

BMW's first 'color-changing' concept car is here

What if the color of your car could change based on your mood or the weather?

That's the idea — or, at least, one of the ideas— behind BMW's new "i Vision Dee" concept car, a midsize electric sports sedan covered in futuristic panels that can change color on demand.

BMW describes it as the world's first "color-changing" car. The Dee, which stands for "Digital Emotional Experience," can cycle between 32 different colors,

The car can cycle between 32 different solid exterior colors, with mix-and-match capabilities due to its 240 different panel segments. That's a significant leap past BMW's earlier iteration showcased last year, which could only alternate between black, white and gray.

As with any concept vehicle, the technology behind the Dee's color-changing capabilities is likely years away from consumer availability. Exposure to the elements in day-to-day driving — from car washes to flying insects — keeps the high-tech panels from performing in the real world

For BMW, the car is meant as a glimpse of what could eventually be a much more colorful future. "This allows an almost infinite variety of patterns to be generated and varied within seconds," the company said in its press release, which described the light show as a "magical display of color."

The Dee's outer skin is a film made of electronic paper built by a startup called E Ink, which also makes display tech for e-readers and mobile phones. The coating segments contain millions of tiny microcapsules with different color pigments that change shades when electricity is applied.

The electronic coating is "ultra-low power," so changing the car's colors won't drain the electric vehicle's battery

it's able to manufacture its panels in any shape imaginable — potentially leading to applications like e-reader screens that mimic the look of actual paper or more energy-efficient digital signs and smartwatch displays.

BMW hasn't released specs for the Dee's engine or battery, but says the concept car is additionally loaded with futuristic hardware and software that'll be available in cars on the road by 2025.

That includes BMW's Head-Up display, a digital dashboard that spans the entire width of the windshield. It also features a Mixed Reality Slider, a touchscreen that allows you to control how much digital content is displayed on that dashboard, from driving speed and battery range to music controls and text messages.

But don't expect to see the color-changing tech in your garage anytime soon.