INNOVATION WITH HEART

Melexis

MLX90900

Giving cobots a sense of touch

and a human-like perception

Melexis

The **MLX90900**. **A tactile sensor** designed for cobots that could benefit the sense of touch. The sensor is **compact** and **lightweight** (6x6x5 mm^3). Embedded in an elastomer, a magnet and 3D magnetometer integrated circuit (IC) work together using **Hall-effect technology** for **precise 3D force sensing**.

Fully integrated and mass-manufactured using cutting-edge semiconductor technology, the MLX90900 ensure accurate force measurements with **high sensitivity**, all while being **robust against stray fields** and harsh environments.

Let's give cobots a sense of touch, paving the way for safer, more efficient and accurate collaboration.

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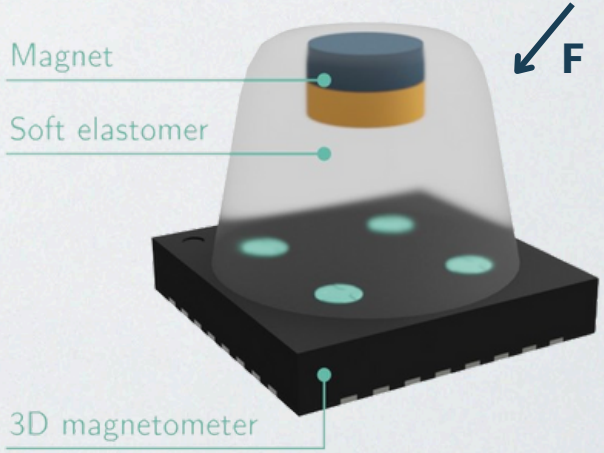
MLX90900 Tactile Sensor

The innovative Tactaxis™ technology



3D FORCE SENSING

Range:

- Normal force: 5N
- Shear force: 2N

Specifications:

- Accuracy: 10% Full scale
- Precision: 1% Full scale
- Resolution: 10Nm

COST-EFFECTIVE

Compact and lightweight

6x6x5 mm^3

Monolithic tactile sensor (taxel)

Ease of mechanical integration and electrical interface

ROBUST

Stray magnetic field immunity

Thermal stability

Harsh environment ruggedness

Melexis

MLX90900 Tactile Sensor

Melexis, a trusted partner

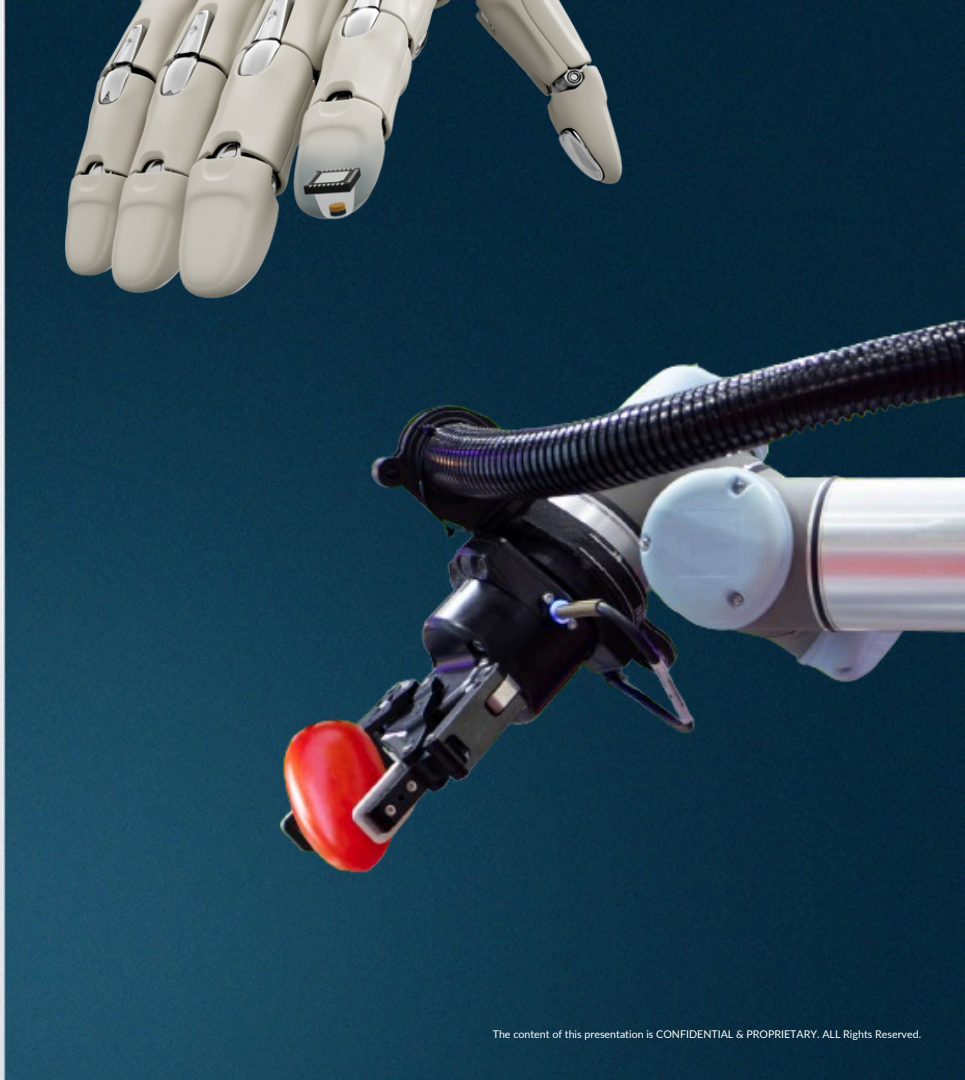
- Magnetic position sensor using 3D Hall-effect technology - Melexis' core expertise since 1994
- Ready for mass-manufacturing using state-of-the-art semiconductor and elastomer technologies
- Intellectual Property (IP): stray field rejection, slip detection algorithm, sensor integration

Melexis

MLX90900 Tactile Sensor

Enablers for your cobots

- Handling fragile objects and performing delicate tasks
- Seamless, more efficient and safer interactions
- Market expansion unlocked



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MLX90900 Tactile Sensor

Key features

- Slip and contact detection
- Force control
- Weight estimation

Applications

- Pick and place
- Assembling
- Handling
- Harvesting
- Gripping
- ...

CONTACT US

For any questions, partnerships or advanced projects, do not hesitate to contact our expert

Julien Ghaye

jug@melexis.com

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