

# Smart Magnetic Field Sensor Technologies

FLEXiSENS

Helmholtz Innovation Lab at 

Magnetosensitive smart skins enable touchless interactivity relying on perception of magnetic fields



- Skin-conformal | Flexible | Stretchable
- Augmented | Virtual reality appliances
- Motion control of soft robots
- Touchless and tactile interactivity using magnetic MEMS

... Nature Electronics (2018) & Science Advances (2018) & Nature Communications (2019) & Advanced Materials (2021)...

## Skin-conformal printed magnetic field sensors: interactive electronics applications



## Self-aware magnetic soft robots



## Tissue-conformal multifunctional implants



Adv. Eng. Mater. (2019)

- On-site tissue heating
- Cancer treatment

...Advanced Materials (2021) & Patent: DE 10 2019 211 970.0...  
Cooperation with FhG-IKTS & FhG-IWS & FhG-FEP

Advanced Materials (2021)  
Communication Mater. (2020)

DRESDEN  
concept

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