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Researchers develop low cost sensor to monitor health

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An international team of researchers from the University of Cambridge and King Abdullah University of Science and Technology (KAUST) in Saudi Arabia has developed a low-cost sensor made from semiconducting plastic that can be used to diagnose or monitor a wide range of health conditions, such as surgical complications or neurodegenerative diseases.

The sensor can measure the amount of critical metabolites, such as lactate or glucose, that are present in sweat, tears, saliva or blood, and, when incorporated into a diagnostic device, could allow health conditions to be monitored quickly, cheaply and accurately. The new device has a far simpler design than existing sensors, and opens up a wide range of new possibilities for health monitoring down to the cellular level.

According to the researchers, the sensor can be easily modified to detect other metabolites, such as glucose or cholesterol by incorporating the appropriate enzyme, and the concentration range that the sensor can detect can be adjusted by changing the device's geometry.