

LCD - Built-in Display

Path One: Keep the current LCD

Duties

If recycling the current LCD, will need to ensure proper power is available and do one of two things:

- Convert the video signal from HDMI to 4-bit monochrome LCD signal
- Write a driver that is similar in structure to SPI/I2C framebuffer to output compatible signal

Pros

- Less hardware to purchase
- Keep original aesthetic

Cons

- Difficult to get awkward and high voltages to run CFL backlight
- Have to reverse engineer old 4-bit signal standard (Documentation is minimal, but looks to be comparable to VGA)
- Writing a *god damn* video driver

Path Two: Use a new LCD

Duties

If using a new off-the-shelf LCD, will need to find something that will fit inside of the current case.

- Current screen: 4:3 ratio, 9.5" diagonal, 7.6" width , 5.7" height

- 16:9 screen: 11.6" diagonal, 10.1" width, 5.7" height
- 16:10 screen: 10.8" diagonal, 9.1" width, 5.7" height

Pros

- Much easier to just use HDMI/VGA and 12v power
- Brighter, easier to see
- Color!

Cons

- Damn near *impossible* to find modern LCDs that are the proper size
- Will need to make custom mounting hardware for the screen
- Price of a new LCD is *slightly* more than I'd like to spend

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