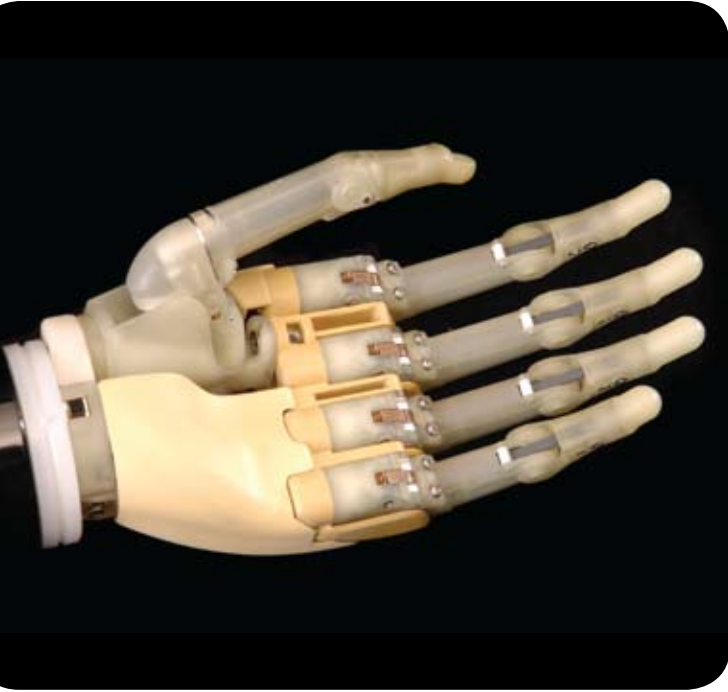


I-LIMB HAND DESIGN FEATURES



Built upon more than 35 years of advanced biomechanical engineering design and technological innovations, the i-LIMB Hand manufactured by Touch Bionics, features ground-breaking functionality not available in other myo-electric devices:

- **Anatomically Correct Hand with Five (5) fully-articulating powered digits** providing a firm, conformable grip on objects of varying shapes, thus reducing the potential for “premature releases” and the “mental effort” of hand control.
- **Human-like compliant grip** allows each independently motorized finger to tightly grasp varying shapes and replicate human prehension.
- **User Positioned, Rotatable Thumb** allows multiple positions to maximize grip options and increase manual dexterity.
- **Compatibility with Existing Arms** utilizing traditional interfaces, allows long term myoelectric users the potential to upgrade to an i-LIMB hand.

The i-LIMB hand is effectively a chassis for five self-contained, individually powered fingers or ProDigits™.

- **Modular Design** enables individual ProDigit™ substitution, significantly increasing operational availability as compared to other myoelectric hands.
- **Anatomical Accuracy** provides a significant psychological benefit to patients.
- **Stall Detection** embedded into each finger (via controller) to ensure correct force applied, without excess
- **Non-backdriveable fingers** (e.g. hook grip for carrying) assures once a grip has been achieved, it will remain in place until an alternative signal is applied, lessening chance for “premature release” or slippage.
- **Rapid Patient Assimilation** means as little as one-day training for existing users, with increased potential to advance existing skill base with additional occupational therapy
- **Less body posture compensation** translates into longer wear times with greater comfort
- **Return to higher level patient functionality**
- **Reduced maintenance and downtime** –interchangeable fingers and modular assembly allow fast turn-around of components with limited clinic time to effect repair

The i-LIMB hand utilizes sophisticated electronic control systems and configurable myoelectric strategies to ensure correct, optimal operation at all times. A traditional myoelectric system control strategy is employed, utilizing proportional control via two electrodes or FSR input for open and close respectively. Thus the i-LIMB hand can interface with many other myoelectric devices. This capability allows the amputee and the practitioner to evaluate the i-LIMB functionality in his/her office using an existing socket.

Input Sensor Choice

The i-LIMB hand can be used with the following EMG electrodes, in any combination, based on individual patient requirements:

- Touch Bionics Touch Pads
- LTI Remote Electrodes
- LTI Linear Transducer LT01
- Motion Control Pro Control 2 PreAmps
- Motion Control Snap Electrodes
- Motion Control Touch Pads
- Motion Control Linear Potentiometer
- Motion Control Force Sensor
- Otto Bock 13E200 =50/60 (depending on the geographic location)
- Otto Bock Linear Transducer

i-LIMB Technical Specifications

- **Application:** Amputations at or above wrist disarticulation for mild to medium level adults
- **Proportional Speed:** 200 mm/sec
- **Opening Width:** 135 mm
- **Overall Carrying Weight Limit:** 44 lbs
- **Voltage:** 7.4V
- **Weight of Hand:** Small =507g; Reg.=518g
- **Hand Size (Palmer Circumference):** Small measures 8" w/o i-LIMB skin & 8½" w/ i-LIMB Skin; Regular measures 8½" w/o i-LIMB skin & 8¾" with i-LIMB Skin
- **Power Source:** i-LIMB 2.4Ahr, 7.4V Lithium Ion battery pack
- **Charging Time:** 2-4 hrs/day; use i-LIMB Powerpack Charger only
- **Warranty:** 1 year limited warranty
- **Not designed for underwater use**

For course information, email us at iLIMB@spsco.com or contact your SPS Sales Representative

Powered Arm System Compatibility

The i-LIMB hand can be used with the following arm systems with full warranty coverage:

- Otto Bock Ergo Arm
- Boston Arm
- Motion Control U3
- Motion Control U3+

Wrist Rotator Compatibility

The i-LIMB hand can be used with the following wrist rotators:

- Otto Bock 13E195
- Otto Bock 13E205
- Otto Bock 10S17
- Integrated into U3 and U3+

Protective Covering Options

The i-LIMB hand must be covered by a glove at all times to protect the mechanical and electrical elements from dust & moisture. The following options are available from SPS:

- **Touch Bionics i-LIMB Skin** is a semi-transparent covering available in black or natural which is computer-modeled to wrap around every contour of the hand. One skin ships with each hand and has a life expectancy of 1-2 mos., depending upon use.



- **High Definition Covering** designed specifically for the i-LIMB hand. The covering is hand painted, with realistic texturing and detail. It is available in 10 shades w/ 1 yr. Warranty.

