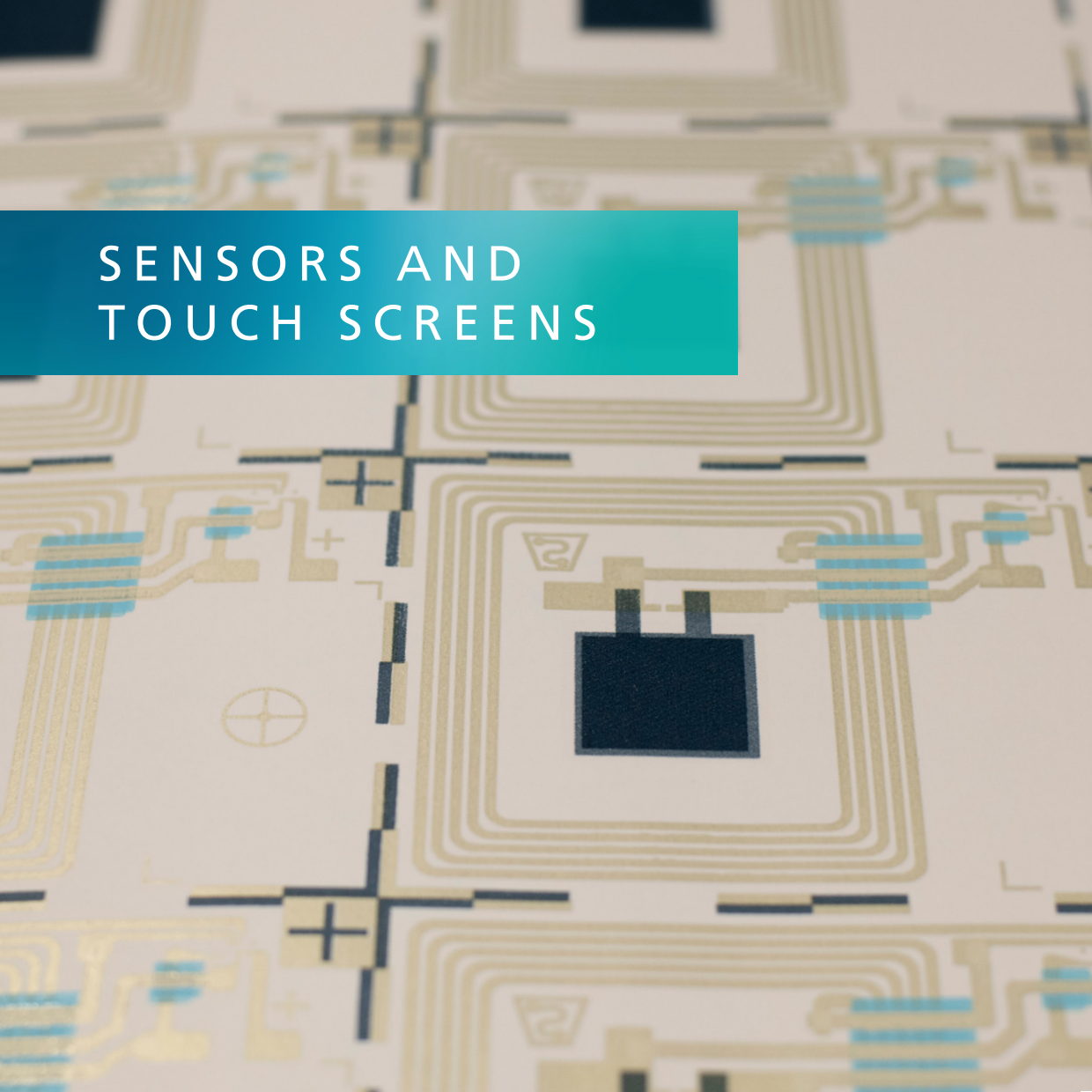


A close-up photograph of a flexible circuit board. The board is light-colored with intricate gold-colored traces. Several blue solder pads are visible, some with multiple parallel lines. A central black component, possibly a sensor or microchip, is mounted on the board. The text "SENSORS AND TOUCH SCREENS" is overlaid in a teal box on the left side.

SENSORS AND TOUCH SCREENS

SENSORS AND TOUCH SCREENS

PRINTED FLEX SENSORS

Imagine making plastic films not only functioning as touch screens but also sensitive to deformation! Our printed sensors are designed for flexible displays and surfaces and can be applied across various substrates, including rigid materials, films, paper, and complex shapes in 3D.

Discover the future of flexible, printable sensor technology! Contact us for more insights in flexible printable sensors and learn how our innovative solutions can elevate your display technologies!

WORKING PRINCIPLE

At Fraunhofer ISC, we have developed a groundbreaking piezoelectric technology with a printing paste that transforms flexible polymer films into sensitive surfaces. This technology enables the simple printing of pressure sensors directly onto flexible film substrates, creating pressure and bending sensors essential for flexible touchscreen applications. Best of all, these sensors operate without the need for external power and can be scaled to generate endless sensor arrays!

PRINTING ADVANTAGE

Our method enables the production of more powerful sensors at a lower cost compared to traditional techniques, significantly reducing material expenses. Furthermore, the printed pressure sensors can also work as actuators, enhancing their versatility. Utilizing ferroelectric polymers as the base material, our printing pastes align spontaneously, eliminating the need for mechanical stretching processes. Plus, these sensors can seamlessly be integrated with capacitive sensor technology.

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