uSKIN CURVED

Provides the Human Sense of Touch to Robots

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Allegro Hand Integration with Curved Fingertips

Integrating uSkin regular sensors and uSkin Curved onto the Allegro Hand provides you with 368 3-axis measurements.

The curved fingertips ensure a natural interation with the grasped object, making it possible for robots to perform actions as we humans do with our hands.



FEATURES OF ALLEGRO HAND by WONIK Robotics

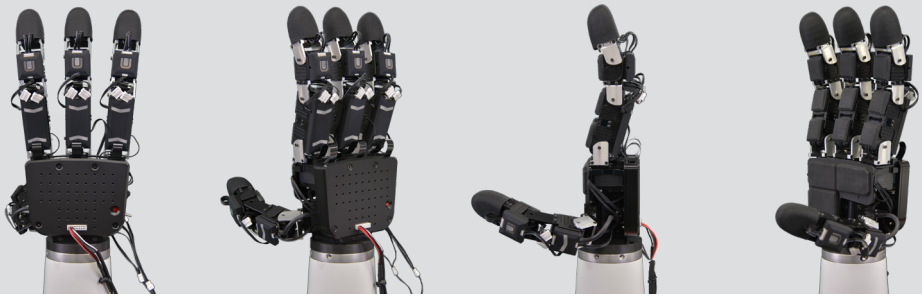
Lightweight and portable anthropomorphic design

Low-cost dexterous manipulation

Capable of handling a variety of object geometries

Capable of holding up to 5 kg

16 independent torque-controlled joints, 4 joints on each finger





DIGITAL OUTPUT

The digital output provides you with faster, more accurate measurements with minimal electric noise and interference.

In addition, due to the digital output, only 4 wires are required to collect all the tactile information.

SOFT & DURABLE

uSkin is a soft sensor capable of handling fragile objects without damaging them. Objects of different size, shape, hardness, and weight can be grasped and manipulated reliably.

The softness of uSkin also ensures that the sensor is highly resilient to overloading, making uSkin very durable.

WIRING

We have secured all the wires and microcontrollers and encapsulated them for protection.

Introducing Our Newest Model

We provide high-density 3-axis tactile sensing, making it possible to measure a 3-axis movement, providing you with a precise, sensitive, and overall more reliable tactile data collection.

Our newest uSkin model is: uSkin Curved.

This tactile sensor has 30 individual taxels that can measure 3D displacement individually. The soft, durable, and curved design allows for more natural interaction with the object.



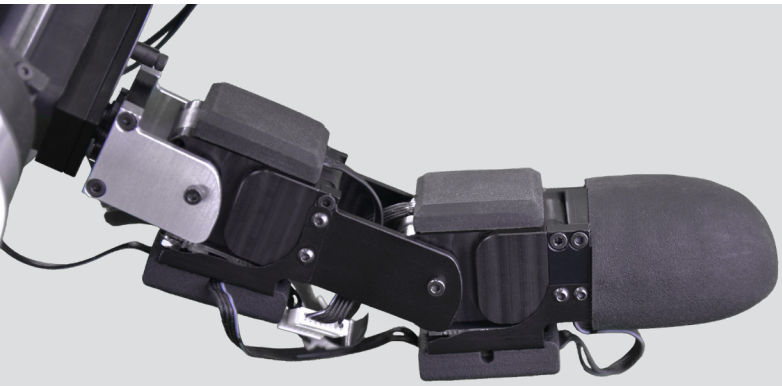
FEATURES

Type: Tri-axial Curved Tactile Sensor Module

Taxels: 30

Soft Skin

Fingertip Design



INTEGRATION SERVICE

The uSkin sensors can be integrated into both new and existing robots.

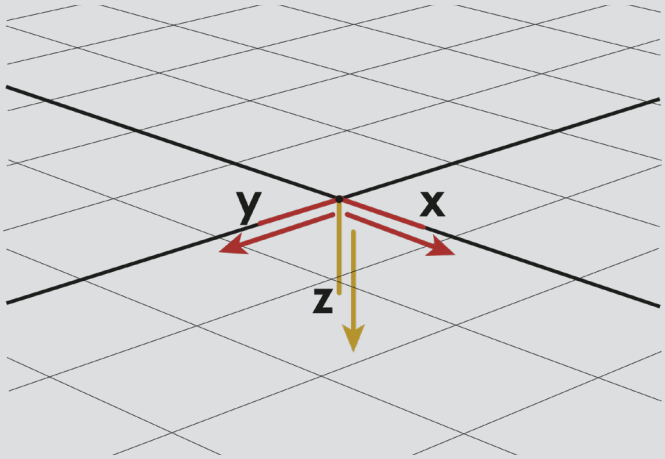
In addition to providing the tactile sensors, XELA Robotics also specializes in integrating them into various robot hand and gripper applications.

HIGH DENSITY 3-AXIS MEASUREMENTS

The taxels in each uSkin sensor mimic a joystick, measuring **X, Y** and **Z** force:

- Shear forces tangential to the surface
- Normal force perpendicular to the surface

Providing you with a more detailed and accurate data collection.



For more detailed information please visit our website at:
https://xelarobotics.com/en/uskin-sensor

About Us

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