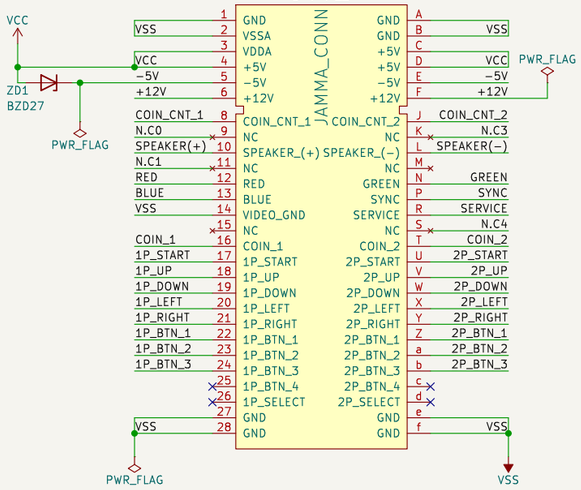
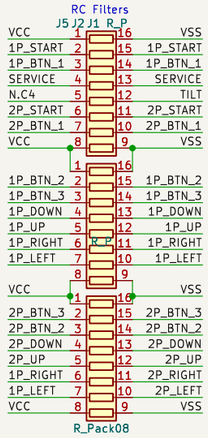
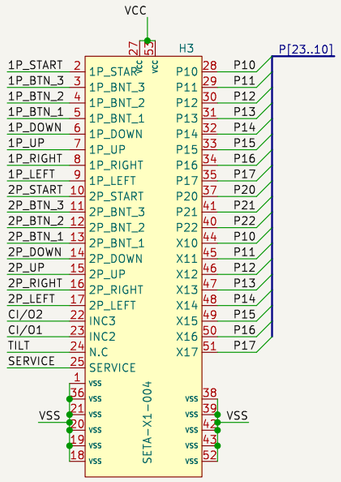
JM1

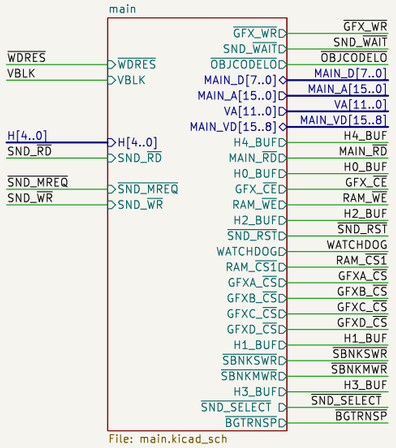


CABINET I/O

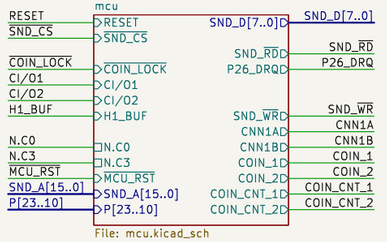




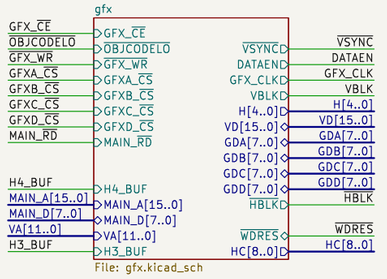
main



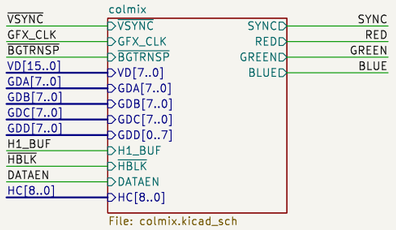
mcu



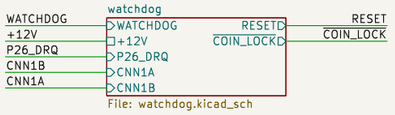
gfx



colmix

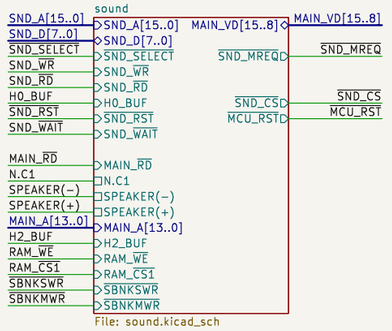


watchdog



capacitors

sound

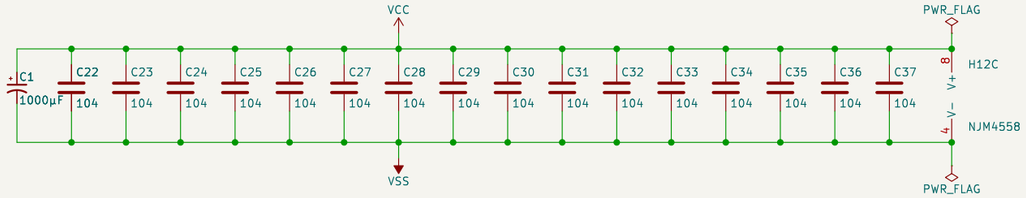


JOTEGO

Sheet: /
File: exterm.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	Rev: José Tejada G.
KiCad E.D.A. 8.0.9		Id: 1/10



H5E
74LS02

B7C
74LS74

B4C
74LS74

B3C
74LS74

B2E
74LS08

G13G
74LS04

C6E
74LS32

B6E
74LS08

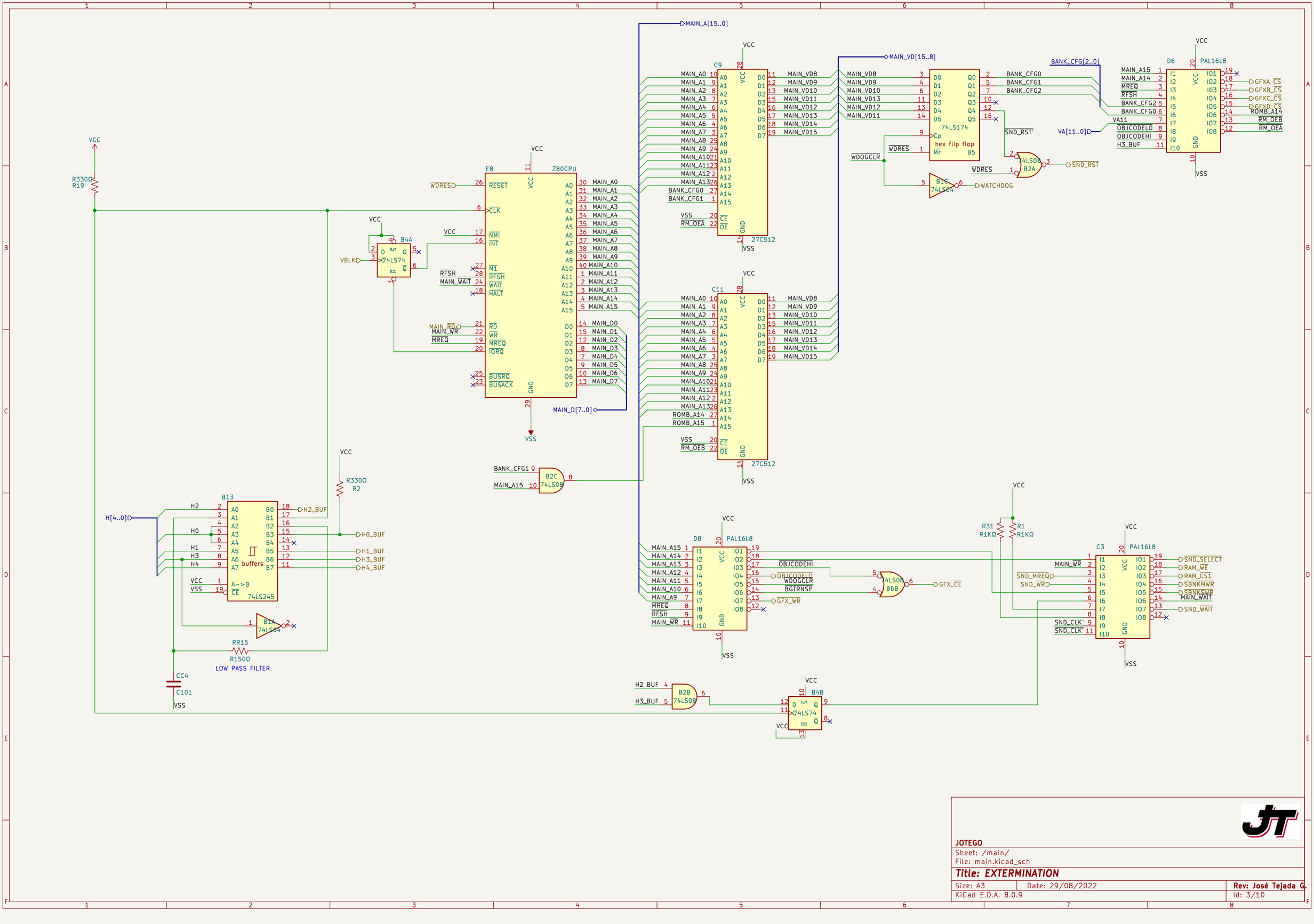
B1G
74LS04

JOTEGO

Sheet: /capacitors/
File: capacitors.kicad_sch

Title: EXTERMINATION

Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 2/10



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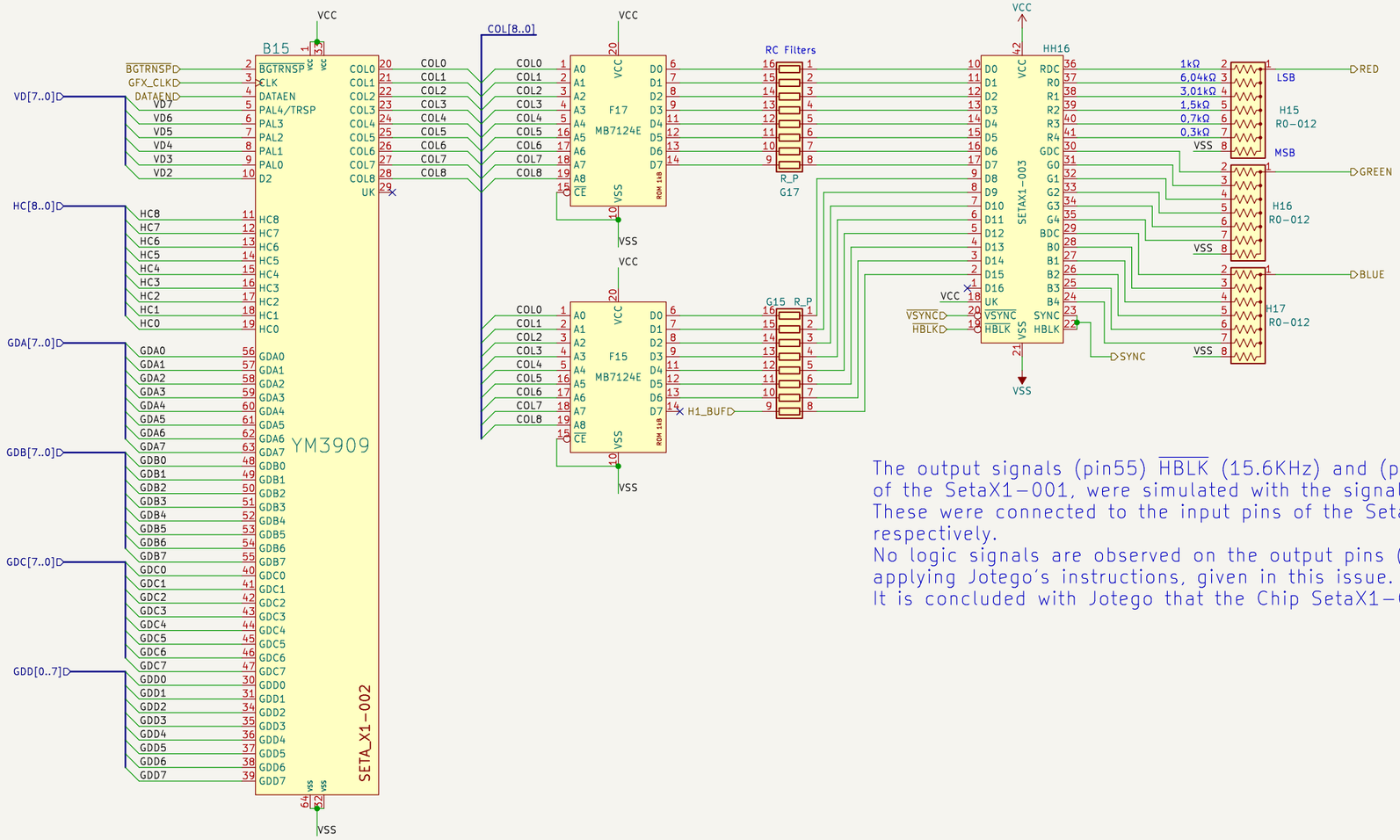
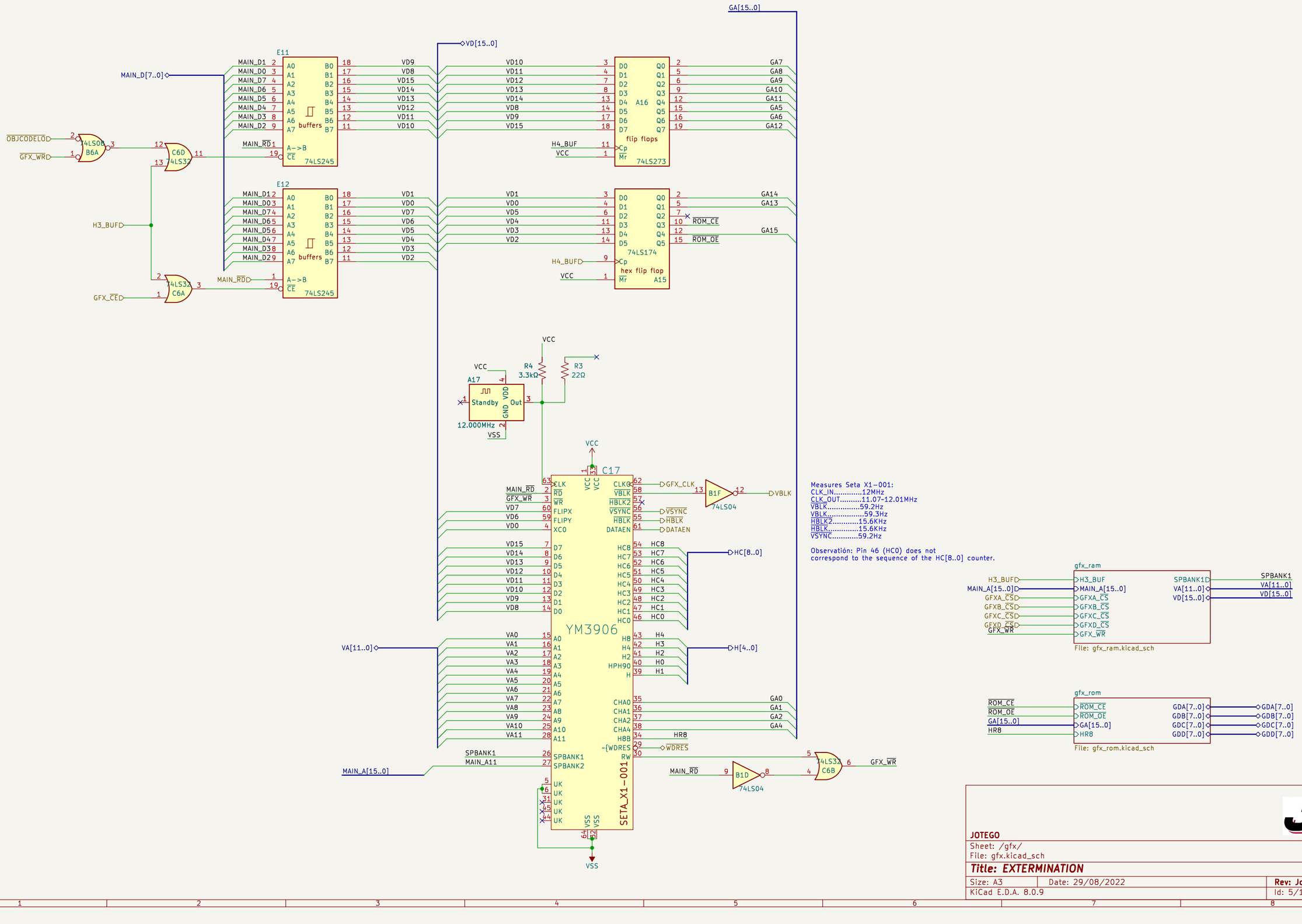
Title: EXTERMINATION	
Size: A3	Date: 29/08/2022
KiCad E.D.A. 8.0.9	Id: 3/10
	Rev: José Tejada G.

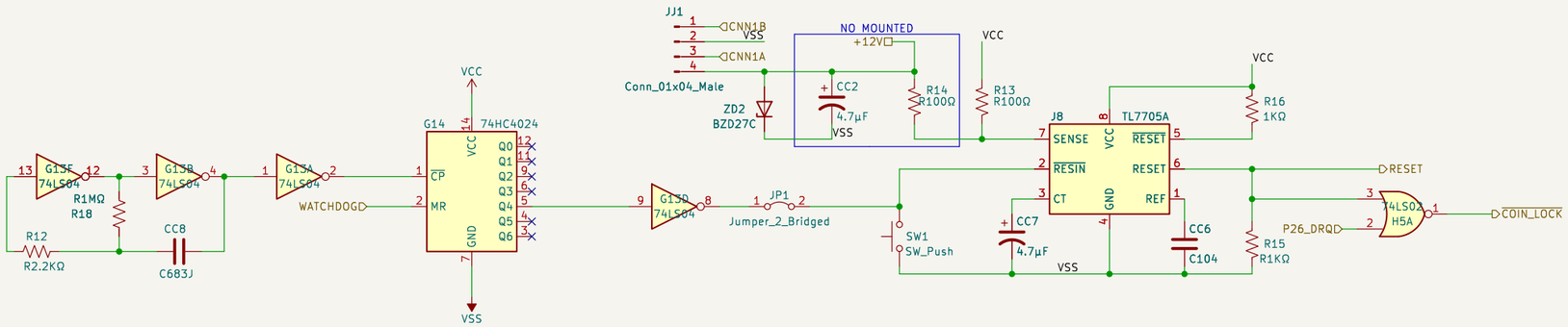


The output signals (pin55) $\overline{\text{HBLK}}$ (15.6KHz) and (pin56) $\overline{\text{VSYNC}}$ (59.2 Hz) of the SetaX1−001, were simulated with the signal generator and an inverter. These were connected to the input pins of the SetaX01−003 (pin 19 − 20), respectively.
No logic signals are observed 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

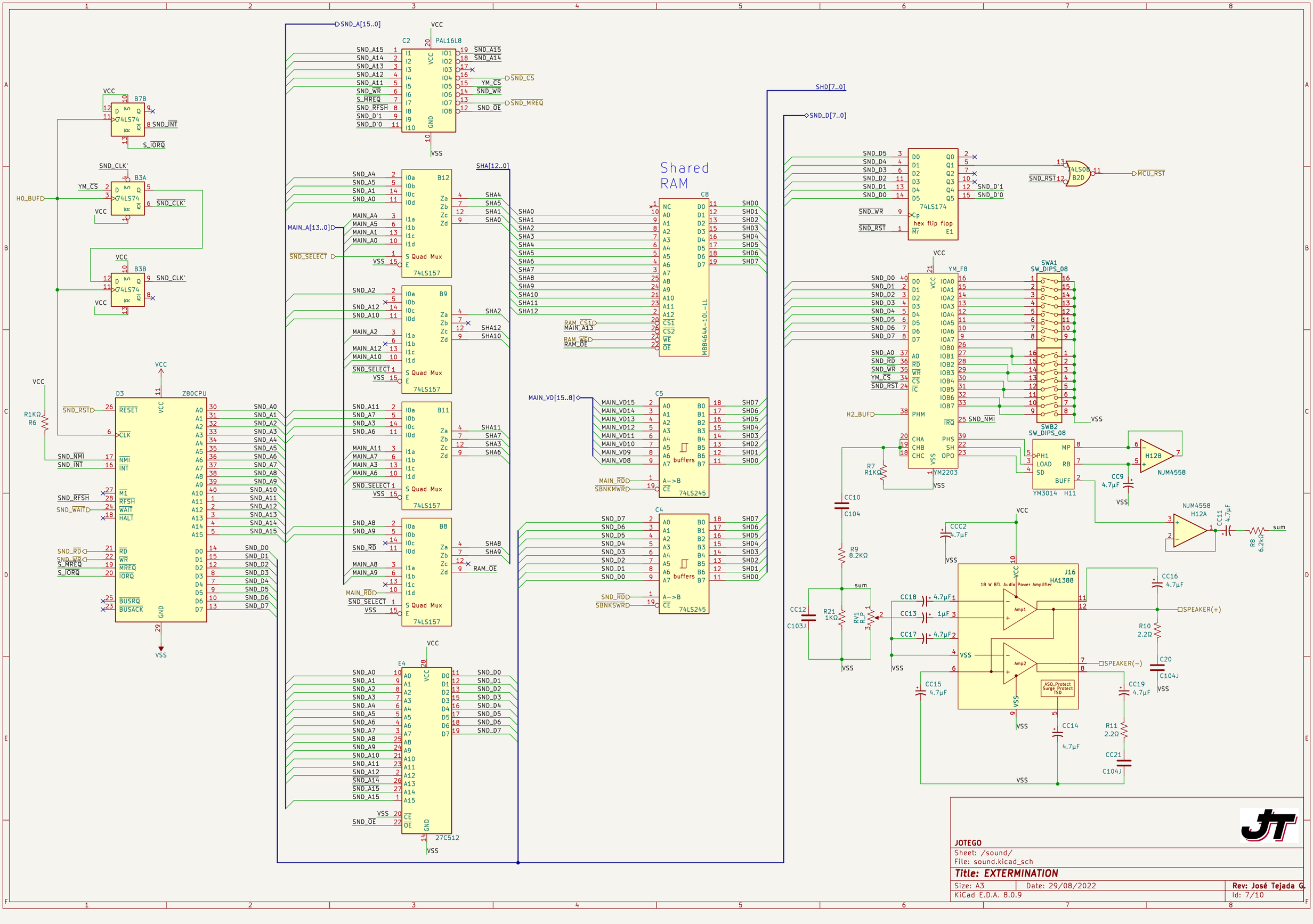
Sheet: /colmix/		
File: colmix.kicad_sch		
Title: EXTERMINATION		
Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 4/10

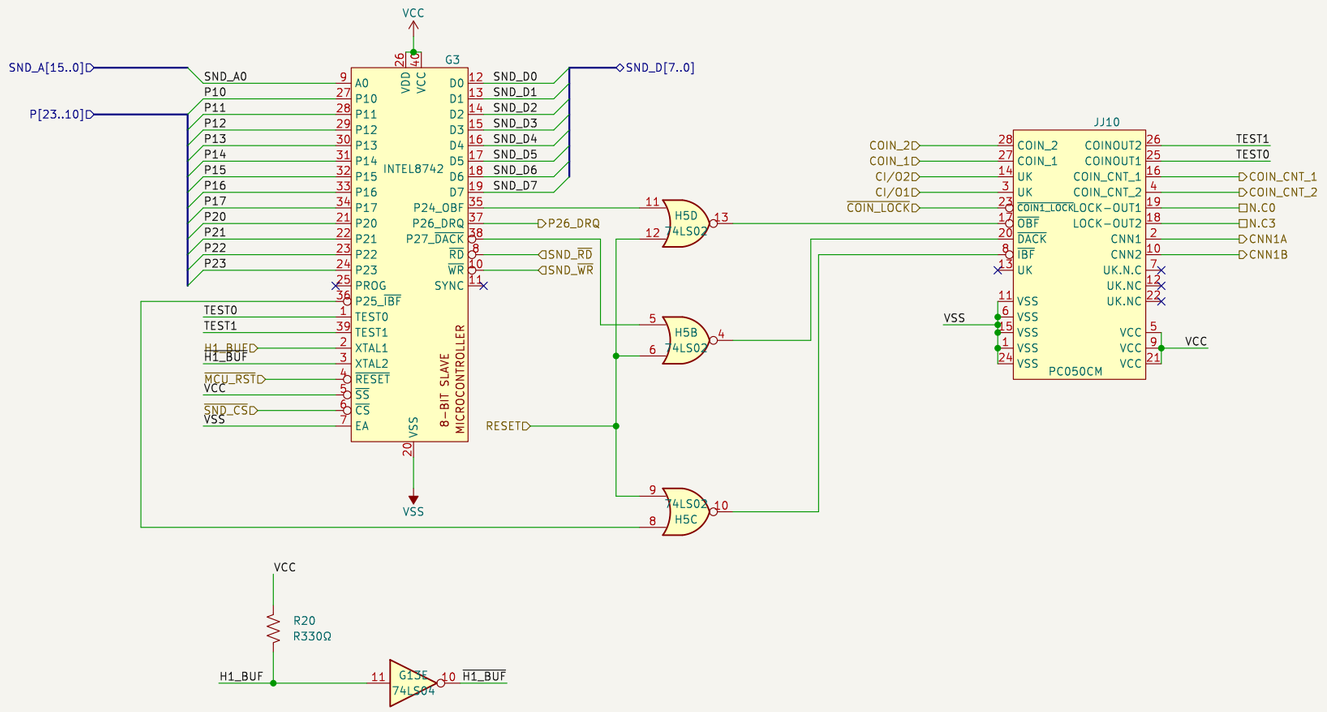

GA[15..0]
VD[15..0]
E11
E12
MAIN_D[7..0]
OBJCODELO
GFX_WR
H3_BUF
GFX_CE
74LS08 B6A
C6D 74LS32
C6A 74LS32
buffers
A->B
74LS245
74LS273
flip flops
A16
74LS174
hex flip flop
A15
H4_BUF
VCC
ROM_CE
ROM_OE
GA14
GA13
GA15
R4 3.3kΩ
R3 22Ω
A17
Standby
VDD
GND
Out
12.000MHz
VSS
C17
YM3906
SETA_X1-001
GFX_CLK
VBLK
VSYNC
HBLK
DATAEN
HC[8..0]
H[4..0]
VA[11..0]
MAIN_A[15..0]
SPBANK1
MAIN_A11
WDRES
HR8
GA0
GA1
GA2
GA4
B1F
B1D
74LS04
74LS32 C6B
GFX_WR
Measures Seta X1-001:
CLK_IN.....12MHz
CLK_OUT.....11.07-12.01MHz
VBLK.....59.2Hz
VBLK.....59.3Hz
HBLK2.....15.6KHz
HBLK.....15.6KHz
VSYNC.....59.2Hz
Observatión: Pin 46 (HC0) does not
correspond to the sequence of the HC[8..0] counter.
gfx_ram
File: gfx_ram.kicad_sch
gfx_rom
File: gfx_rom.kicad_sch
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



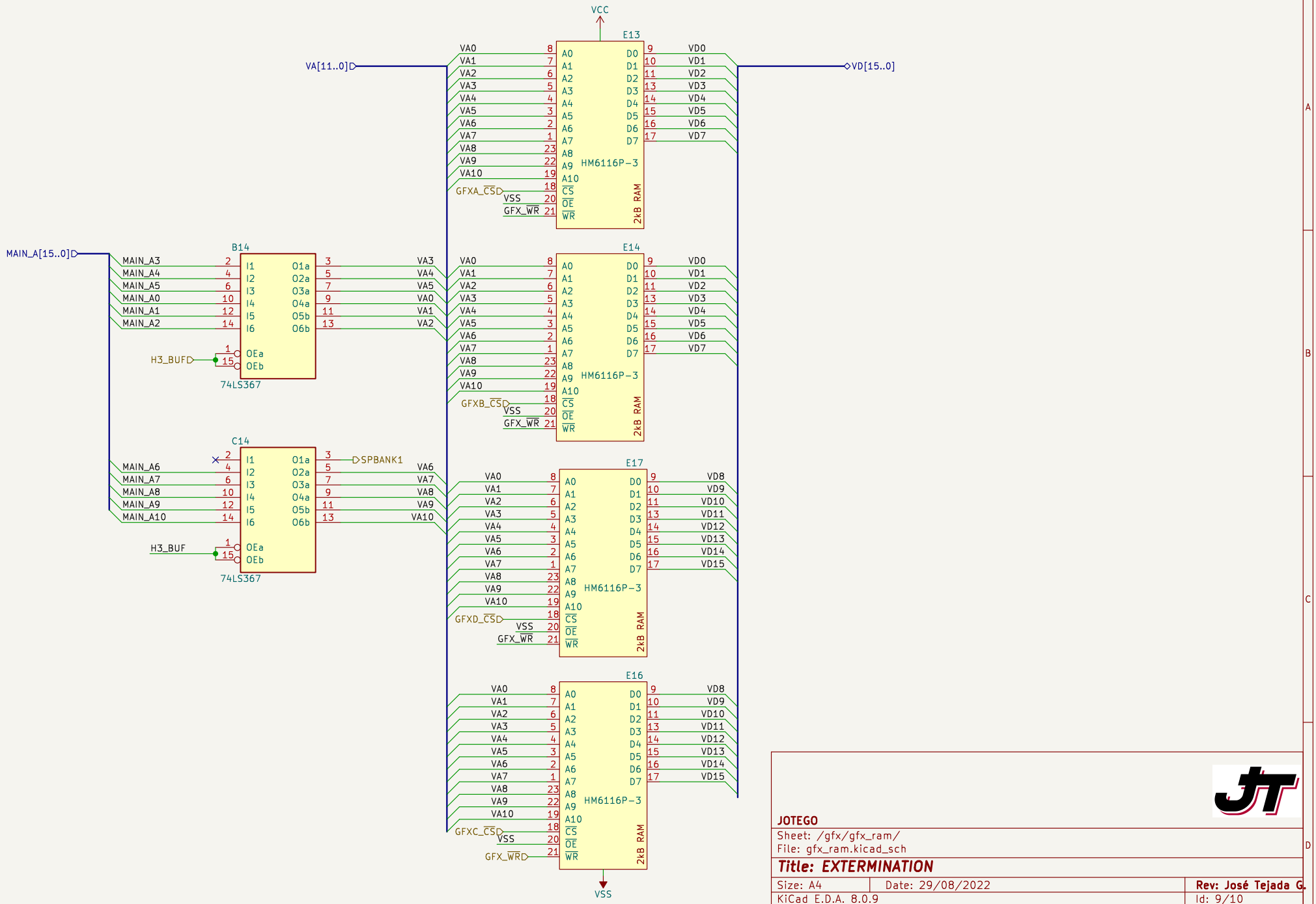
JOTEGO

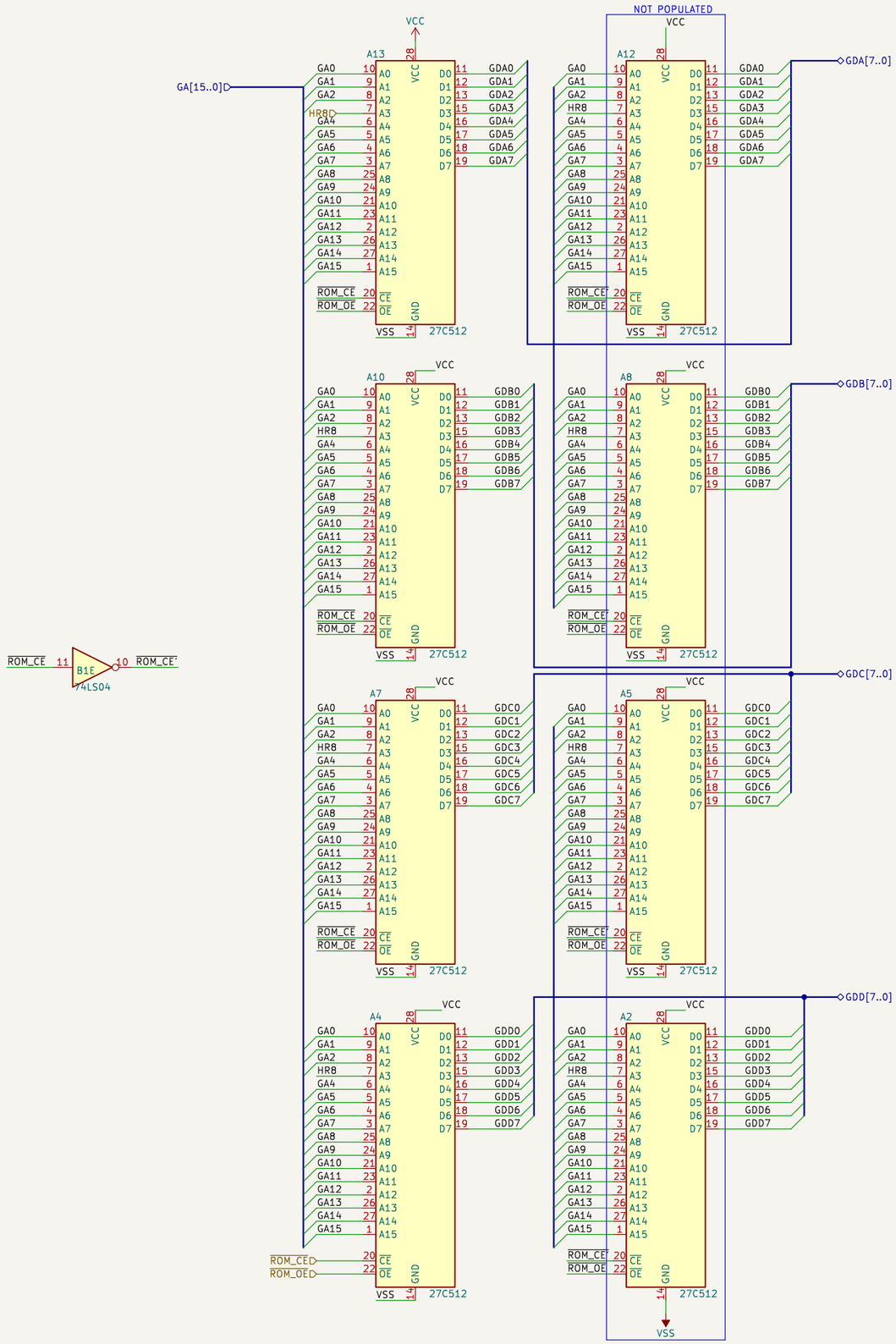
Sheet: /watchdog/		
File: watchdog.kicad_sch		
Title: EXTERMINATION		
Size: A3	Date: 29/08/2022	**Rev: José Tejada G.**
KiCad E.D.A. 8.0.9		Id: 6/10


Shared
RAM
Z80CPU
MB8464A-10L-LL
74LS157
74LS245
74LS174
PAL16L8
27C512
YM2203
YM3014
HA1388
NJM4558
SW_DIPS_08
SND_A[15..0]
SHA[12..0]
SHD[7..0]
SND_D[7..0]
MAIN_A[13..0]
MAIN_VD[15..8]
SND_SELECT
SND_CLK'
H0_BUF
H2_BUF
R1KΩ
R6
R7
R9
8.2KΩ
R10
2.2Ω
R11
2.2Ω
R21
1KΩ
RV1
RA
RB
RW
CC9
4.7µF
CC10
C104
CC11
4.7µF
CC12
C103J
CC13
1µF
CC14
4.7µF
CC15
4.7µF
CC16
4.7µF
CC17
4.7µF
CC18
4.7µF
CC19
4.7µF
CC21
C104J
C20
C104J
CCC2
4.7µF
R8
6.2KΩ
sum
SPEAKER(+)
SPEAKER(−)
MCU_RST
VCC
VSS
JOTEGO
Sheet: /sound/
File: sound.kicad_sch
Title: EXTERMINATION
Size: A3
Date: 29/08/2022
KiCad E.D.A. 8.0.9
Rev: José Tejada G.
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
GFXA_CS
GFXB_CS
GFXD_CS
GFXC_CS
GFX_WR
GFX_WRD
VSS
B14
C14
74LS367
H3_BUF
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
SPBANK1
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