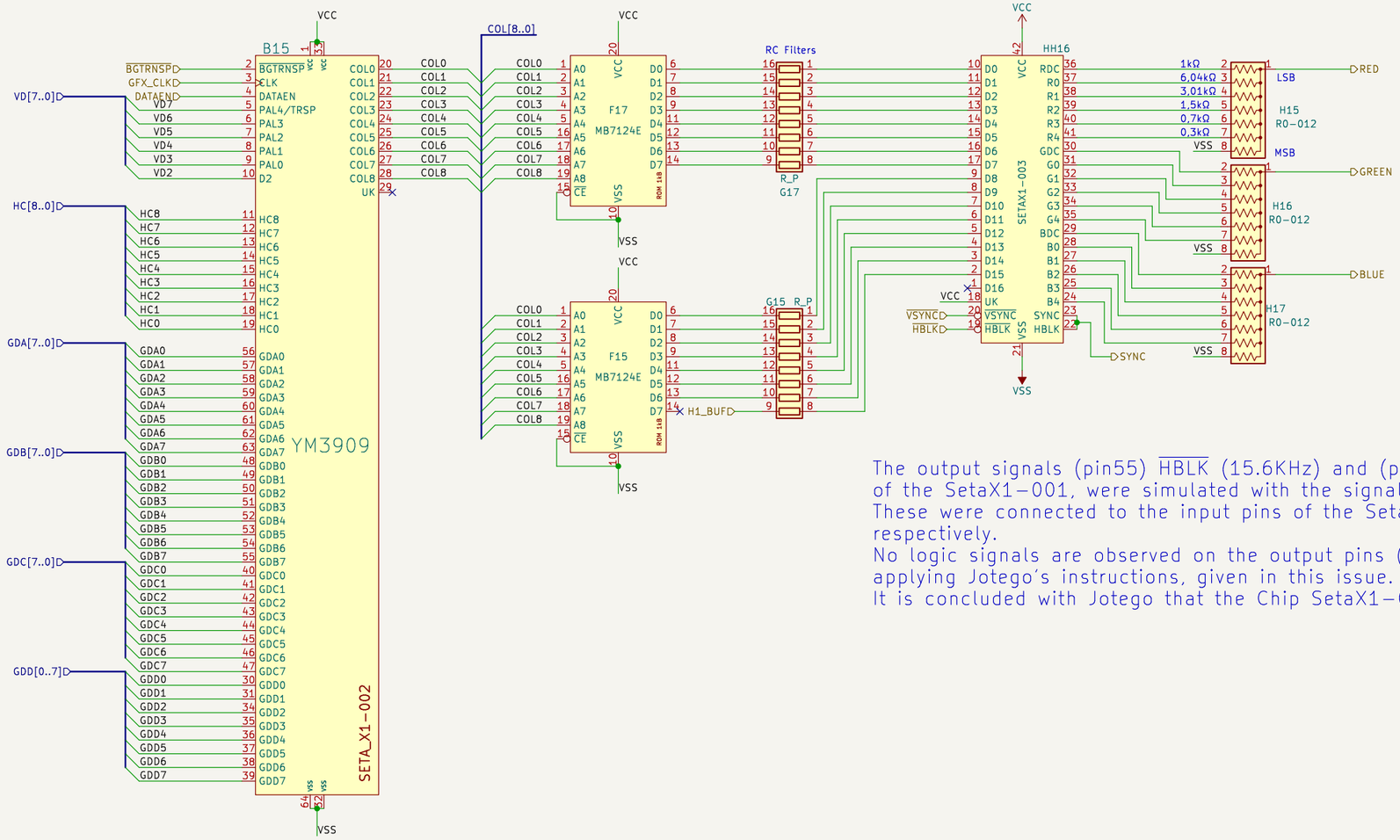


MAIN_A[15..0]
MAIN_VD[15..8]
BANK_CFG[2..0]
VCC
VSS
R330Ω
R19
R2
E8
Z80CPU
WDRES
RESET
CLK
NMI
INT
M1
RFSH
WAIT
HALT
MAIN_RD
MAIN_WR
MREQ
IORQ
BUSRQ
BUSACK
MAIN_WAIT
MAIN_D[7..0]
VBLK
B4A
74LS74
C9
27C512
C11
RM_OEA
RM_OEB
ROMB_A14
ROMB_A15
BANK_CFG0
BANK_CFG1
BANK_CFG2
74LS174
hex flip flop
B5
WDOGCLR
SND_RST'
SND_RST
B2A
74LS08
B1C
74LS04
WATCHDOG
D6
PAL16L8
VA[11..0]
VA11
OBJCODELO
OBJCODEHI
H3_BUF
GFXA_CS
GFXB_CS
GFXC_CS
GFXD_CS
B2C
MAIN_A15
H[4..0]
B13
74LS245
buffers
A->B
H2_BUF
H0_BUF
H1_BUF
H3_BUF
H4_BUF
B1A
RR15
R150Ω
LOW PASS FILTER
CC4
C101
D8
GFX_WR
BGTRNSP
B6B
GFX_CE
C3
R31
R1KΩ
R1
SND_MREQ
SND_WR
SND_SELECT
RAM_WE
RAM_CS1
SBNKMWR
SBNKSWR
SND_WAIT
SND_CLK'
B2B
B4B

JOTEGO
Sheet: /main/
File: main.kicad_sch

Title: EXTERMINATION

Size: A3 Date: 29/08/2022 Rev: José Tejada G.
KiCad E.D.A. 8.0.9 Id: 3/10



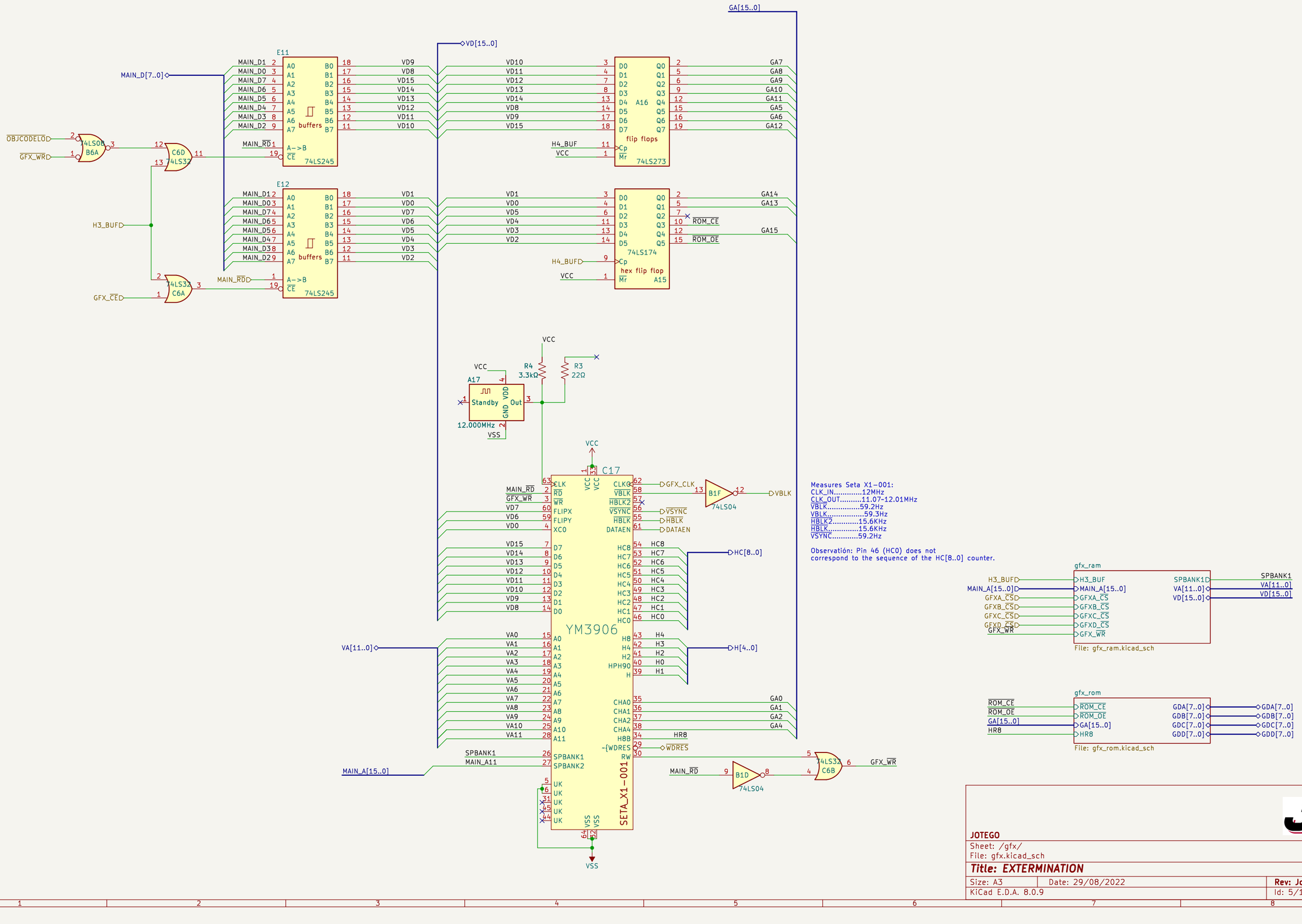
The output signals (pin55) $\overline{\text{HBLK}}$ (15.6KHz) and (pin56) $\overline{\text{VSYNC}}$ (59.2 Hz) of the SetaX1−001, were simulated with the signal generator and an inverter. These were connected to the input pins of the SetaX01−003 (pin 19 − 20), respectively.
No logic signals are observed on the output pins (22−23) HBLK − SYNC, applying Jotego's instructions, given in this issue.
It is concluded with Jotego that the Chip SetaX1−001 is broken.

JOTEGO

Sheet: /colmix/
File: colmix.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 4/10

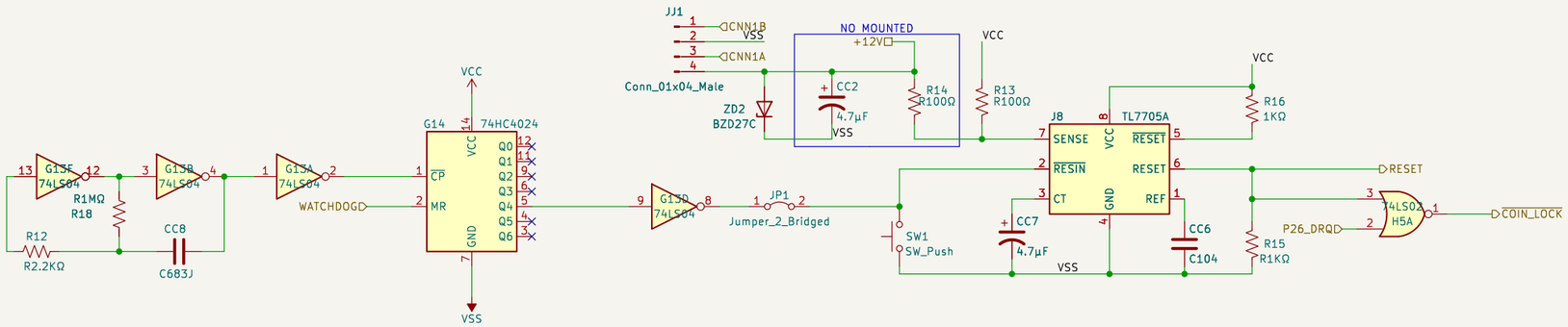


JOTEGO

Sheet: /gfx/
File: gfx.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 5/10



JOTEGO		
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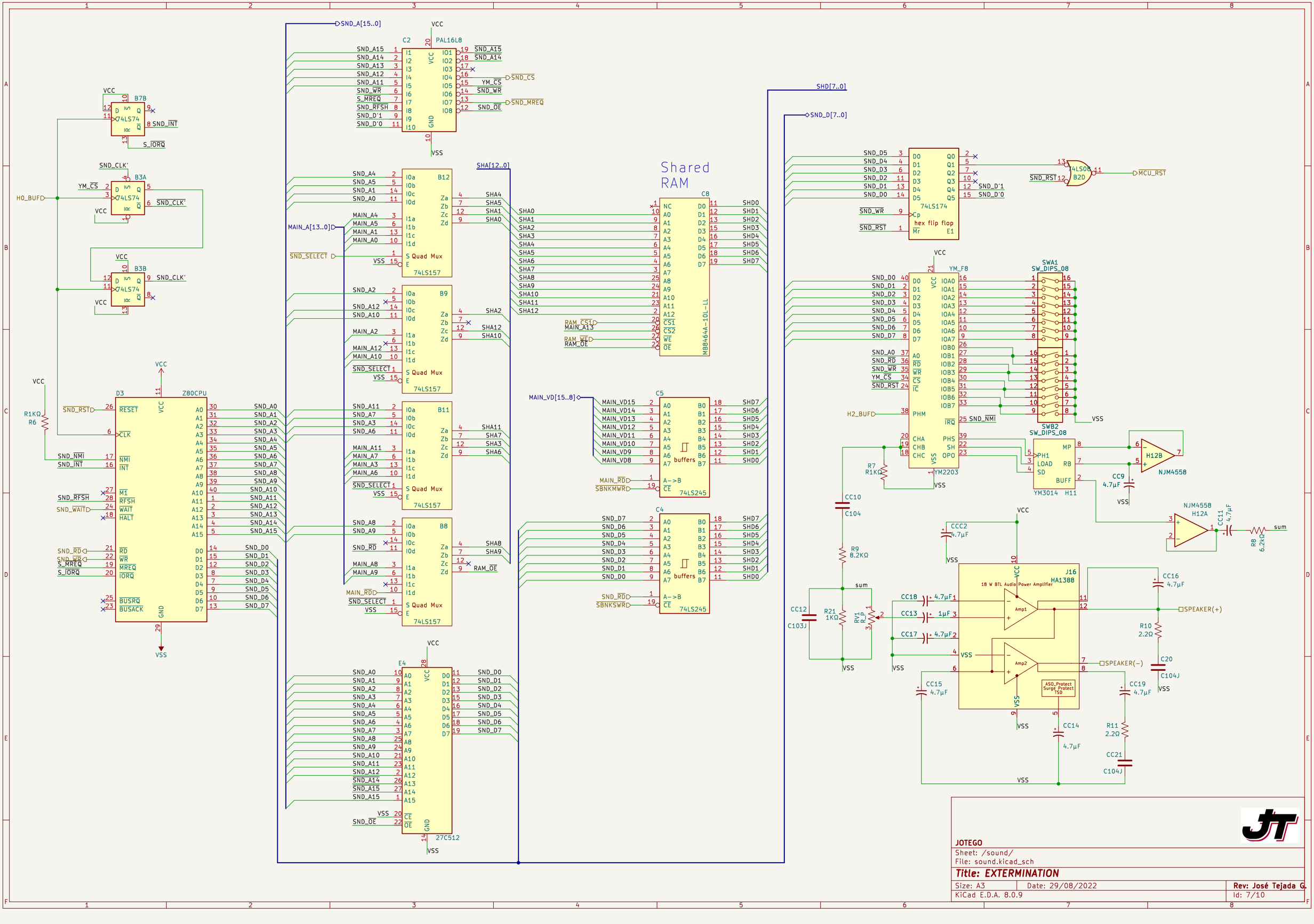
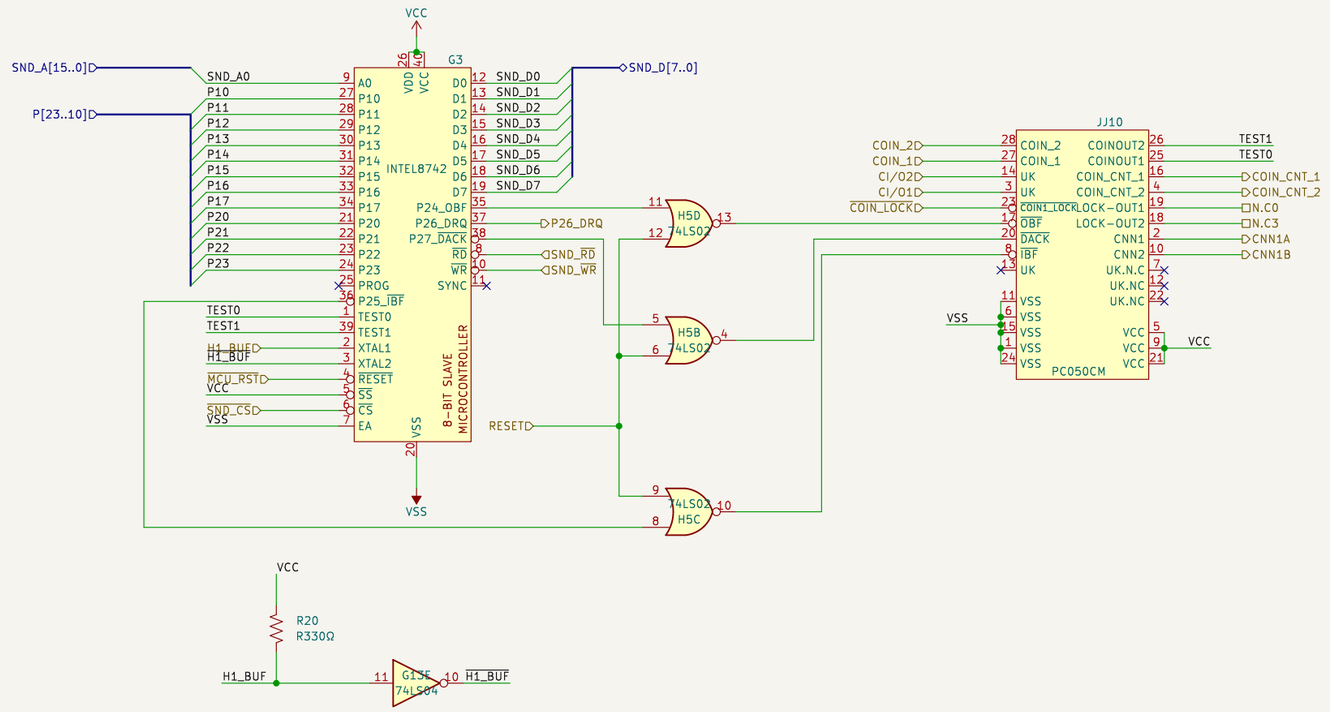
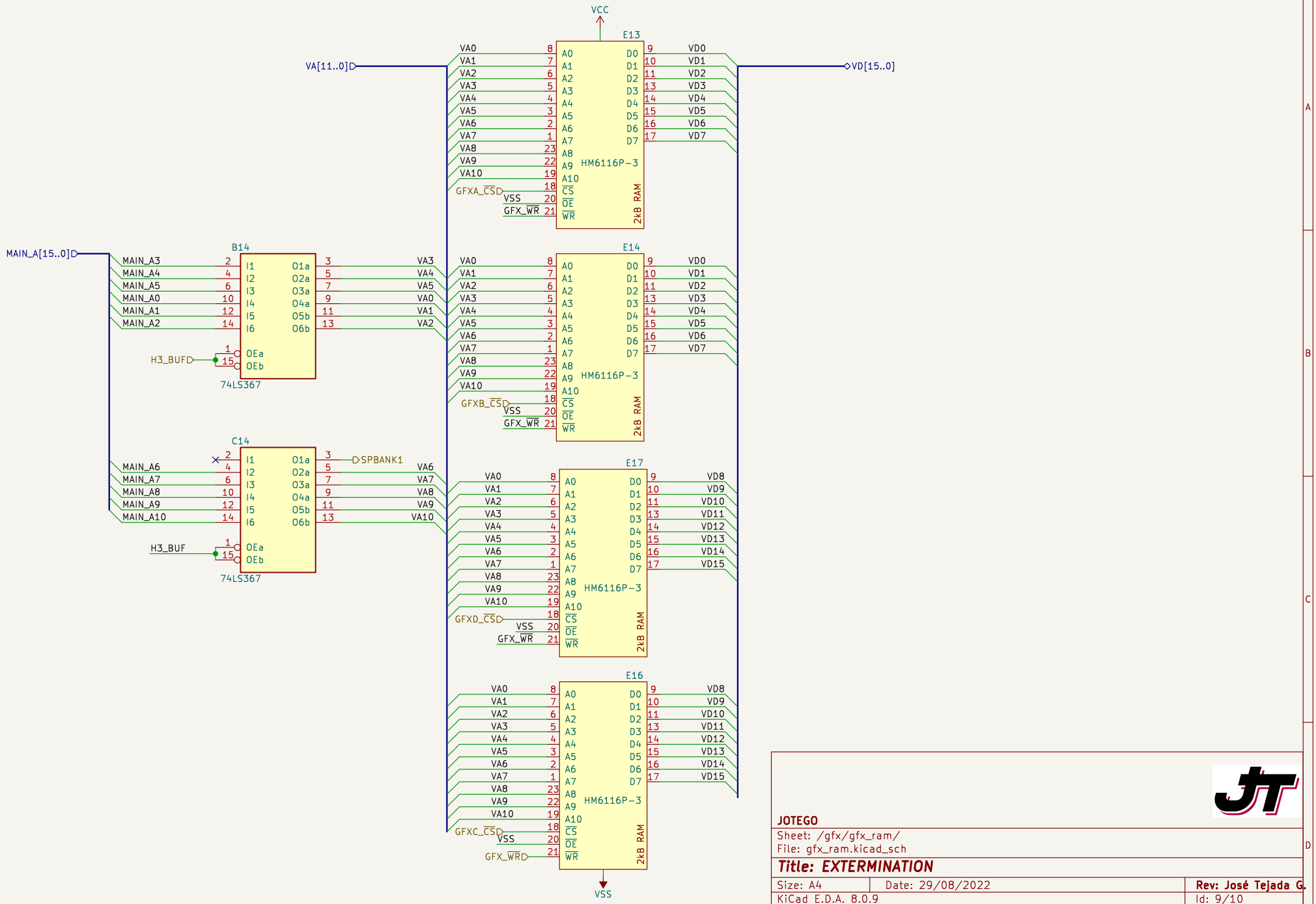
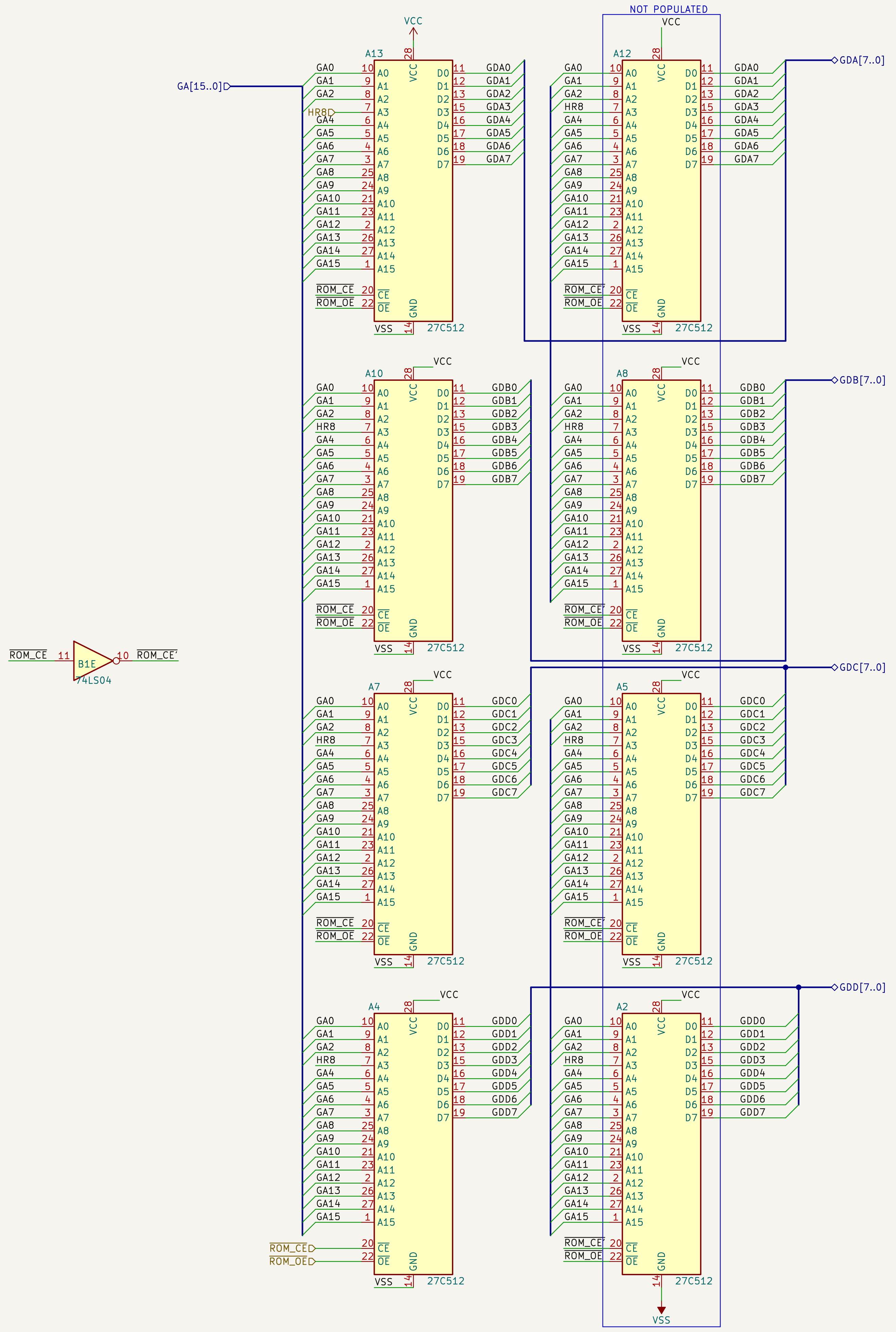
File: watchdog.kicad_sch		
Title: EXTERMINATION		
Size: A3	Date: 29/08/2022	Rev: José Tejada G.
KiCad E.D.A. 8.0.9		Id: 6/10


SND_A[15..0]
SHA[12..0]
SHD[7..0]
SND_D[7..0]
MAIN_A[13..0]
MAIN_VD[15..8]
Shared RAM
C2 PAL16L8
SND_A15
SND_A14
SND_A13
SND_A12
SND_A11
SND_WR
S_MREQ
SND_RFSH
SND_D'1
SND_D'0
SND_CS
YM_CS
SND_WR
SND_MREQ
SND_OE
VCC
VSS
B7B
74LS74
SND_INT
S_IORQ
SND_CLK'
B3A
H0_BUF
B3B
D3 Z80CPU
RESET
CLK
NMI
INT
M1
RFSH
WAIT
HALT
BUSRQ
BUSACK
MREQ
IORQ
RD
WR
GND
R1KΩ
R6
SND_RST
SND_NMI
SND_RFSH
SND_WAIT
S_MREQ
S_IORQ
SND_RD
SND_WR
SND_A0
SND_A1
SND_A2
SND_A3
SND_A4
SND_A5
SND_A6
SND_A7
SND_A8
SND_A9
SND_A10
SND_A11
SND_A12
SND_A13
SND_A14
SND_A15
SND_D0
SND_D1
SND_D2
SND_D3
SND_D4
SND_D5
SND_D6
SND_D7
B12
B9
B11
B8
74LS157
S Quad Mux
MAIN_A4
MAIN_A5
MAIN_A1
MAIN_A0
MAIN_A2
MAIN_A12
MAIN_A10
MAIN_A3
MAIN_A6
MAIN_A11
MAIN_A7
MAIN_A8
MAIN_A9
SND_SELECT
MAIN_RD
SHA0
SHA1
SHA2
SHA3
SHA4
SHA5
SHA6
SHA7
SHA8
SHA9
SHA10
SHA11
SHA12
RAM_OE
C8 MB8464A-10L-LL
RAM_CS1
MAIN_A13
RAM_WE
RAM_OE
SHD0
SHD1
SHD2
SHD3
SHD4
SHD5
SHD6
SHD7
C5 buffers
C4 buffers
MAIN_VD15
MAIN_VD14
MAIN_VD13
MAIN_VD12
MAIN_VD11
MAIN_VD10
MAIN_VD9
MAIN_VD8
A->B
SBNKMWR
SBNKSWR
E4 27C512
74LS174
hex flip flop
MCU_RST
YM_F8
SWA1
SW_DIPS_08
SWB2
H2_BUF
PHM
IRQ
CHA
CHB
CHC
PHS
SH
OPO
YM2203
R7
R1KΩ
PH1
LOAD
SD
MP
RB
BUFF
YM3014 H11
H12B
NJM4558
CC9
4.7µF
NJM4558
H12A
CC11
4.7µF
R8
6.2KΩ
sum
CC10
C104
R9
8.2KΩ
CCC2
4.7µF
J16
HA1388
18 W BTL Audio Power Amplifier
Amp1
Amp2
ASO_Protect
Surge Protect
TSD
CC18
4.7µF
CC13
1µF
CC17
4.7µF
CC16
4.7µF
SPEAKER(+)
SPEAKER(−)
R10
2.2Ω
C20
C104J
CC15
4.7µF
CC19
4.7µF
CC14
4.7µF
R11
2.2Ω
CC21
C104J
CC12
C103J
R21
1KΩ
RV1
R
JOTEGO
Sheet: /sound/
File: sound.kicad_sch
Title: EXTERMINATION
Size: A3
Date: 29/08/2022
Rev: José Tejada G.
KiCad E.D.A. 8.0.9
Id: 7/10



JOTEGO		
Sheet: /mcu/		
File: mcu.kicad_sch		
Title: EXTERMINATION		
Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 8/10


VCC
VA[11..0]
VD[15..0]
E13
E14
E17
E16
HM6116P-3
2kB RAM
B14
C14
74LS367
MAIN_A[15..0]
MAIN_A3
MAIN_A4
MAIN_A5
MAIN_A0
MAIN_A1
MAIN_A2
MAIN_A6
MAIN_A7
MAIN_A8
MAIN_A9
MAIN_A10
H3_BUF
SPBANK1
GFXA_CS
GFXB_CS
GFXD_CS
GFXC_CS
GFX_WR
GFX_WRD
VSS
JOTEGO
Sheet: /gfx/gfx_ram/
File: gfx_ram.kicad_sch
Title: EXTERMINATION
Size: A4
Date: 29/08/2022
KiCad E.D.A. 8.0.9
Rev: José Tejada G.
Id: 9/10



JOTEGO

Sheet: /gfx/gfx_rom/

File: gfx_rom.kicad_sch

Title: EXTERMINATION

Size: A3 | Date: 29/08/2022 | **Rev: José Tejada G.**

KiCad E.D.A. 8.0.9 | Id: 10/10