



## 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



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## Access information

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

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## Technical specifications

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



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## Additional information

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