



SCIENCE & TECHNOLOGY

BMW Presents Car that Can Digitally Change Colors

January 11, 2022

German automaker BMW has presented a new model that permits drivers to change the vehicle's colors.

The concept car, called BMW iX Flow, was recently shown at the CES technology show in Las Vegas, Nevada. A concept vehicle is one that has been produced for demonstration purposes, but is still in development.

The company says an electronic **ink** technology makes it possible to change the car's outside colors and add **patterns**. The same kind of technology, which BMW calls Electronic Paper Display, is used in electronic reading devices.

A demonstration at CES showed the iX Flow model changing from white to gray. The changes are possible in each **panel** of the vehicle. This permits several possibilities for different color and pattern combinations all around the car. The demonstration included one setting that created racing **stripes**.

BMW says the material that enables the technology contains differently charged white, black or colored particles. Different colors appear when an electrical field is activated. Signals to activate the changes can be sent by controls inside the car or by phone.

The company said no energy is required to keep the color the driver chooses.

"We took this material – it's kind of a thick paper – and our **challenge** was to get this onto a **3D** object like our cars," BMW research engineer Stella Clarke told Reuters.

"My favorite use case is the use of color to influence sunlight **reflections**," Clarke said. "On a hot, sunny day like today, you could switch the color white to reflect sunlight," she explained. "On a cold day, you could switch it to black to **absorb** the heat."

The vehicle shown at CES could only change between gray and white. But the automaker says the technology will be expanded to include a wide choice of colors.

I'm Bryan Lynn.

Reuters reported on this story. Bryan Lynn adapted the report for VOA Learning English.

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Words in This Story

ink – *n.* a liquid material used for writing and printing

pattern – *n.* a design of lines, shapes, colors, etc.

panel – *n.* a separate or distinct part of the surface of something

stripe – *n.* a long, straight area of color

challenge – *n.* a difficult task or problem; something that is hard to do

3D (three-dimensional) – *n.* having or appearing to have length, depth and height

reflect – *v.* to throw back light or sound

absorb – *v.* to take in in a natural way