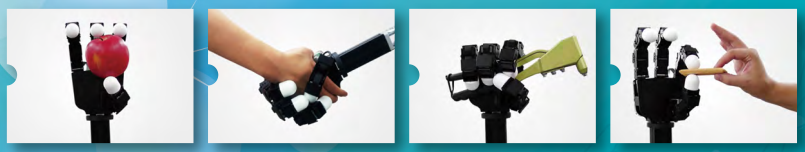
Allegro Hand

www.simlab.co.kr

A low-cost and highly adaptive robotic hand

With four fingers and sixteen independent torque-ontrolled joints, it's the perfect platform for grasp and manipulation research and education.



Our Allegro Hand Wiki houses tutorials, technical information, a user forum and downloadable software and source code. Users can also use the wiki to store and share information about their Allegro Hand and related research. The wiki is your central source for any and all of the Allegro Hand information you may need.

Please visit our wiki at simlab.co.kr/wiki

Features

- Low-cost dexterous manipulation with applications in research and industry
- Lightweight and portable anthropomorphic design
- Multiple ready-to-use grasping algorithms capable of handling a variety of object geometries
- Capable of holding up to 5 kg
- 16 independent torque-controlled joints (4 fingers x 4)
- Allegro Hand Application Studio included for simulation-based algorithm prototyping and hardware testing
- Support for real-time control and online simulation

Specifications

Number of Fingers	Four(4) fingers including thumb	
Degrees of Freedom	4 fingers x 4 =16	
Actuation	Type Gear Ratio Torque (max)	Brushed DC 1:369 0.7 Nm
Mass	Finger Thumb Total	0.15 kg 0.21 kg 1.09 kg
Joint Encoders	Absolute (potentiometer)	
Communication	CAN (333 Hz)	
Payload	5 kg	
Power Required	7.4 VDC (7.0 V - 8.1 V), 5 A	
Supported OS	Windows, Linux (ROS)	

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Purchasing Options

Included

- Allegro Hand (left or right)
- Allegro Hand Application Studio (AHAS)
- AHAS single-user license
- CAN/Power cable
- Tools
- Spare screws and wire terminals

Optional

- Hard plastic case
- CAN interface
- Power supply
- Sensors

For purchasing info, please contact [info@simlab.co.kr]

System Requirements

CPU	Intel® Core2 Duo or higher
RAM	2GB or more
HDD	2GB free space or more
Graphics	OpenGL HW Acceleration enabled
	64MB of video RAM or higher
OS	MS Windows® XP, 7 & 8 Linux (ROS)
CAN Interface	Softing / ESD / NI / Kvaser / Peak **Note :** Any CAN interface can be user-configured for use with the Allegro Hand.
Other S/W	**Windows :** Visual Studio® (optional) RoboticsLab (optional)
	Linux : ROS

Sensor Options

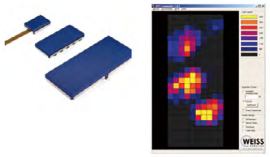
syntouch

BioTac Sensor Kit for Allegro Hand

Features
- Multimodal tactile sensing
- Can be used to develop intelligent reflexes
- Simple installation

System Contents
- 4 BioTacs
- 4 Allegro Hand adapters
- Cables
- 4 Test Cores
- BioTac maintenance kit
- Development kit

WEISS ROBOTICS

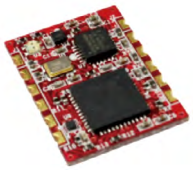


Tactile Sensors for Allegro Hand

Advantages
- Compact design without any extra components
- Direct connection to a control computer possible
- High sensitivity and dynamics
- Low crosstalk

Areas of application
- Reactive gripping
- Tactile exploration
- Test and measurement
- Service robotics and human-machine interaction

ITHROBOT



IMU for Allegro Hand

myAHRS

myAHRS is a sensor module which provides Attitude & Heading Reference in 3-D space.

Features
- High speed data interface : UART/USB(100Hz), I2C(1kHz)
- Heading range : -180° ~ 180° (magnetic north base)
- Roll range : -180° ~ 180°
- Pitch range : -90° ~ 90°
- Easy to calibrate and update firmware
- Includes software for data visualization

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