



IH2 Azzurra Hand

Intrinsic robotic hand with all functional components (5 motors, tactile sensors and control electronics) integrated in the palm and in the underactuated, self-adaptive fingers. Able to perform multiple grasps and sense objects. Simple communication interface (RS-232 over USB or Bluetooth). Standard prosthetic wrist attachments available (compatible with Ottobock QWD). The compact size of these hands allows using them in **research, evaluation and clinical experience** with humans in real daily living environments on human-machine interfaces (either invasive or non-invasive) and control (EMG, ENG, EEG, sensory feedback systems, etc). Not only! Due to their light weight and anthropomorphism they are suitable as **robotic end-effectors** on limited pay-load robotic arms.

Key Features

- Embedded force sensors
- Compliant grasp: adapts to object shape
- Light weight: 640 g only!
- RS-232 (over USB) and Bluetooth communication
- Fast (1 kHz) internal control loops: current, position, force

Possible Applications

- Human-Robot Interaction
- Artificial Intelligence
- Neuroscience and Prosthetics
- Grasping, Manipulation and Haptics



Access information

Corresponding infrastructure	School of Advanced Studies Sant'Anna The BioRobotics Institute
Location	Viale Rinaldo Piaggio, 34 56025 Pontedera PI, Italy
Unit of access	Working day

Technical specifications

Power supply	9V@5A peak
Weight	640 g
Grip force (tendon force)	30 N
Full fingers flexion speed	~1 s
Quick disconnect wrist available on request	
DoA	5
Interface	RS232/USB



Additional information

<https://www.prensilia.com/wp-content/uploads/support/doc/DS-IH2-v02.pdf>