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Subject: MSX single step

Posted by [jordi.solis](#) on Thu, 04 Apr 2024 15:52:48 GMT

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Hi Guys!

I would like to get your advise.

I'm working to get an MSX cartridge working with the attached schematic, based on the famous Steven Ciarcia's step by step circuit.

It doesn't work and I cannot get to see what's the problem.

Thank you for your support.

Jordi Solís.

MSXmakers!

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### File Attachments

1) [Captura desde 2024-04-03 21-03-45.png](#), downloaded 67 times

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Subject: Re: MSX single step

Posted by [lynchaj](#) on Thu, 04 Apr 2024 16:45:54 GMT

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Hi

Does Z80 pin 24 (/WAIT) have a pull up on it? The BAT43 diode is converting U3C into a pseudo open collector output.

Also, are your pull up resistors in RN1 actually tied to VCC? you need to use a bussed SIP resistor network with pin 1 tied to VCC

Good luck! Thanks, Andrew Lynch

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Subject: Re: MSX single step

Posted by [jordi.solis](#) on Fri, 05 Apr 2024 17:52:54 GMT

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Hi Andrew,

Thanks for your quick reply!

Yes, all resistors are connected to VCC as shows RN1A.

And yes, as far as I know /WAIT is open collector on the MSX standard and my Omega has a pull up.

I think my problem could come from how the timing is introduced by the 555 and convined by M1 because I have not too munch knoweledge about.

I have added that design to my github at:

<https://github.com/msx-solis/iBolit/tree/master/iBolit-ngo-kicad>

I hope this helps to understand my project.  
Regards.

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Subject: Re: MSX single step  
Posted by [jordi.solis](#) on Sat, 06 Apr 2024 22:18:41 GMT  
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News,

I cannot understand how does it work but the /wait signal on the cartridge slot goes to a GAL input  
/WAIT = /SLTWAIT

+ /M1WAIT

+ /VDPWAIT

+ /KBDWAIT

KBDWAIT doesn't go anywhere

SLTWAIT comes from both slots (open collector).

VDPWAIT comes from the Video Display procesor

but even worst, M1WAIT comes from a dual flip flop based on the Z80 M1 signal status so... I dont understand how this intecacts with the rest of the circuit.

<https://github.com/msx-solis/iBolit/blob/master/readme.md>

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