



# Modern Video for Old Apples

Or, how do I use this !@#\$ machine on an LCD?

# Hardware I'll Cover



- Leadstar 10" LCD monitor
- Retrotink 2x Pro
- Apple IIc RGB-to-composite adapter
- Nishida Radio IIc VGA Adapter
- VidHD

# Changes in Video



- As of 2020, many new LCD monitors and TVs lack composite video
- In addition, many lack traditional VGA connectors, as well!
- Since it's been a few years since any new CRT monitors were sold, we will need to adapt our faithful Apples to work with modern monitors, to be able to keep using them!

# What are we to do?



- There are a number of solutions to adapt composite video to HDMI
  - You can get them very cheaply, but quality is often poor
  - Input lag, interference and color shifting are common
  - 80 column text often looks very poor

# Solution #1 - Get a New TV!



- A few years ago, folks found a new security monitor that worked reasonably well, the 8" Night Owl Portable LCD



# Solution #1 - continued



- There are a couple drawbacks to the Night Owl, however
  - It's no longer available!
  - There are only a couple inputs, and those are composite only
  - 8 inches is a bit small, even for an Apple IIc



# Solution #1 - specifications

- There's a new portable LCD monitor that solves many of the drawbacks to the Night Owl...the Leadstar 10" portable LCD



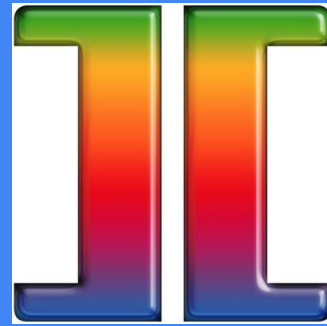
# Solution #1: Specs



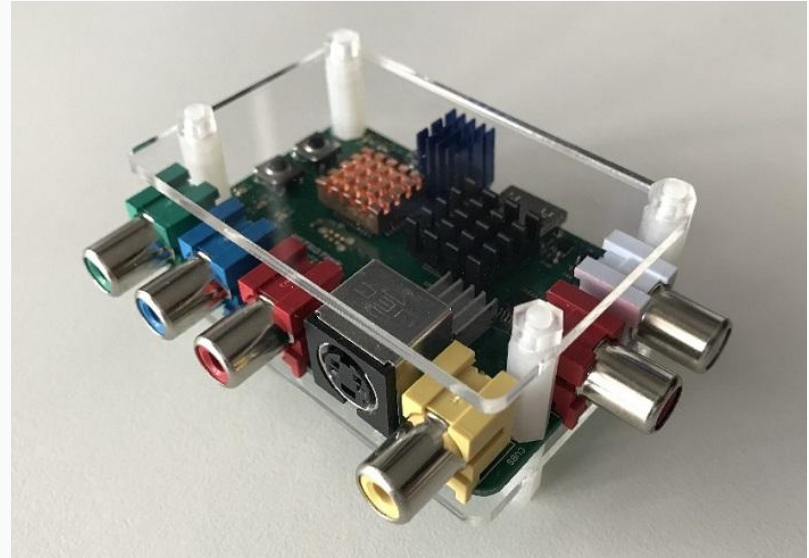
- The Leadstar LCD has a number of great features that make it a good choice for Apple II use
  - The composite input is very good quality, and reproduces 80 column text well
  - It is very similar in width to the Apple IIc/IIc Plus
  - There are other useful inputs, including VGA and HDMI ports
  - It has a 1024x600 resolution, which is good for the size
  - It's fairly inexpensive
    - <https://smile.amazon.com/gp/product/B07FD47QG5>
  - There is an internal battery, which makes it really handy for field IIc use, and it lasts a long time
- All of the (rather poor!) photographs are of this LCD monitor



# Solution #2: HDMI Video Converter



- Another solution to the problem is to use a composite-to-HDMI adapter
- An excellent adapter, that has become very popular with retro gamers, is the RetroTINK
  - <https://www.retrothink.com/>





What is the first name of the  
wagon leader?



## Solution #2: Details

- I have used both the RetroTINK 2x and the RetroTINK 2x Pro and love them both
- They have composite, s-video and component inputs, making them suitable for a variety of video output formats, from the original II to the IIgs
- The scaling quality is very good, and there is virtually zero lag
- Compared to other high-quality scalers, the price is quite low
  - <https://www.retrothink.com/product-page/retrotink-2x-pro>
- There is an upcoming version, with only s-video and composite, for less money
  - <https://www.retrothink.com/post/introducing-the-retrotink-2x-mini>



# Exodus

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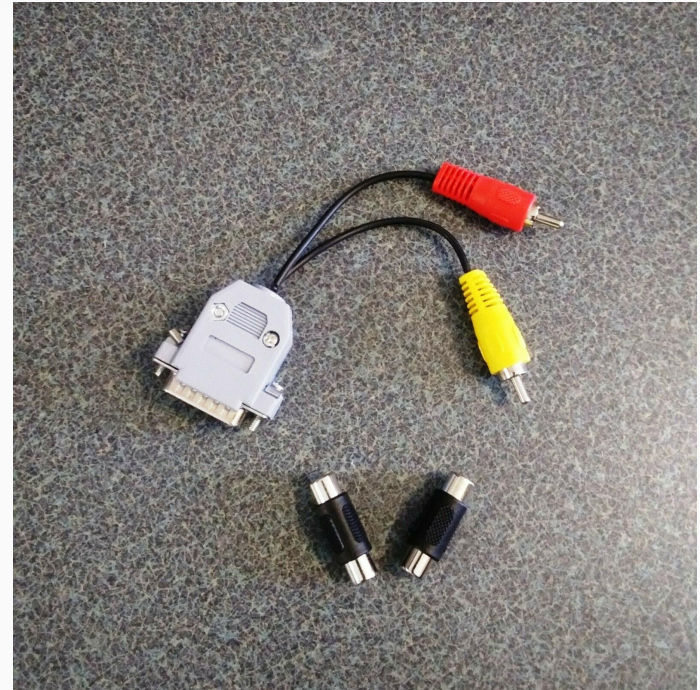


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# Solution #3: IIc RGB Adapter



- I recently discovered an Apple IIc/IIc+ adapter that produces high quality composite output, from the RGB port, for only about \$20
  - <https://www.ebay.com/itm/193393714278>
- The quality improvement is significant, and it provides audio out, to boot!





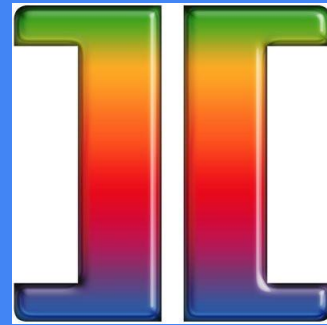
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# Solution #4: VidHD



- The last, and highest quality, solution that I'll cover is the VidHD, by Blue Shift
- VidHD is an add-in card for the Apple II/II+/IIe/IIGs, which uses an ARM single-board computer to produce fantastic quality HDMI output
- The price is very reasonable, at \$135 plus shipping
  - <https://www.callapple.org/vidhd/>





# Exodus



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Questions?



# Thank you!



- Thanks to everyone for your attention
- All the photographs (they're not fantastic, beware!) are available, freely
  - <https://share.icloud.com/photos/07ZLotuvGJZO2wYTEOyb4SRvA>