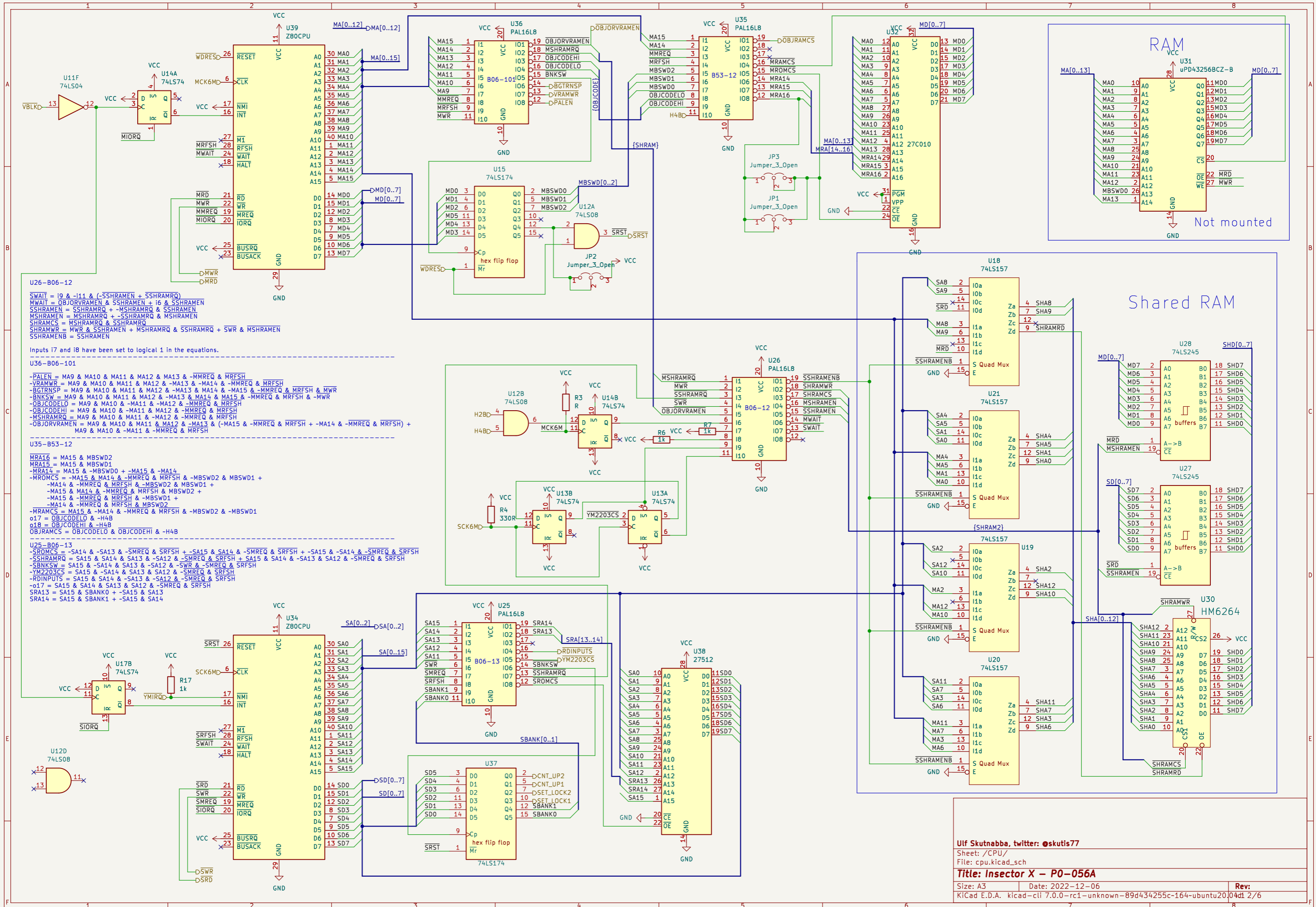


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**Title: Insector X – P0-056A**

Size: A3	Date: 2022-12-06	Rev:
KiCad E.D.A. kicad-cli 7.0.0-rc1-unknown-89d434255c-164-ubuntu20.04d1		1/6



U26-B06-12

SWAIT =  $\neg 19 \& \neg 11 \& (\neg \text{SSHRAMEN} + \text{SSHRAMRQ})$   
 MWAIT =  $\text{OBJORVRAMEN} \& \text{SSHRAMEN} + 16 \& \text{SSHRAMEN}$   
 SSSHRAMEN1 =  $\text{SSHRAMRQ} + \neg \text{MSHRAMRQ} \& \text{SSHRAMEN}$   
 MSHRAMEN =  $\text{MSHRAMRQ} + \neg \text{SSHRAMRQ} \& \text{MSHRAMEN}$   
 SHRAMCS =  $\text{MSHRAMRQ} \& \text{SSHRAMRQ}$   
 SHRAMWR =  $\text{MWR} \& \text{SSHRAMEN} + \text{MSHRAMRQ} \& \text{SSHRAMRQ} + \text{SWR} \& \text{MSHRAMEN}$   
 SSSHRAMENB =  $\text{SSHRAMEN}$

Inputs 17 and 18 have been set to logical 1 in the equations.

U36-B06-101

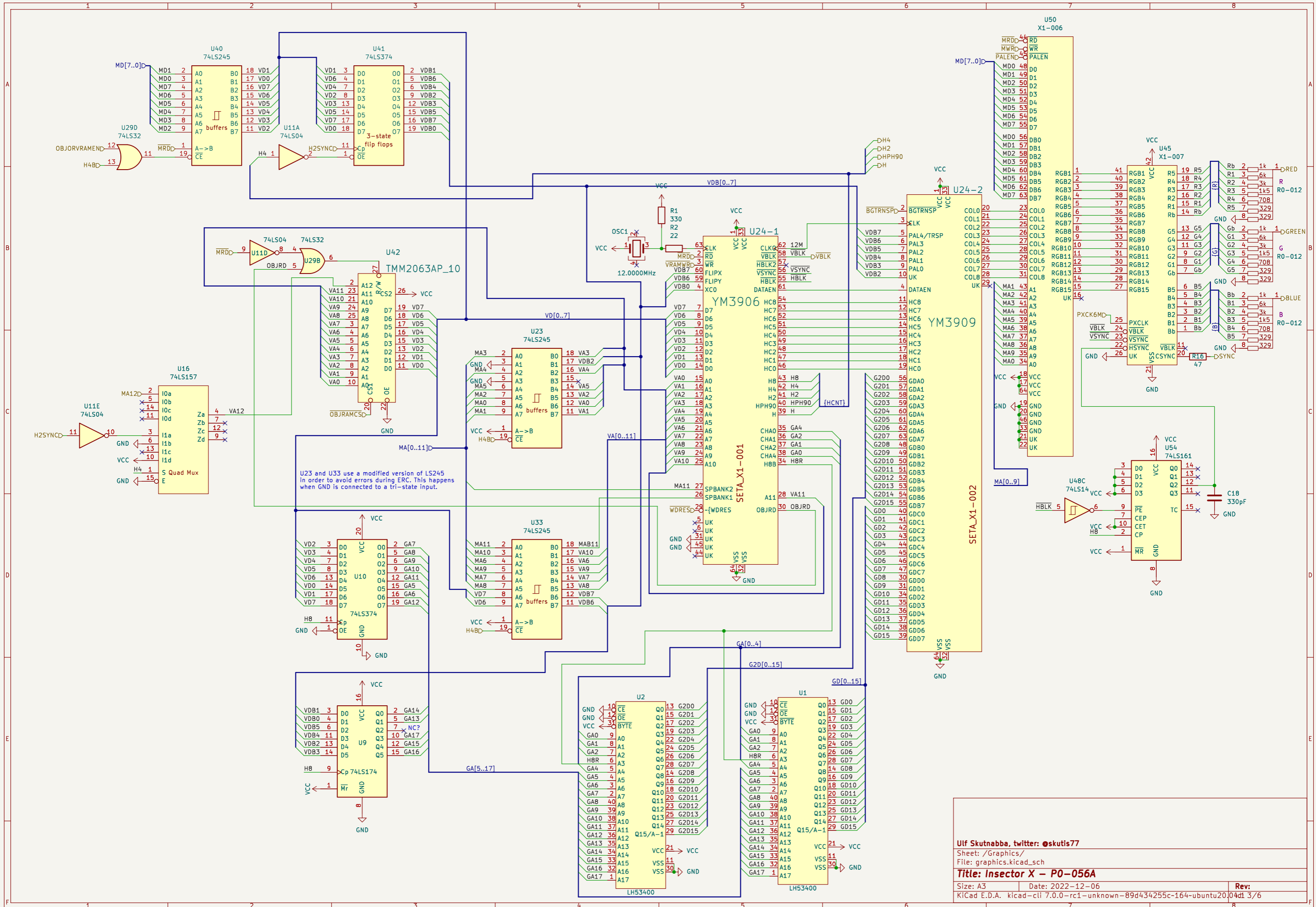
$\neg \text{PALEN} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \text{MA13} \& \neg \text{MMREQ} \& \text{MRFESH}$   
 $\neg \text{VRAMWR} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MA13} \& \neg \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH}$   
 $\neg \text{BGTRNSP} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MA13} \& \text{MA14} \& \neg \text{MA15} \& \neg \text{MMREQ} \& \text{MRFESH} \& \text{MWR}$   
 $\neg \text{BNKSW} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MA13} \& \text{MA14} \& \text{MA15} \& \neg \text{MMREQ} \& \text{MRFESH} \& \neg \text{MWR}$   
 $\neg \text{OBJCODELO} = \text{MA9} \& \text{MA10} \& \neg \text{MA11} \& \neg \text{MA12} \& \neg \text{MMREQ} \& \text{MRFESH}$   
 $\neg \text{OBJCODEHI} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MMREQ} \& \text{MRFESH}$   
 $\neg \text{MSHRAMRQ} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MMREQ} \& \text{MRFESH}$   
 $\neg \text{OBJORVRAMEN} = \text{MA9} \& \text{MA10} \& \text{MA11} \& \text{MA12} \& \neg \text{MA13} \& (\neg \text{MA15} \& \neg \text{MMREQ} \& \text{MRFESH} + \neg \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH}) + \text{MA9} \& \text{MA10} \& \neg \text{MA11} \& \neg \text{MMREQ} \& \text{MRFESH}$

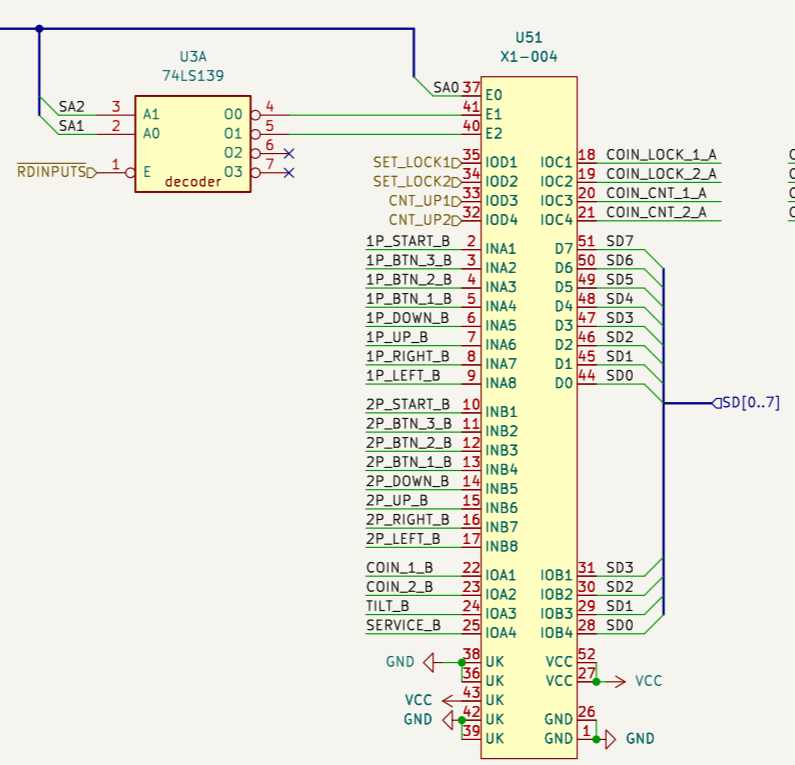
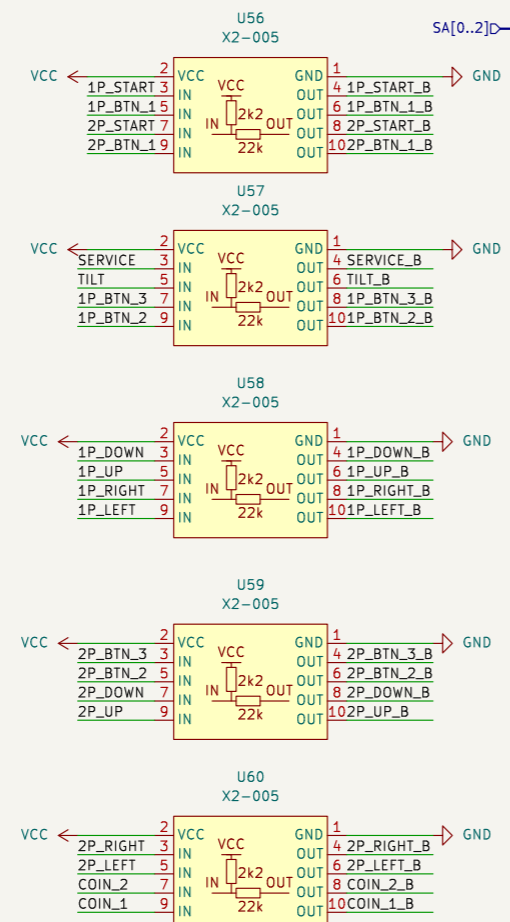
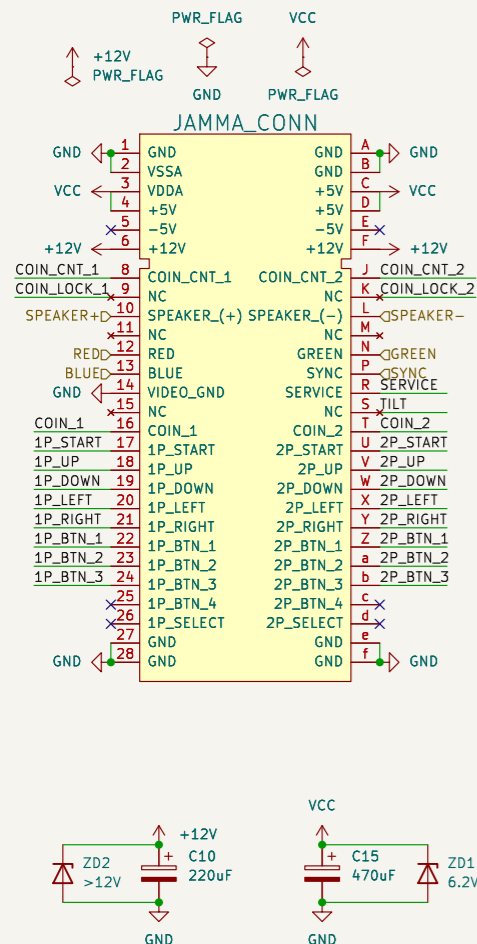
U35-B53-12

$\text{MRA16} = \text{MA15} \& \text{MBSWD2}$   
 $\text{MRA15} = \text{MA15} \& \text{MBSWD1}$   
 $\neg \text{MRA14} = \text{MA15} \& \neg \text{MBSWD0} + \neg \text{MA15} \& \neg \text{MA14}$   
 $\neg \text{MROMCS} = \text{MA15} \& \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH} \& \neg \text{MBSWD2} \& \text{MBSWD1} + \neg \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH} \& \neg \text{MBSWD2} \& \text{MBSWD1} + \neg \text{MA15} \& \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH} \& \text{MBSWD2} + \neg \text{MA15} \& \neg \text{MMREQ} \& \text{MRFESH} \& \neg \text{MBSWD1} + \neg \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH} \& \text{MBSWD2}$   
 $\neg \text{MRAMCS} = \text{MA15} \& \neg \text{MA14} \& \neg \text{MMREQ} \& \text{MRFESH} \& \neg \text{MBSWD2} \& \neg \text{MBSWD1}$   
 o17 =  $\text{OBJCODELO} \& \neg \text{H4B}$   
 o18 =  $\text{OBJCODEHI} \& \neg \text{H4B}$   
 $\text{OBJRAMCS} = \text{OBJCODELO} \& \text{OBJCODEHI} \& \neg \text{H4B}$

U25-B06-13

$\neg \text{SRMCS} = \neg \text{SA14} \& \neg \text{SA13} \& \neg \text{SMREQ} \& \text{SRFESH} + \neg \text{SA15} \& \text{SA14} \& \neg \text{SMREQ} \& \text{SRFESH} + \neg \text{SA15} \& \neg \text{SA14} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 $\neg \text{SSHRAMRQ} = \text{SA15} \& \text{SA14} \& \text{SA13} \& \neg \text{SA12} \& \neg \text{SMREQ} \& \text{SRFESH} + \text{SA15} \& \text{SA14} \& \neg \text{SA13} \& \text{SA12} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 $\neg \text{SBNKSW} = \text{SA15} \& \neg \text{SA14} \& \text{SA13} \& \neg \text{SA12} \& \neg \text{SWR} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 $\neg \text{YM2203CS} = \text{SA15} \& \neg \text{SA14} \& \text{SA13} \& \text{SA12} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 $\neg \text{RDINPUS} = \text{SA15} \& \text{SA14} \& \neg \text{SA13} \& \neg \text{SA12} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 o17 =  $\text{SA15} \& \text{SA14} \& \text{SA13} \& \text{SA12} \& \neg \text{SMREQ} \& \text{SRFESH}$   
 SRA13 =  $\text{SA15} \& \text{SBANK0} + \neg \text{SA15} \& \text{SA13}$   
 SRA14 =  $\text{SA15} \& \text{SBANK1} + \neg \text{SA15} \& \text{SA14}$



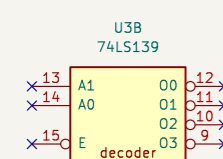
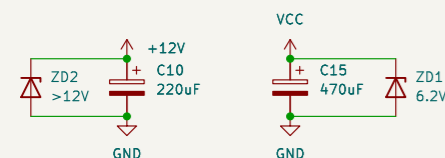


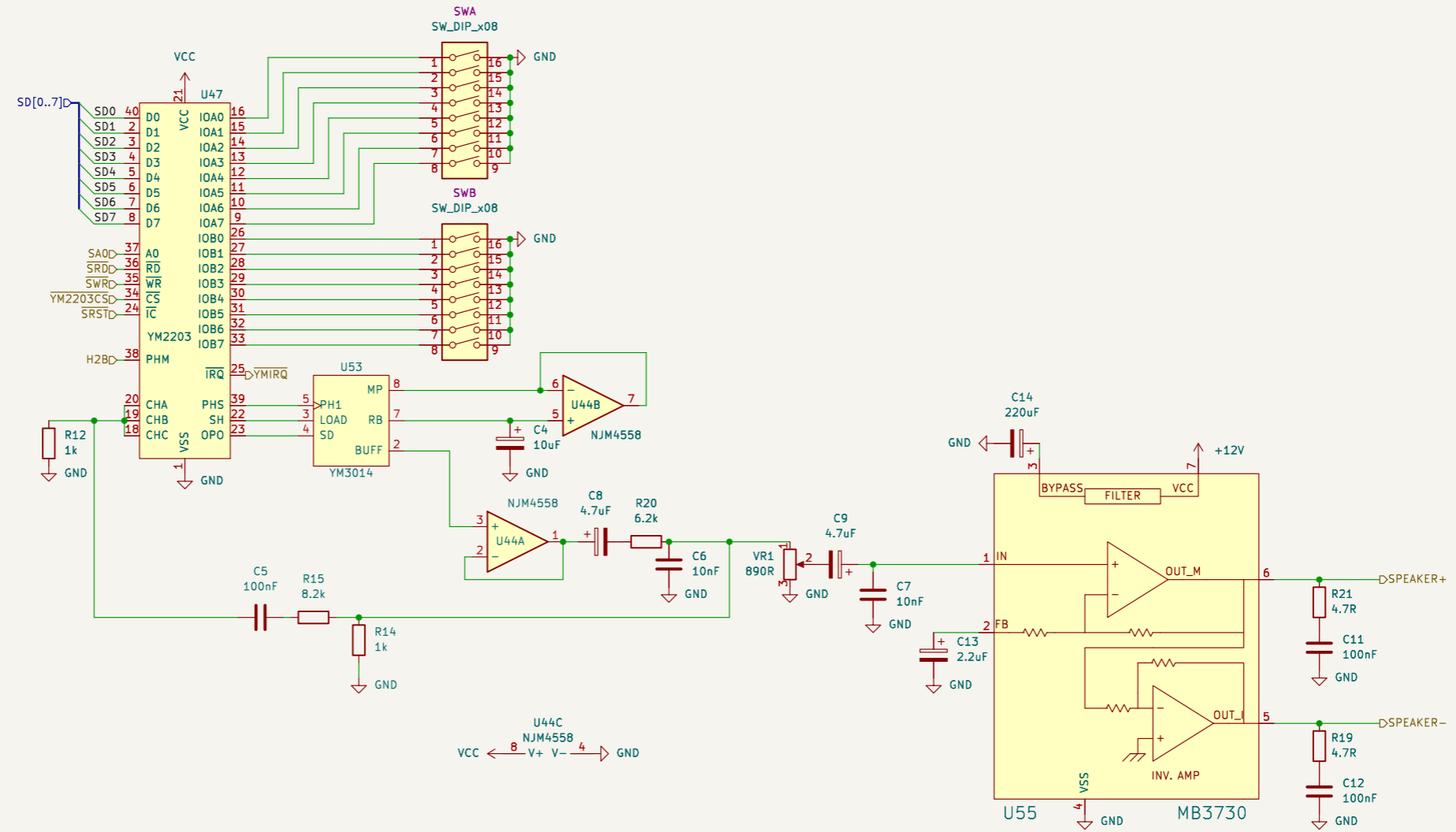
The I/O direction of each port in X1-004 is probably determined by connecting the pins 36,38,39, 42 and 43 to VCC and GND accordingly.

In insectx IOD -> IOC, IOA -> IOB

E2 E1 E0 Active output  
H L L INA-> D, IOD -> IOC  
H L H INB-> D, IOD -> IOC  
L H L IOA -> IOB  
X X X IOD -> IOC

All inputs are active low, when the outputs are not active they are in tri-state state. Except for IOC in this case.





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Sheet: /Sound/  
File: sound.kicad\_sch

Title: Insector X - P0-056A

Size: A3 Date: 2022-12-06

Rev:

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