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Highlights from the 2022 Consumer Electronics Show

Gadgets and Glimpses into the Future

For those unfamiliar with CES (Consumer Electronics Show), it's arguably the most influential tech event in the world and the proving ground for many emerging technologies and global innovators. CES was born in 1967 and over the years the event has given oxygen to the VCR, the camcorder, Microsoft Xbox, OLED TV, tablets, android devices and, most recently, virtual reality.

This year's hybrid event saw over 2,300 companies from around the world showcase the latest in digital health, automotive innovation, gaming, NFT, smart home devices and food tech.

Prior to COVID , CES attendance would reach 180,000

AGENDA

Computer Chips

Gamers

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CES 2022: Chip Makers Intel, AMD, and NVIDIA Unveil Their Latest Wares

Intel extends 12th gen Alder Lake CPUs, intros a discrete GPU; AMD leads in CPU as well as GPUs before promising more in 2022. NVIDIA launches its most powerful GPU beside its most budget-friendly one.



Sumeet Wadhvani
Jr. Editor

Last Updated: January 11, 2022



At CES 2022, chip giants Intel, AMD, and NVIDIA have launched some of the most anticipated computing hardware to meet every user's needs be it a high-end user or a budget gamer. Here's a look at their



AMD & Intel in 2022

Seemingly impervious to the global chip shortage were standout announcements from AMD and Intel about their upcoming, more powerful, silicon for 2022.

AMD announced its Ryzen 6000 CPUs designed for laptops. Ryzen 6000 CPUs are the next step in the company's Zen 3 Plus architecture development and shrink the chips to 6nm. Accompanying the Ryzen 6000 this year are also AMD's RDNA 2 GPUs that are integrated on the chip.

For the performance driven, there will also come the Ryzen 9 6980HX and its eight-core, 16 threaded, 12 GPU at 2.4GHz performance architecture. The Ryzen 9 is shaping up to be about a 3% performance gain over last year's offering.



AMD used CES 2022 to mark the launch of the **Ryzen 6000 CPUs** for laptops with some big features: powerful integrated graphics via the RDNA 2 architecture, industry-first support for Microsoft's Pluton security processor and battery life of up to 24 hours for video playback.

The Ryzen 6000 mobile CPUs are based on TSMC's 6-nanometer manufacturing process, and they mostly use AMD's new Zen 3+ architecture, which provides performance and efficiency gains over the Zen 3 architecture that was introduced in 2020. The "high-performance, ultra-efficient" architecture sports 50 new and enhanced power management features and an adaptive power management framework, which allows the new chips to support up to 24 hours of battery life for video playback, AMD said.

The Ryzen 6000 mobile processors cover three laptop segments—thin and light, gaming and content creation, and commercial—and they will help power more than 200 premium laptops this year, with availability starting in February. With the lineup's Ryzen 9 6980HX hitting 5GHz for gaming laptops, the new processors feature AMD's "fastest clock frequencies" yet, according to AMD.



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Find more information on the AMD Ryzen 6000 series here.
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AMD's CES 2022 announcements

- AMD Ryzen 6000 mobile processors
- AMD Ryzen 7 5800X3D
- AMD Radeon RX 6500 XT
- Radeon Super Resolution
- AMD Radeon RX 6000S and RX 6000M gaming laptops

This was AMD's CES to conquer, and it absolutely smashed it. The red team came out with heaps of new tech to show off, and topped it off with the pièce de résistance, a glimpse of its upcoming Zen 4 chips.

The main event was AMD's Ryzen 6000 mobile processors, which are destined to power some of the top gaming laptops in 2022. The key to their PC gaming appeal lies in the RDNA 2 graphics silicon stuffed within, which AMD says it's up to 2x faster than previous Ryzen 5000 mobile chips. There's a whole lot to these chips, but the key thing is they look stellar for portable gaming and productivity, thanks to an improved Zen 3+ architecture. *Arriving February.*



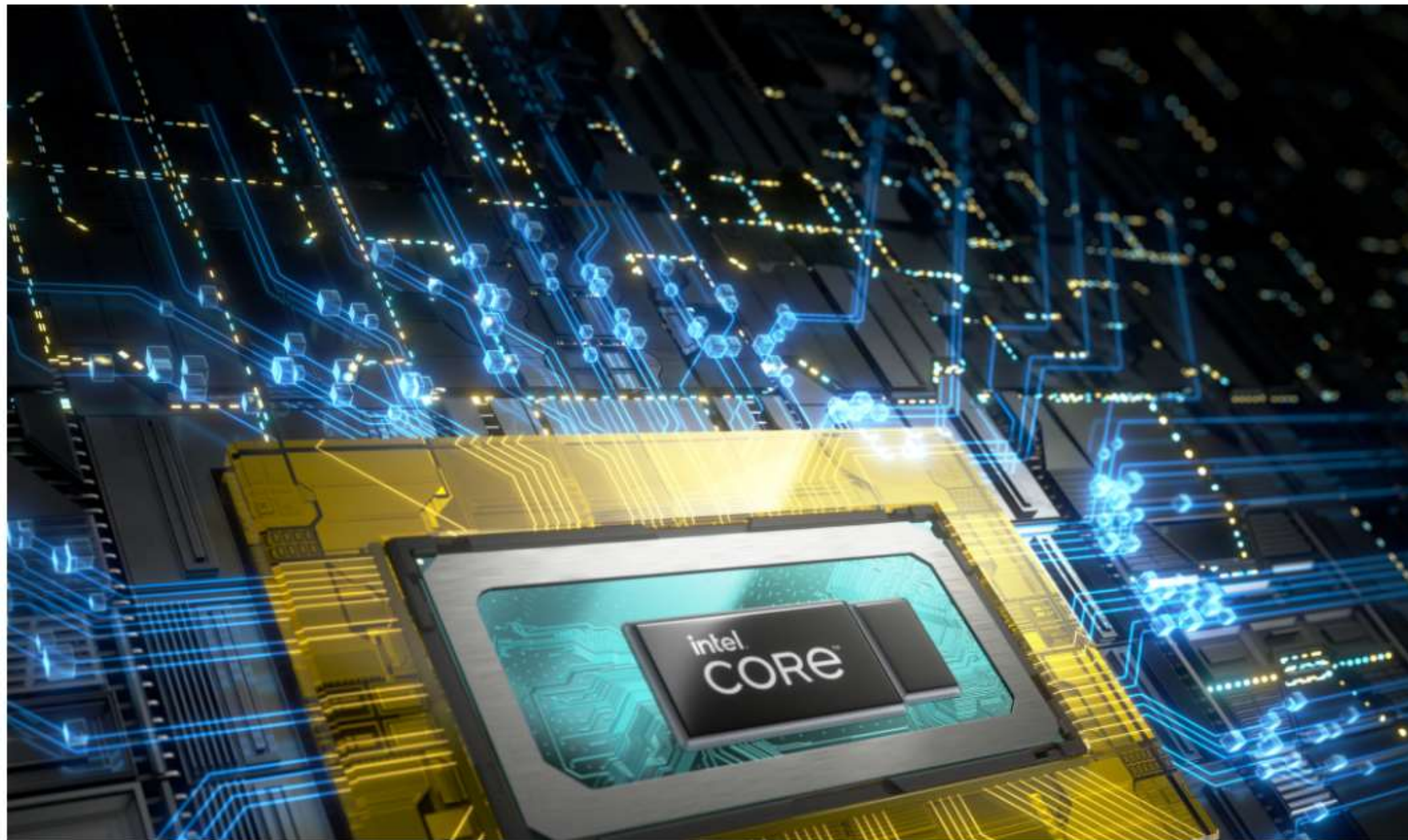
AMD reports a significant performance

First teased in 2021, AMD has now announced that its first gaming chip with 3D V-cache is on the way: the AMD Ryzen 7 5800X3D. This chip features stacked memory technology, which will massively increase the available memory within the CPU p

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Intel launches “Alder Lake” 12th-gen mobile CPUs



The rivalry between AMD and Intel is growing *intense*, and Intel's long-awaited mobile Alder Lake CPUs set the stage for some epic competition during 2022. Intel's already promising a more than 28 percent performance boost over Tiger Lake, and there's always a flood of Intel-powered notebooks to choose from. Here are the [new Alder Lake mobile chips](#) that will help you make that buying decision for new PCs released during 2022—including new "P"-class chips we haven't seen before.

Intel fills out desktop CPU line with new "KS" Alder Lake chip, and more

If you look closely at Intel's "Alder Lake" specs, you can see that Intel has a lot of knobs to turn: clock speed, power, and now the numbers of "performance" and "efficiency" cores within Alder Lake, too. How about *no* efficiency cores? Yep, you'll have that choice. What about a massively powerful 5.5GHz processor? That option is there, too. Be prepared that when you're picking out a 12th-gen Core tablet or notebook you'll have a bunch of options to choose from, and [our story](#)

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Let's start with what Intel has in store.

Intel at CES 2022

Intel debuted its 12th gen Alder Lake desktop CPUs last year. At CES 2022, Intel's most significant response to the M1 is going a step further and extending the performance with the 12th gen Alder Lake KS series. It has a hybrid design that streamlines performance and efficiency, clocking a record 5.5 GHz. The 12th gen KS series will be available by March 2022.

Next up is Intel's Alder Lake H-series for laptops with 14 cores and up to 5 GHz frequency. In total, eight H-series processors were announced by the Santa Clara, CA-based company, currently looking to reclaim its crown in the computing space.

12th-Generation Intel Core H-Series

Intel said that its new **12th-generation Intel Core H-series mobile processors** can take on not just AMD but Apple too when it comes to high-performance laptops.

The chipmaker is calling the new H-series “the fastest mobile processor ever” and said the flagship Core i9-12900HK outperforms **AMD’s flagship H-series CPU** from last year and **Apple’s new M1 Max** that powers the latest MacBook Pro models. Intel said the 12th generation represents its fastest ramp yet for H-series processors, with more than 100 laptop designs expected this year from Acer, Dell, Gigabyte, HP Inc., Lenovo, MSI and more. Systems will be available starting in February.

Intel said the lineup’s flagship Core i9-12900HK provides up to 40 percent faster performance than the previous Core i9-11980HK. It also said the processor outperforms AMD’s flagship Ryzen 9 5900HX across multiple measures, including games and content creation applications. Intel measured the chip against Apple’s M1 Max and M1 Pro chips too and found instances where Intel’s is better or on par.

PC partners

January 4, 2022

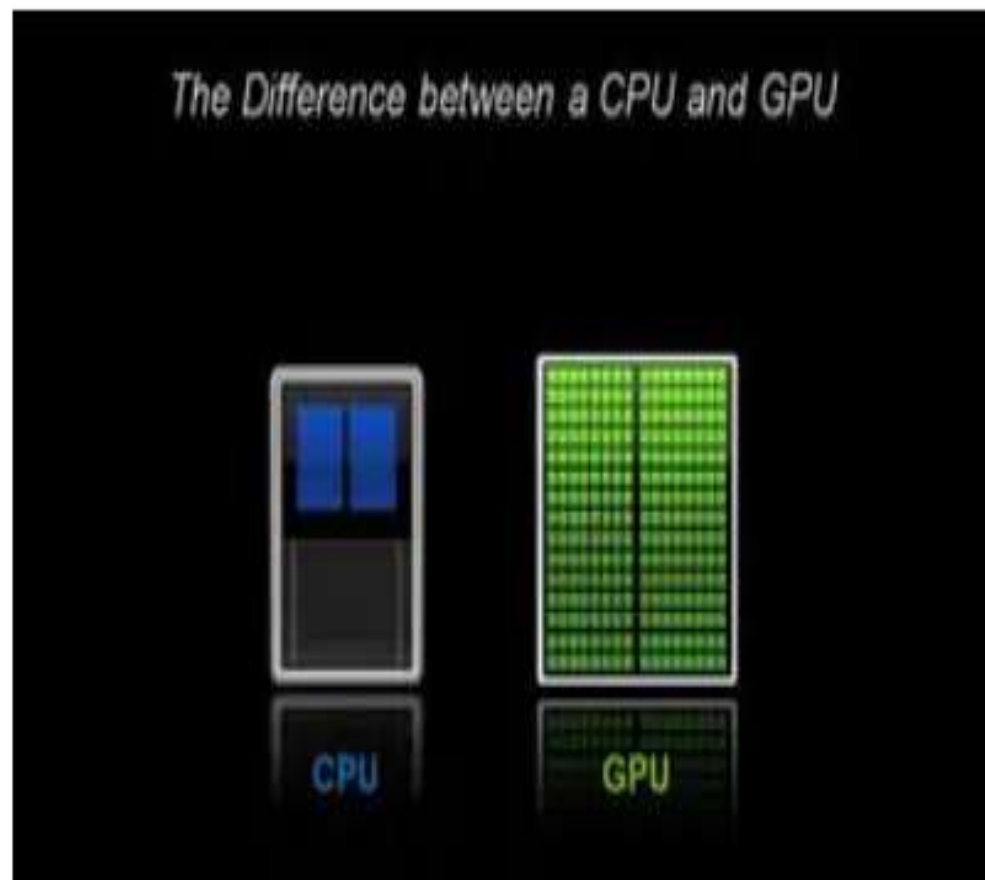
CES 2022: NVIDIA announces new GPU, GeForce RTX 30 Series laptops, GPUs and more

By Athima Chansanchai, Writer



At CES 2022, NVIDIA announced its new GeForce RTX 3080 Ti and 3070 Ti Laptop GPUs, with the latter the newest GPU in the company's fastest growing segment. Both are built on award winning NVIDIA Ampere architecture, with technologies like ray tracing for the most immersive and realistic experiences.

What Is a GPU?



What's the difference between a CPU and a GPU?

While GPUs (graphics processing unit) are now about a lot more than the PCs in which they first appeared, they remain anchored in a much older idea called parallel computing. And that's what makes GPUs so powerful.

CPUs, to be sure, remain essential. Fast and versatile, CPUs race through a series of tasks requiring lots of interactivity. Calling up information from a hard drive in response to user's keystrokes, for example.

By contrast, GPUs break complex problems into thousands or millions of separate tasks and work them out at once.

That makes them ideal for graphics, where textures, lighting and the rendering of shapes have to be done at once to keep images flying across the screen.

GPUs are also being implemented for Artificial Intelligence (AI) applications

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CES 2022: all the gaming reveals and announcements you need to know about

By [Tabitha Baker](#) published January 10, 2022

New monitors, laptops, processors, and graphics cards dominated CES 2022



COMMENTS



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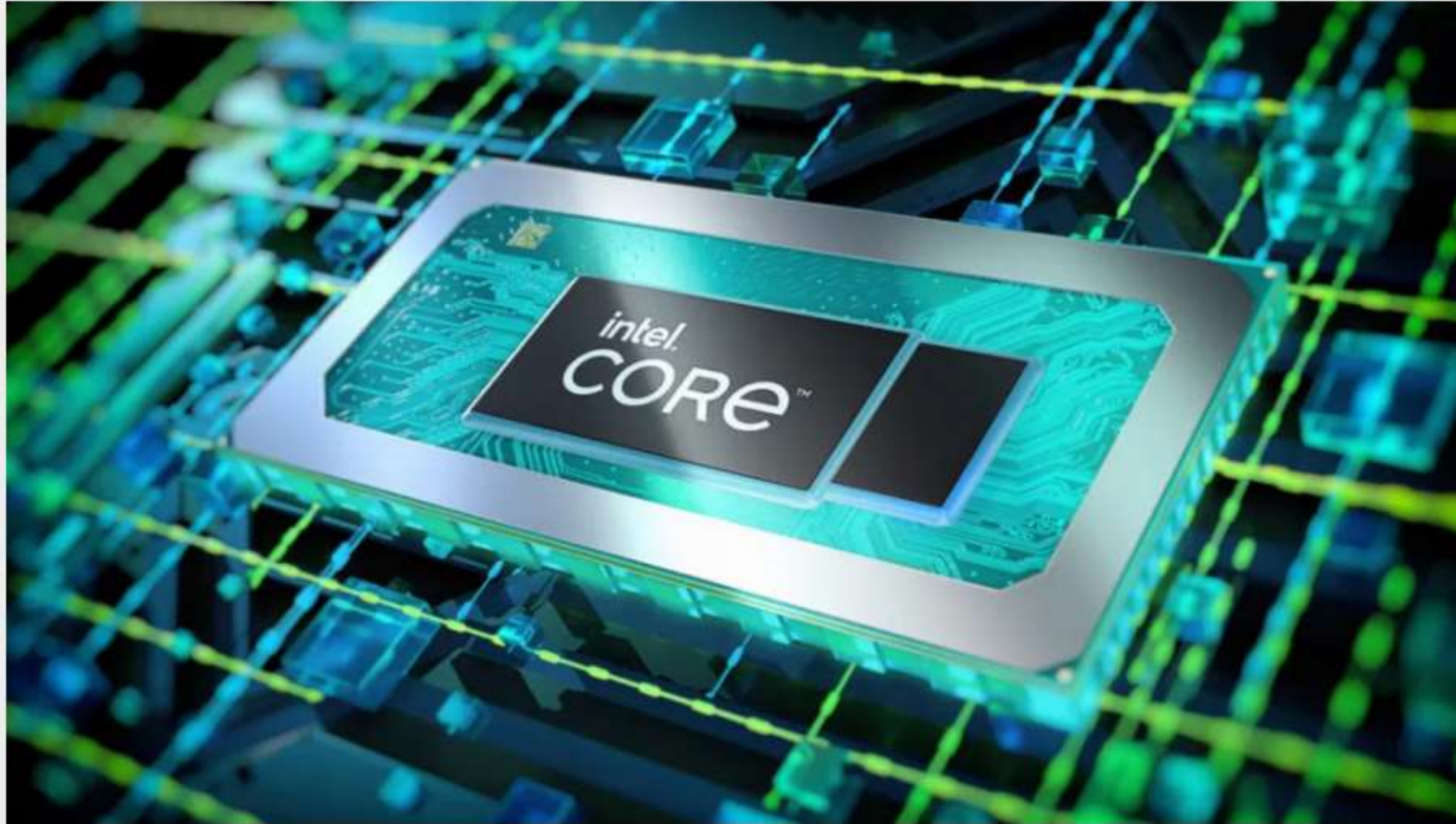
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DELL Technologies

1. Intel Alder Lake mobile chips



(Image credit: Intel)

Laptop brands are lapping up Intel's latest 12th generation processors

2. PlayStation VR2



(Image credit: CES)

Sony's next-generation VR headset finally gets a name... and some hefty specs

We knew PlayStation VR2 was on the way, but CES 2022 confirmed Sony's next step in the virtual reality space with a next-generation spec sheet and a name. While this is more of a nod than a full reveal, CES is rarely home to big console news so even though we were only fed scraps of information, they still tasted pretty damn good.

3. Samsung / Dell Quantum Dot OLED displays



(Image credit: Dell)

The best of both worlds

Two warring factions came together at CES 2022, to potentially yield one of the **best gaming monitors** yet. Samsung announced its G8QNB display, a Quantum Dot OLED panel at the annual show; one of the first to bring QD and OLED technologies together for a truly premium visual experience. We say it's one of

4. Nvidia RTX 3090 Ti



(Image credit: Nvidia)

A serious graphics card with a serious price tag

Nvidia teased its top-end GPU in its annual CES event, but we wouldn't go reaching for your wallet just yet. The RTX 3090 Ti is going to cost top dollar, but it will be a considerable addition to any setup. With 24GB of GDDR6X at 21Gbps, you're getting similar VRAM amounts to the stock RTX 3090 card, but with a faster memory clock.

5. Samsung Odyssey Neo G8



(Image credit: Samsung)

The world's first 4K monitor at 240Hz - whether you need it or not

Samsung was showing off at CES 2022. The Samsung Odyssey Neo G8 is the world's first gaming monitor capable of running a 4K resolution at a 240Hz refresh rate. Sure, many games can't quite keep up with those specs at this point, and you'll need to dish out for a GPU that can make it to even 144Hz in 4K,

6. Razer Blade 2022



(Image credit: Razer)

The lineup is refreshed with all the latest and greatest components

Razer makes some of the **best gaming laptops** on the market, so a full refresh of the 14-, 15.6-, and 17.3-inch models was always going to be big news. The next generation of **Razer laptops** includes all the latest processors and GPUs, with the addition of DDR5 RAM, a revised keyboard design, and additional cooling features. These machines will be available with GPUs up to RTX 3080Ti - that's some serious grunt for such a slimline design. as well as Intel's 12th generation

Razer Blade 14 Gaming Laptop

This new gaming laptop, which is available for preorder now for shipment on Jan. 13, was introduced at this year's CES. This 14-inch laptop comes with an RGB keyboard and a QHD screen. It has an AMD Ryzen 9 5900HX Processor, a NVIDIA GeForce RTX 3070 graphics card, 16GB of memory and 1TB of solid state drive storage. It uses Windows 10 Home and comes with a free upgrade to Windows 11 once it's available.



Razer Blade 14 Gaming Laptop

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EW!

Best Headphones





HyperX Cloud Alpha Wireless. The gaming accessories company HyperX announced a handful of new products this year, but the one that really caught our eye is a gaming headset that promises 300 hours of battery life. The Cloud Alpha Wireless has many of the same features we've come to love about HyperX headsets: the aluminum forks, plush leatherette earpads, a detachable boom microphone, and easy-to-navigate audio controls on the earcup. New additions include 50-mm drivers that are slimmer and lighter than the drivers used in previous headsets, leaving more room for that big battery. Of course, that 300-hour mark may only be attainable under ideal conditions, at lower volumes, or using a wireless dongle instead of Bluetooth. But if it can reach even 75 percent of that promised time, that's literally days better than most of the



Home / Laptops

FEATURE

5 laptop trends from CES 2022 you can't ignore

Setting the tone for the future

Laptops grow in power (and power consumption)

The PC laptop world was focused on large, heavy, and expensive laptops at CES 2022. While AMD, Intel, and Nvidia continue to make silicon focused on thin-and-light systems, the most exciting announcements remain in the realm of high-power, high-performance mobile computing. Even the best thin-and-lights, like the [Dell XPS 13 Plus](#) and [Lenovo ThinkPad Z](#), are appealing because they attempt to stuff ever-faster hardware into modest footprints (whether they're successful remains to be seen).

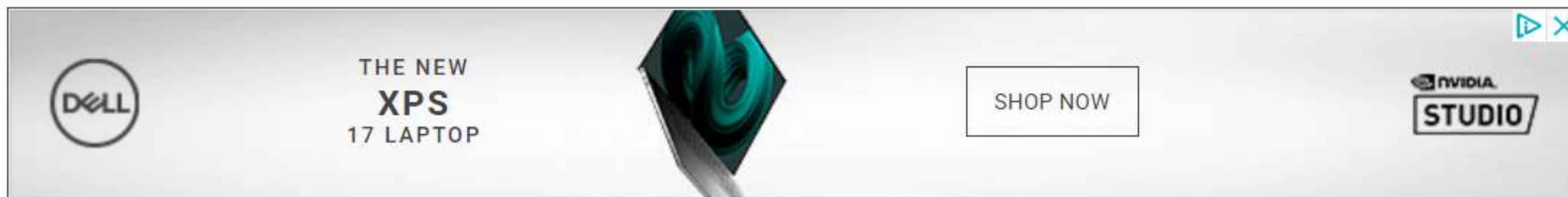
Faster integrated graphics is a win for budget laptops

Performance [laptops](#) took the spotlight at CES 2022, but there was good news for those who want a budget laptop or a speedy thing-and-light. AMD and Intel announced new integrated graphics (IGP) options that provide the biggest year-over-year performance gain since the release of the first Ryzen APUs.

Both wired and wireless connectivity get an upgrade

There's more to a laptop than CPU and GPU performance. Connectivity and Wi-Fi performance often just as important to your day-to-day experience – and there's big upgrades landing in 2022.

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The advertisement banner features a light gray background. On the left is the Dell logo. To its right, the text 'THE NEW XPS 17 LAPTOP' is displayed. In the center is a close-up image of a teal-colored laptop hinge. To the right of the image is a white rectangular button with the text 'SHOP NOW'. On the far right is the NVIDIA Studio logo, which includes the NVIDIA logo and the word 'STUDIO' in a stylized font. In the top right corner of the banner, there are small blue icons for a play button and a close button (an 'X').

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Physical connectivity is improving with the arrival of [USB 4](#) and [Thunderbolt 4](#). These are not new announcements for CES 2022 and already available in some laptops, but they'll become more widely available in 2022. Intel's 12th-gen Core mobile platform supports both USB 4 and Thunderbolt 4, so these features will become common as new models appear through 2022. AMD's Ryzen 6000 mobile does not support Thunderbolt 4 but does support USB 4.

AMD and Intel's mobile hardware will support [Wi-Fi 6E, the latest Wi-Fi standard](#). It opens a new 6GHz wireless band. I've tested Wi-Fi 6E routers and can vouch for their speed. They effectively render Gigabit Ethernet obsolete for most homes, as Wi-Fi 6E can reliably offer speeds of 800Mbps or higher in real-world conditions.

Battery life struggles to keep up and AMD makes an unrealistic claim

Most laptop trends at CES 2022 are positive, and doubly so if you care about performance. If you want multi-day battery life, however, I don't think the industry is heading in the right direction.

In part, this circles back around to the first trend: big, fast laptops that consume a lot of power.

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Intel Core i7

A big focus for laptops at CES 2022 is around the concept that so many people are now “hybrid workers”

Resulting in need for better web cams for all those web meetings

This also means a focus on ability to view and manage multiple screens



[See details ^](#)

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Best laptops of CES 2022

These new laptops, tablets and hybrids set the stage for the year ahead.

Here's a powerful business laptop

Lenovo ThinkPad Z13 and Z16



Lenovo

The ThinkPad business laptop line turns 30 this year and while ThinkPads aren't quite the black boxy laptops they were decades ago, most don't look strikingly different either. The new Z-series ThinkPads -- available in 13- and

The ThinkPad business laptop line turns 30 this year and while ThinkPads aren't quite the black boxy laptops they were decades ago, most don't look strikingly different either. The new Z-series ThinkPads -- available in 13- and 16-inch sizes -- do shake things up a bit with bodies made from recycled aluminum in gray or black with bronze or gray accents, or even recycled black vegan leather on the lid. More importantly they're indicative of all the other trends we saw at CES this year: 16:10 OLED displays, full-HD webcams with IR for facial recognition and even haptic touchpads. They'll also get AMD's new Ryzen Pro 6000 processors announced at CES. [Read more about the Lenovo ThinkPad Z13 and Z16.](#)

Lenovo ThinkPad Z-Series

While talking about a Lenovo ThinkPad may put some to sleep, the new Z-Series coming from the company is intended to quite the opposite.

The Z-Series is a slightly less dramatic change to the flagship design than the Dell XPS 13 Plus, but is a noteworthy one none the less.

The Z13 and Z16 are unironically targeted at the Gen Z business types and come with materials that include vegan leather, compostable bamboo and even sugarcane.



Eco-friendly

Both Lenovo and Acer announced continuations to their sustainability efforts in their [Yoga 6](#) and [Vero: National Geographic Edition](#), respectively.

The Yoga 6 comes with "over 25 percent of its battery cells using post-consumption plastic, packaging that consist of 90 percent recycled plastic and the device itself using recycled aluminum and 50 percent recycled plastics for its fabric coverings."

While the Vero: National Geographic Edition "features 30% post-consumer recycled (PCR) plastic throughout its chassis, 50% PCR in its keycaps, and has been designed to be easily upgraded and repaired."



Dell XPS 13 Plus



Dan Ackerman/CNET

The Dell XPS 13 is one of my go-to premium laptops, as it has a great design, decent specs and a price in the same ballpark as the MacBook Air it closely resembles. A new premium version, called the XPS 13 Plus, leans into the

The Dell XPS 13 is one of my go-to premium laptops, as it has a great design, decent specs and a price in the same ballpark as the MacBook Air it closely resembles. A new premium version, called the XPS 13 Plus, leans into the "minimalist and modern" look. There's no discernible touchpad, just a single piece of glass all the way along the front. Instead of physical function keys, there's now a touch-controlled strip that can swap between Fn keys and media control keys. I'm reserving judgement on both of those. They look cool, but might be impractical. More importantly, the display can go up to a 4K OLED screen and 28-watt Intel processors, up from 15-watt CPUs on other XPS 13 laptops. [Read more about the Dell XPS 13 Plus.](#)

HP's ultralight Elite Dragonfly laptop brings a Chromebook friend to CES 2022

The third-gen Dragonfly still weighs just 2.2 pounds, but it's tuned up for remote workers.

This is an attempt to create a more ‘industrial strength Chromebook’ that will appeal to businesses

HP Elite Dragonfly Chromebook



HP

The Dragonfly line is a poster child for laptops designed around hoteling and hot-desking mixed with remote work. The Windows version, called Elite Dragonfly G3, adds a 5-megapixel webcam with Auto Frame and other

If there's one laptop marketing term you're going to see a lot of this year, it's "hybrid work." With more businesses moving away from traditional office spaces toward hoteling and hot-desking mixed with remote work, PC makers are designing laptops to accommodate the needs of work-anywhere professionals. HP's new Elite Dragonfly G3 laptop announced at CES 2022, for example, adds improvements for conferencing and collaboration, while also making it easier to get stuff done without the need to be at your desk or any desk.

Unlike the G1 and G2, the Dragonfly G3 is now a regular clamshell laptop instead of a two-in-one. HP also changed from a 16:9, 13.3-inch display to a 3:2, 13.5-inch size. That'll give you more vertical space for less scrolling through documents and spreadsheets. It's available with three panel options including a full-HD screen with a 1,000-nit brightness -- perfect if you need to work outside or near windows -- and a 3,000x2,000-pixel OLED display.



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Acer Predator Helios 300



(Image credit: Acer)

The [Acer Predator Helios 300](#) stormed CES 2022 with its potent combo of 12th Gen Intel CPUs, up to an Nvidia RTX 3080 GPU and up to 32 GB of RAM. Acer's shipping both 17-inch and 15-inch models of this laptop in 2022, and each is configurable with IPS displays of up to QHD (2,560 x 1,440 pixels) resolution with up to a 165Hz refresh rate.

That means the 2022 Acer Predator Helios 300 will be available in a variety of configurations to suit a range of budgets, and even the cheaper models should have no trouble playing the latest PC games at respectable framerates. A fully tricked-out 2022 Helios 300 should be an absolute beast of a gaming laptop, and we can't wait to get one in for review so we can try it out for ourselves.

for the best CES 2022 gadgets that we think will actually be worth your money this year.

Best laptop: Lenovo ThinkBook Plus Gen 3





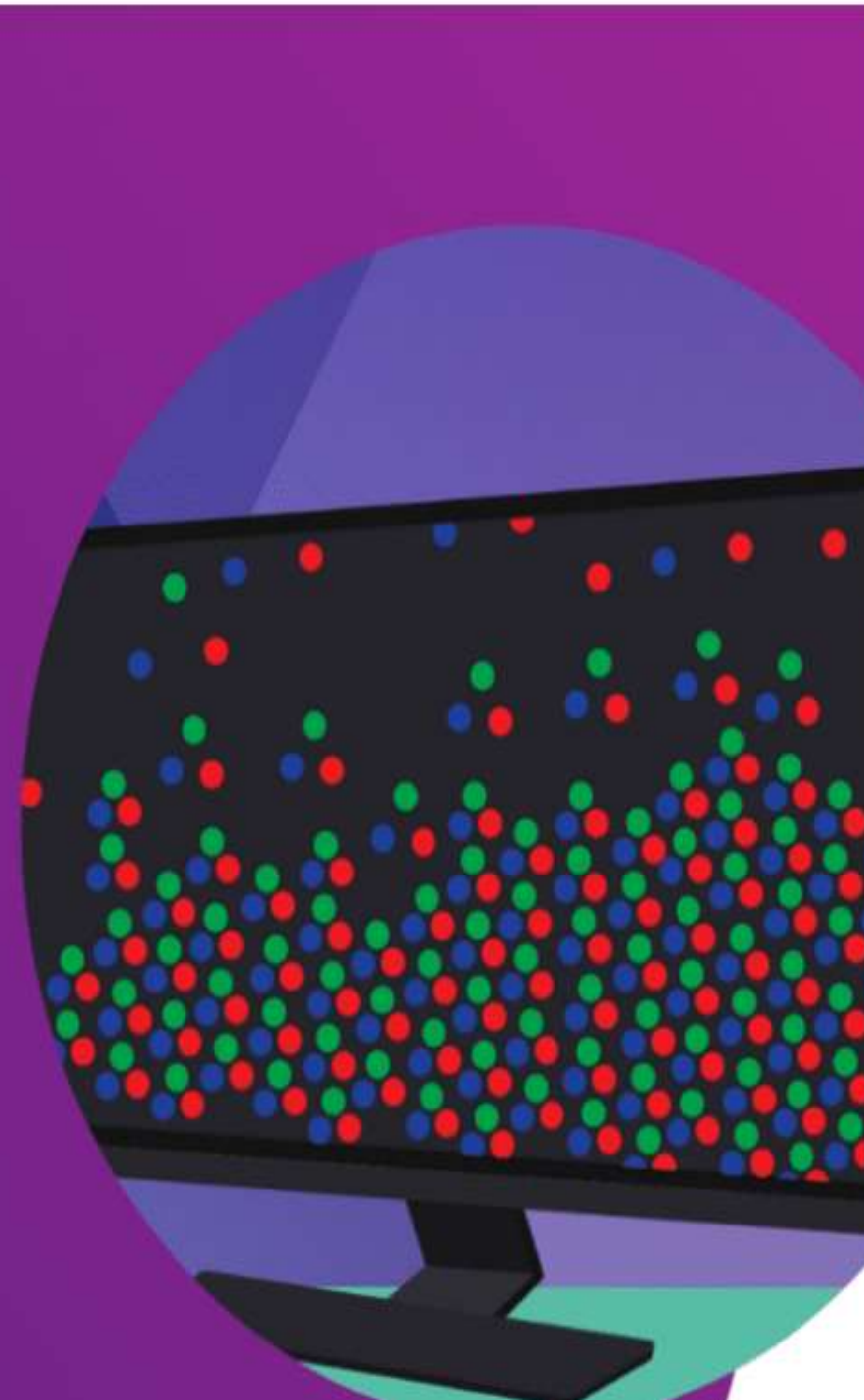
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Quantum Dot is the next big thing in TVs

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What is Quantum Dot Technology?

Quantum dots are a new type of LED-backlit LCD that makes use of tiny phosphorescent crystals. These "nanoparticles" glow when reacting to electricity, delivering more saturated and precise color.



Quantum Dot is the next big thing in TVs

WHAT'S THE DIFFERENCE BETWEEN OLED AND QD-OLED?

QD-OLED screens differ from the traditional OLED panels that've long been manufactured by LG Display in the way they produce an image. LG's displays are considered WRGB OLED, because they use blue and yellow OLED compound to generate white-ish light pixels that are passed through color filters to produce red, green, and blue sub-pixels. More recent OLED TVs also have a fourth unfiltered / white sub-pixel meant to enhance brightness — especially for HDR content.

QD-OLED changes this up by emitting blue light through quantum dots to convert some of that blue into red and green without any need for the color filter. (Blue is used because it has the strongest light energy.) This leads to greater light energy efficiency; since you're not losing any light to the color filters, QD-OLED TVs should offer brightness gains compared to past-generation OLEDs.

And here is the Sony Quantum Dot TV



INSIDER

Sony A95K QD OLED 4K TV



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What is it: The A95K is Sony's new flagship OLED for 2022. It carries over the best-in-class contrast and processing that made the company's [2021 models](#) so impressive, and adds one important new feature: quantum dot color technology.

Why we think it's cool: The A95K is expected to be the first consumer OLED (a type of panel that can brighten and dim individual pixels) to use quantum dots. This advanced color tech enables the TV to deliver more vibrant colors than any other OLED on the market. On regular OLED TVs, colors can wash out in bright scenes, but Sony says quantum dots let the A95K maintain rich, bold saturation. As an added bonus, the TV even comes with Sony's new Bravia Cam for video chatting and gesture controls.

What's questionable: Though it's been speculated that QD OLED panels could enable higher brightness than regular OLEDs, Sony says we shouldn't expect a big increase in the A95K's peak brightness compared to last year's top OLEDs. In other words, QD OLED doesn't look like it will deliver the perfect combination of OLED contrast and LCD brightness that some have been hoping for.

When you can buy it and how much it costs: The A95K will launch this year and Sony says pricing and availability will be detailed in spring. If pricing for [Sony's 2021 flagship OLED](#) is any indication, we can expect the new 65-inch model to sell for at least \$4,000.

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LG C2 OLED 4K TV



What is it: LG's C Series is its most well-rounded 4K OLED option, and the 2022 C2 builds on last year's [top-rated C1](#) with a brighter screen and an improved processor.

Why we think it's cool: The 2021 C1 was my pick for [the best 4K TV of 2021](#), and the C2 is expected to carry over the same overall performance and value. There's also a new 42-inch screen size that should be great for gamers.

What's questionable: Though the C2's new "OLED Evo" panel should provide a slight increase in brightness over last year's C1, I don't expect a big jump. Based on what's been announced, the C1 and C2 will likely look similar.

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Sony Z9K Mini LED 8K TV



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What is it: Sony's new Z9K is the company's top 8K TV model for 2022. In addition to offering four times the number of pixels as a 4K TV, the set uses Mini LEDs for enhanced contrast and brightness, which should deliver better picture performance than last year's [Z9J](#) model.

Why we think it's cool: The Z9K is one of the first Sony TV's to use Mini LEDs. LCD displays with Mini LEDs can have more precise control over contrast. I was impressed with what companies like [Samsung](#) did with Mini LEDs in 2021, so I'm excited to see what Sony does with the tech. Like Sony's flagship OLED, this model also comes with a Bravia Cam.

What's questionable: When it comes to what our eyes can actually see, the benefits of 8K versus 4K remain debatable, especially since there really isn't any 8K content to watch. 8K TVs still look undeniably gorgeous, though, especially on screen sizes of 75 inches and above.

When you can buy it and how much it costs: The Z9K will be released this year. Exact pricing and availability will be announced in spring. For reference, Sony's 2021 [Z9J 8K TV](#) currently starts at around \$5,500.

Hisense U8H Mini LED 4K TV



What is it: Hisense's U8H is set to be the company's top mid-range 4K TV this year. It improves upon its 2021 counterpart, the U8G, through the addition of a Mini LED backlight for better contrast.

Why we think it's cool: The U8G was one of the best TVs in 2021, and the U8H looks like it could offer even better performance for a similar price. It's also great to see another Mini LED option join TCL's 6-Series in the mid-range TV market.

What's questionable: Mini LEDs are superior to regular LEDs in theory, but they have to be implemented in the right way to truly offer an upgrade. This will be the first time Hisense offers a Mini LED TV in this price range, so we're curious to see how it stacks up against TCL and Samsung.

When you can buy it and how much it costs: Mid-summer 2022, starting at \$1,100 for the 55-inch model.

Cars of CES 2022: from a color-changing BMW to a Mercedes with 1,000km range

By John McCann published January 06, 2022

There's been a lot of exciting automotive announcements



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A car that can change colors

BMW iX Flow concept



(Image credit: BMW)

It's the sort of thing you'd expect to see in a James Bond film, but BMW has made a color-changing car that actually works in real life.

The customized, fully electric BMW iX has body panels made from E Ink displays - the same technology you find in the screen of a [Kindle](#) e-reader - in a system it's calling 'iX Flow'.

BMW iX Flow concept



(Image credit: BMW)

It's the sort of thing you'd expect to see in a James Bond film, but BMW has made a color-changing car that actually works in real life.

The customized, fully electric BMW iX has body panels made from E Ink displays - the same technology you find in the screen of a [Kindle](#) e-reader - in a system it's calling 'iX Flow'.

BMW has made a color-changing car... yes, really

Cadillac InnerSpace concept



(Image credit: Cadillac)

Cadillac says the fully autonomous, InnerSpace concept EV "allows two passengers to focus on their journey and not driving", which is nice.

There are a number of standout features in this concept, such as the traditional doors on each side accompanied by a roof canopy that also raises up, giving you enough space to climb in. The seats pivot out as the doors open, making it easier to slide in, and once closed they come together to form a couch.

Chevrolet Equinox EV



(Image credit: Chevrolet)

The Chevrolet Equinox EV is taking the fight to Tesla. With a starting price of around \$30,000 when it hits roads in the US in the second half of 2023, it will undercut Tesla's cheapest offering by more than \$10,000.

At that price, this compact, fully electric SUV will be stiff competition for both the Tesla Model 3 and Model Y (which is also a compact SUV).



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John Deere unveiled an autonomous tractor. Will farmers dig it? - Marketplace

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How John Deere created its autono...

MOLINE, IL (January 4, 2022) — During a press conference at CES 2022, John Deere revealed a fully autonomous tractor that's ready for large-scale production. The machine combines Deere's 8R tractor, TruSet-enabled chisel plow, GPS guidance system, and new advanced technologies. The autonomous tractor will be available to farmers later this year.

The autonomous tractor serves a specific purpose: feeding the world. The global population is expected to grow from about 8 billion to nearly 10 billion people by 2050, increasing the global food demand by 50%. Furthermore, farmers must feed this growing population with less available land and skilled labor, and work through the variables inherent in farming like changing weather conditions and climate, variations in soil quality and the presence of weeds and pests. All of these factors impact a farmer's ability to farm during the most critical times of the year.

The autonomous tractor has six pairs of stereo cameras, which enables 360-degree obstacle detection and the calculation of distance. Images captured by the cameras are passed through a deep neural network that classifies each pixel in approximately 100 milliseconds and determines if the machine continues to move or stops, depending on if an obstacle is detected. The autonomous tractor is also continuously checking its position relative to a geofence, ensuring it is operating where it is supposed to, and is within less than an inch of accuracy.

To use the autonomous tractor, farmers only need to transport the machine to a field and configure it for autonomous operation. Using John Deere Operations Center Mobile, they can swipe from left to right to start the machine. While the machine is working the farmer can leave the field to focus on other tasks, while monitoring the machine's status from their mobile device.

John Deere Operations Center Mobile provides access to live video, images, data and metrics, and allows a farmer to adjust speed, depth and more. In the event of any job quality anomalies or machine health issues, farmers will be notified remotely and can make adjustments to optimize the performance of the machine.

THE FIRST-EVER ALL-ELECTRIC SILVERADO



RESERVE NOW

Simulated vehicle. Actual Production model will vary. Available Fall 2023. Accessory charging unit shown.

The new Silverado joins the Hummer EV in GM's burgeoning electric truck lineup (soon to be accompanied by [Blazer and Equinox](#) EVs) and will arrive in two versions: the RST First Edition, a limited-run production with an MSRP just north of \$100,000, followed by the far more affordable WT fleet edition and standard RST - both of which start at around \$39,900.

Positioned to compete directly with Ford's forthcoming F-150 Lightning, the Silverado EV RST will offer a GM-estimated 400 mile range, up to 664 horsepower and 811 ft-lb of torque with the ability to tow up to 10,000 pounds. The WT version will be slightly less powerful but still boasts 510 hp, 615 lb-ft of torque and 8,000 pounds of towing capacity. Both the RST and WT versions will enter production alongside the Hummer EV line at GM's new Factory ZERO electric vehicle production facility in 2023. – *Andrew Tarantola, Senior Editor*



Mercedes-Benz AG

Mercedes-Benz boasts 620-mile range for its latest EV concept

"The Mercedes-Benz Vision EQXX is how we imagine the future of electric cars," Mercedes-Benz head Ola Källenius said.

Based on the automaker's simulations, the Vision EQXX would use less than 10 kWh to travel 62 miles on public roads, delivering an efficiency of more than 6 miles per kWh. Converted into fossil fuel consumption, Mercedes says that's around the "golden figure" of 1 liter of gasoline per 62 miles.

The battery is half the size of and 30 percent lighter than the one in the [EQS](#). However, it still has a capacity of almost 100 kWh. What's more, there are ultra-thin solar panels on the roof that can add up to 25 km (15.5 miles) of range.

CES 2022

Noveto's 'invisible headphones' will make your roommates hate you less

Forget your earbuds or headphones, just jam out to your favorite playlist through the magic of soundwaves.



Novet

Damn, looks like wireless earbuds are already obsolete. Noveto has debuted its N1 audio device that beams audio right into our ears, eliminating the need for any [earbuds or headphones](#).

The Israeli company was at [CES 2022](#) showing off its new device that beams ultrasonic audio waves to the listener, where only the listener can clearly tune in and others will only be able to catch 10 percent of whatever is playing at around three feet away.



QUESTIONS ?