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BMW iX Flow named to TIME's List of Best Inventions 2022

- Body surface with real color change thanks to electrophoretic technology named to TIME's List of Best Inventions for 2022.
- Potential for future interior and exterior applications.

Woodcliff Lake, NJ – November 10, 2022... Today, TIME reveals its annual list of the Best Inventions for 2022, which features 200 extraordinary innovations. To compile the list, TIME solicited nominations from TIME's editors and correspondents around the world, and through an online application process, paying special attention to growing fields such as the electric vehicle industry, green energy, and the metaverse. TIME then evaluated each contender on a number of key factors, including originality, efficacy, ambition, and impact.

Of the new list, TIME's editors write, "The result is a list of 200 groundbreaking inventions (and 50 special mention inventions) including life-mapping artificial intelligence, diamonds made from excess carbon in the air, and the most powerful telescope ever that are changing how we live, work, play, and think about what's possible.

The full list is available here: time.com/best-inventions-2022

Color change at the touch of a button.

The BMW iX Flow featuring E lnk is a unique vehicle capable of changing its entire body color at the touch of a button and was first revealed at the Consumer Electronics Show 2022 in Las Vegas. By making it possible to alter the body color and display different patterns, the BMW iX Flow opens up a whole new way of personalizing the driving experience.

A variable exterior color can also contribute to wellness in the interior and to the efficiency of the vehicle. This is done by taking account of the different abilities of light and dark colors when it comes to reflecting sunlight and the associated absorption of thermal energy. A white surface reflects a lot more sunlight than a black one. By implication, heating of the vehicle and passenger compartment as a result of strong sunlight and high outside temperatures can be reduced by changing the exterior to a light color. In cooler weather, a dark outer skin will help the vehicle to absorb noticeably more warmth from the sun.

In both cases, selective color changes can help to cut the amount of cooling and heating required from the vehicle's air conditioning. This reduces the amount of energy the vehicle electrical system needs and with it also the vehicle's fuel or electricity consumption. In an all-electric car, changing the color in line with the weather can therefore also help to increase the range. In the interior, the technology could, for example, prevent the dashboard from heating up too much.

E lnk technology itself is extremely energy efficient. Unlike displays or projectors, the electrophoretic technology needs absolutely no energy to keep the chosen color state constant. Current only flows during the short color changing phase.

Millions of paint capsules in a custom wrap.

Electrophoretic coloring is based on a technology developed by E lnk that is most well-known from the displays used in eReaders. The surface coating of the BMW iX Flow featuring E lnk contains many millions of microcapsules, with a diameter equivalent to the thickness of a human hair. Each of these microcapsules contains negatively charged white pigments and positively charged black pigments. Depending on the chosen setting, stimulation by means of an electrical field causes either the white or the black pigments to collect at the surface of the microcapsule, giving the car body the desired shade.

BMW Group In America

BMW of North America, LLC has been present in the United States since 1975. Rolls-Royce Motor Cars NA, LLC began distributing vehicles in 2003. The BMW Group in the United States has grown to include marketing, sales, and financial service organizations for the BMW brand of motor vehicles, including motorcycles, the MINI brand, and Rolls-Royce Motor Cars; Designworks, a strategic design consultancy based in California; a technology office in Silicon Valley and various other operations throughout the country. BMW Manufacturing Co., LLC in South Carolina is the BMW Group global center of competence for BMW X models and manufactures the X3, X4, X5, X6 and X7 Sports Activity Vehicles. The BMW Group sales organization is represented in the U.S. through networks of 350 BMW passenger car and BMW Sports Activity Vehicle centers, 145 BMW motorcycle retailers, 105 MINI passenger car dealers, and 38 Rolls-Royce Motor Car dealers. BMW (US) Holding Corp., the BMW Group's sales headquarters for North America, is located in Woodcliff Lake, New Jersey.

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