Monitors

INTRODUCTION

- A monitor is used to display visual information through signals from the computers graphics card/integrated graphics [1]
- Usually it connects with a laptop or desktop through cables
- The underlying display that modern day computer monitors carry is typically a liquid crystal display (LCD) [10]
- Replaced the bulkier cathode ray tube (CRT), a vacuum tube that emits electron beams which are manipulated to display images, as it consumed large amounts of power—which newly developed laptops could not be compatible with [8], [9]

Careers

Esports

- Professional gaming requires top of the line monitors
- Offers advantage in gaming as you can react faster in most situations [2]
- Can prevent eye strain with color settings
- Faster Response time(how quickly a monitor can change color) [3]
- Less input delay ("Input lag (or display lag) is the delay between your GPU sending a frame to your monitor") [3]
- Highest possible refresh rate ("Monitor refresh rate is the number of times per second a display updates the image, measured in Hertz") [4]
- High resolution (visual dimensions of a display) [5]
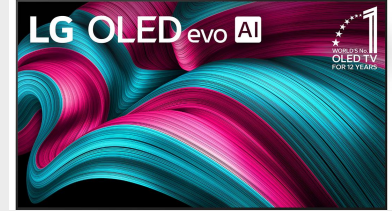- Curved (larger field of view in games)

Also...

Panel Types

Panel types are a display technology, a large part of monitors that you should consider if purchasing one. Each has trade offs and benefits.

LCD Panels:

Vertical Alignment: Mid ranged option, cheap, decent colors and contrast ratios(measurement between brightest white and darkest black) [6], [7]

Twisted Nematic: Low response time and high refresh rate, poor viewing angles(max angle you can look at a screen from) [6]

IPS: An upgrade from traits from Vertical Alignment, costly but great for visuals [6]

OLED Panels:

Stands for organic light-emitting diode. OLED is quite expensive but has amazing color accuracy because each pixel produces its own light. Consumes a lot of power as well. [6]

QD LED: Even more vibrant and has improved brightness. [6]

What career doesn't require a high quality monitor?

EXAMPLE: Computer programmer

- Programmers do not require a high refresh rate that a monitor can provide
- Programming is more so displaying static text instead of images or video and these aren't visually heavy
- Prioritize more screens or a big screen instead of high quality monitors

Here is a KAHOOT to test your knowledge!

https://kahoot.it/challenge/0430585?challenge-id=2175469c-91af-44bd-b82c-db71ccaf83ea_1770128710052

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[8] "Computer Monitor - an overview | ScienceDirect Topics," *www.sciencedirect.com*. Available: https://www.sciencedirect.com/topics/engineering/computer-monitor. [Accessed: Feb. 03, 2026]

[9] Wikipedia Contributors, "Liquid-crystal display," *Wikipedia*, Feb. 14, 2019. Available: https://en.wikipedia.org/wiki/Liquid-crystal_display. [Accessed: Feb. 03, 2026]

[10] "Computer Monitors | Encyclopedia.com," *Encyclopedia.com*, Aug. 13, 2018. Available: https://www.encyclopedia.com/science-and-technology/computers-and-electrical-engineering/computers-and-computing/computer-monitors. [Accessed: Feb. 03, 2026]