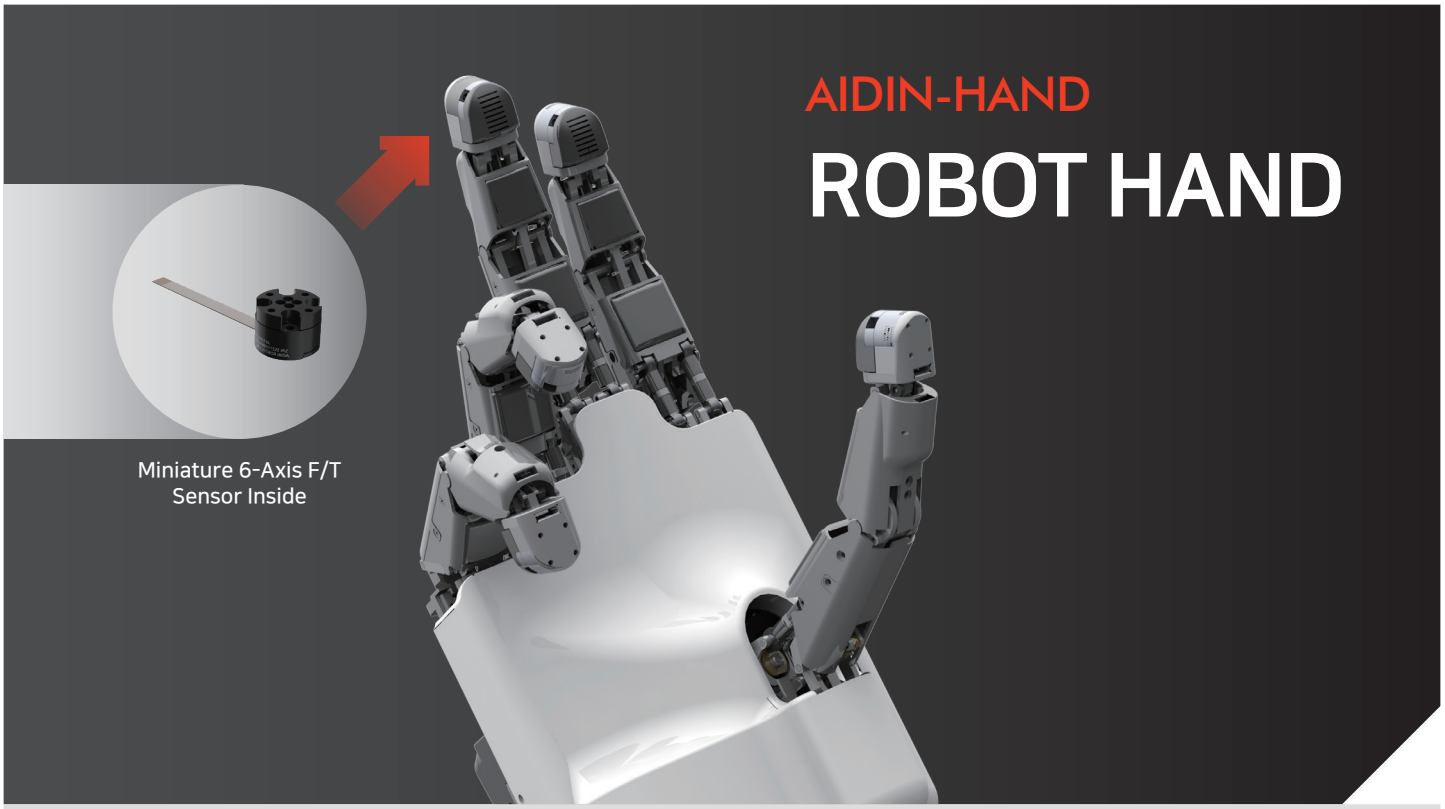


AIDIN-HAND
ROBOT HAND

AIDIN ROBOTICS' self-developed robot hand is equipped with Miniature 6-axis F/T sensors (AFT20/50) at each fingertip. This enables precise and delicate grasping operations that are difficult to achieve with conventional grippers, supporting more refined and versatile object handling.
(*This product is available as a research and R&D platform only.)

Key Features

- Equipped with Miniature 6-axis F/T sensors at all five fingertips, enabling precise and delicate handling for various tasks.
- Supports reliable manipulation of diverse objects through appropriate grasp types (power, tripod, pinch) using F/T sensor-based motion control.
- All motors and electronics are fully integrated into the hand structure.
- Designed with a link-driven mechanism for high control precision and efficiency.
- Possible to utilize AI imitation learning (Tele-Operation) linked with gloves.

Application

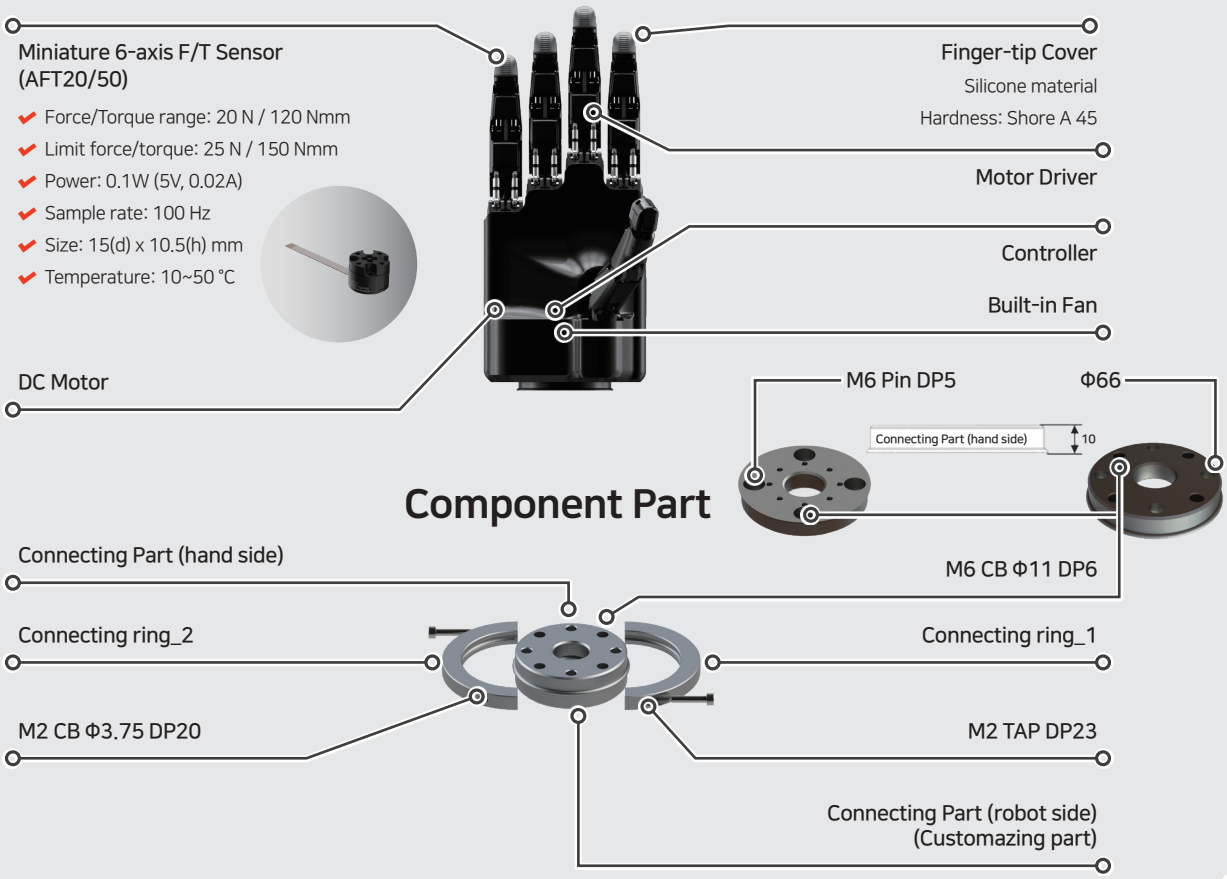
- Industrial / Collaborative robot
- Warehouse picking robot
- Home-service robot
- Prosthetic hand

YouTube

Specifications

Index	Unit	Value
Grasping mode	Mode	Power Mode (cylindrical, spherical, etc) Precision Mode (pinch, tripod, etc)
Degree of Freedom (Finger)	DoF	3
Degree of Freedom (Hand)	DoF	15
Finger-tip force	N	20 or 50
Payload	kg	15
Size	mm	291 x 112 x 120
Weight	kg	1.3
Finger-tip sensor	EA	5 (Miniature 6-axis F/T Sensor, AFT20-D15)

Hardware Components of AIDIN-HAND



Control System Overview

API Coverage

- API type: Control command interface based on ROS communication messages (C++ structure)
- API commands:
  Initialization commands (homing mode, teaching mode, sensor initialization mode, current limit setting, etc.)
  Motion commands (basic grasp mode, joint and Cartesian position control mode, current control mode, etc.)

Operating & Support environment

- Ubuntu 18.04 with ROS1 Melodic version
- Ubuntu 20.04 with ROS2 Foxy version
- Control command cycle: 1 kHz (real-time control based on Xenomai)

Product Homepage Contact Us

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