# MIA HAND

BORN TO BE ABLE

# FORCE SENSORS

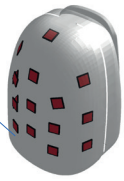
Mia Hand is a self-contained robotic hand with all functional components, including sensors, embedded in its palm and fingers. Mia Hand can be provided with two types of sensorization to support effectively any research activity or industrial application.

## MONOAXIAL FORCE SENSOR

Pure force sensors integrated at the base of the finger provide quantitative grip force information irrespective of the location of the contact point. The fingertip is fully sensorized.

### TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Position | thumb, index, middle fingers |
| Axes | 1 |
| Force range | 0-44 N |
| Sensitivity | 2 mV/N |
| ADC resolution | 10 bit |
| Hysteresis | ±0,070 %FSO |
| Linearity | ±0,10 %FSO |
| Overall size | embedded in the finger |



## TACTILE MATRIX

This state-of-the-art force sensor allows for precise recording of interaction forces on multiple contact points. The sensor is completely integrated in the thumb.

### TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Position | thumb |
| Axes | 16 single axis taxels |
| Force range | 0-10 N (single taxel) |
| Resolution | 0.1 N |
| Hysteresis | 3% |
| Cross-talk | <0.1% |
| Overall size | 27 x 21 x 21 mm (LxWxD) |

Available combinations:
- Monoaxial sensors on thumb, index, middle fingers
- Monoaxial sensors on index and middle fingers and tactile matrix on thumb

Interchangeable skin