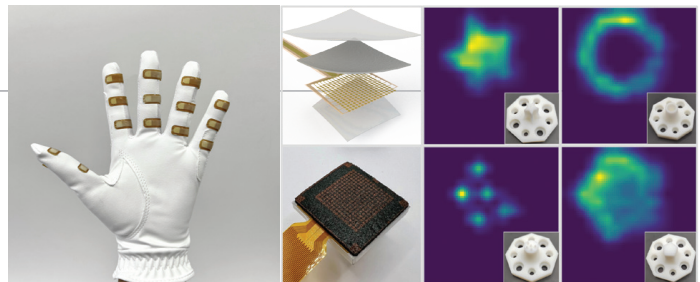




ViaTac Tactile Sensor Array

ViaTac is a high-resolution piezoresistive tactile sensor array designed for conformal contact with object surfaces, offering exceptional spatial resolution and outstanding durability across a wide force range. This cost-effective solution significantly enhances the dexterous manipulation capabilities of robots, making it ideal for applications in logistics, domestic tasks, and various service robots scenarios.



Innovations and Technologies

- Innovative utilization of flexible printed circuit (FPC) via as electrodes to achieve cost-effective, high spatial resolution tactile sensor array
- Integration of sensing and stretchable encapsulation layers through thermal compression bonding, ensuring structural stability while enabling conformal contact with object surfaces
- Customized data acquisition circuit with row-column scanning architecture and anti-crosstalk design, enabling high-speed sampling of large-scale tactile sensor array

Target Applications

- Tactile Dexterous Hands: Tailored and seamlessly integrated into various robotic hand designs, enabling human-like sensing and manipulation capabilities
- IRobotic Electronic Skin: Creates flexible, large-area tactile surfaces for whole-body awareness in collaborative and service robots