



2010~2012 Upper Limb Prosthesis

FUNCTIONAL
HAND

MYOELECTRICAL
HAND

COSMETIC
HAND



50 *since 1960*

Explore New Life

TEH LIN PROSTHETIC & ORTHOPAEDIC INC.



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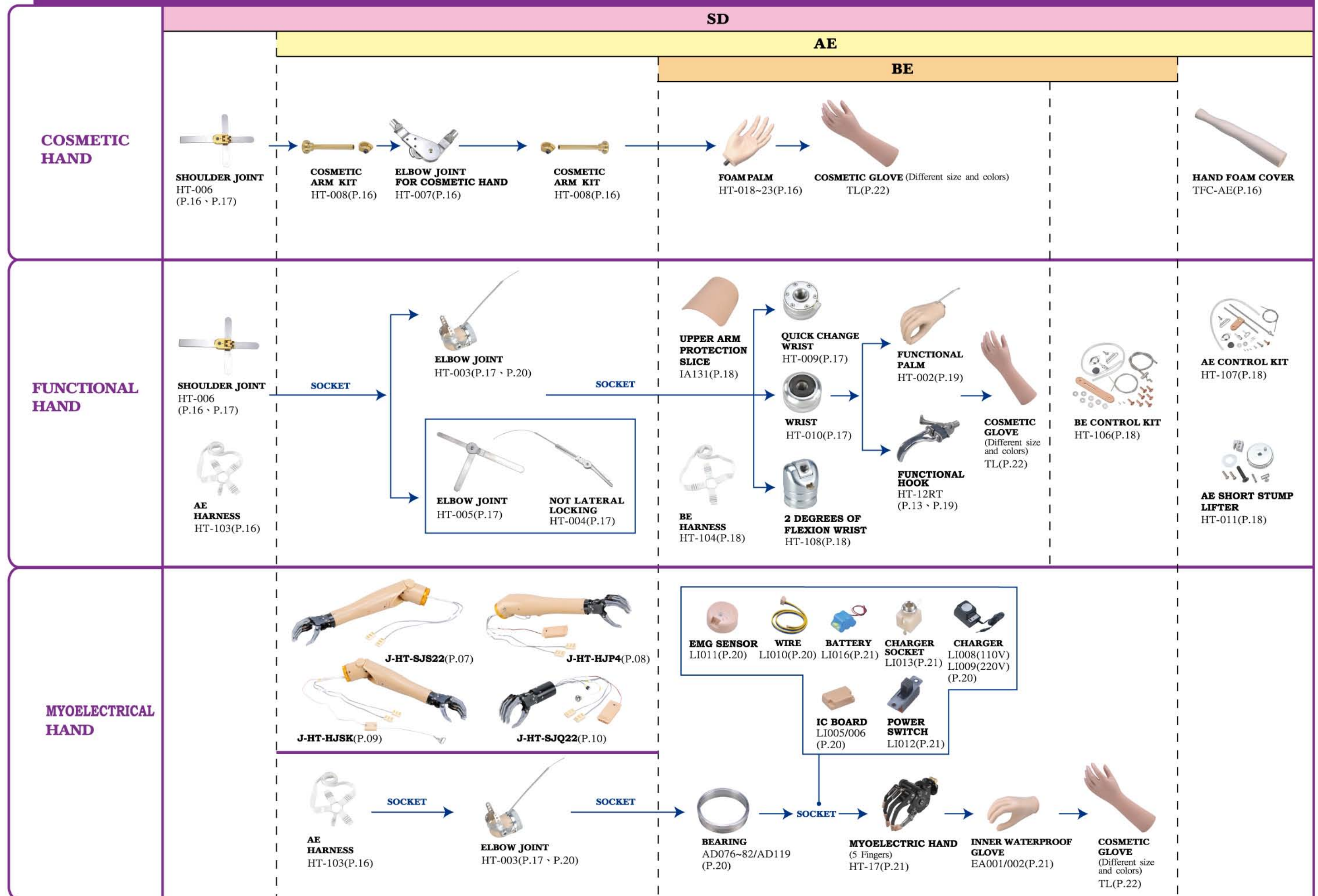
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SYSTEM OVERVIEW



Company Introduction

TEH LIN

Founded in 1960 by Mr. Kuen Lin Chen in Taiwan, Teh Lin is now one of the leading companies in the international market of prosthesis and orthosis. Possessing 50 years of experience makes Teh Lin an excellent partner for every amputee. Teh Lin now distributes its products in over 40 countries around the globe and is still growing in order to help more people who are in need. In Teh Lin, we enable the disabled.



Chairman
Tony S.H. Chen



General Manager
Brian J.Y. Chen



● National Award of Outstanding Small and Medium Enterprises



ISO13485 GMP CE FDA



With the professional technical and R&D team as well as fine instruments, Teh Lin Pros. & Ortho. has developed its unique Teh Lin System Prosthesis. It has passed the examination held by Ministry of Health (Taiwan), Labour and Welfare (Japan), The Berlin Conference (Germany), and was awarded in 1993 the National Award of Outstanding Small and Medium Enterprises. Teh Lin also acquired the first GMP Certification of Medical Device in Taiwan, international Gold medal prize of invention and holds international patents.

Service

- Research & Development.
- International fitting service and consultant.
- Administration consultant.
- Education for professional prosthetists and orthotists.
- Distribution of the state-of-the-art products in greater China zone.
- Purchase and resell of other artificial devices for disabled personnel.



Myoelectrical Hand

The human hand can sufficiently express the way our brain's order. For us, our hands differentiate us from other mammals and primates. For upper limb amputees, they lost the previously functional hand or arm, thus they also lost the communicational tool of upper limbs.

As the technology advances, the old fashion upper limb prosthesis such as Utility Hook、Utility Hand、Cosmetic Hand、Work Arm are now being slowly replaced by myoelectrical controlled hand. This myo-hand can control the movement of fingers, wrists and elbows all through myoelectricity. Teh Lin has now invented its own myoelectrical hand. The J-HT-SJQ22 Forearm Myo-Hand with 2 degrees of freedom、J-HT-HJSK Myo-Hand with mechanical lock、J-HT-HJP4 Myo-Hand with passive movement and J-HT-SJS22 upper limb Myo-Hand with 2 degrees of freedom. All these different types of products are there for users to choose, in order to best fit them.

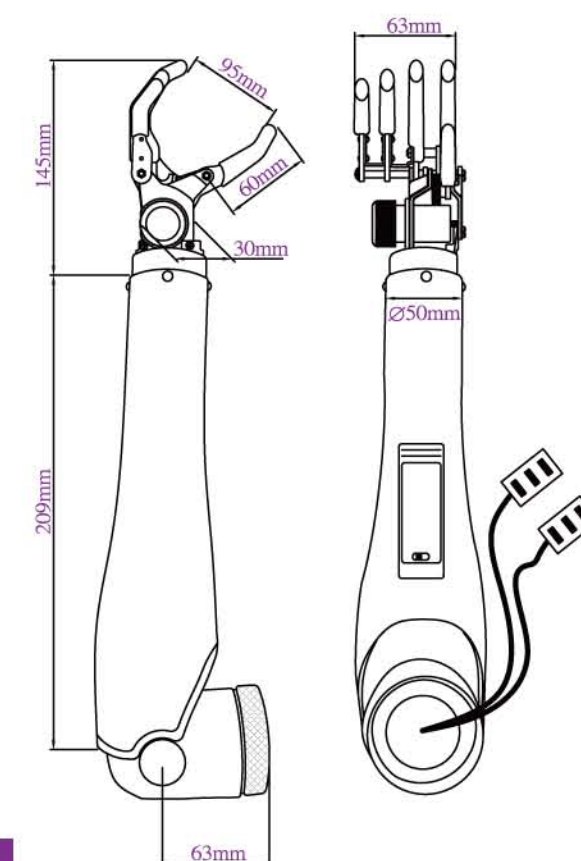


J-HT-SJS22 Myoelectrical upper arm prosthesis with 2 degrees of freedom for forearm.



J-HT-SJS22 is a myoelectrical arm suitable for long stump user. The fingers are controlled myoelectrically, the wrists are controlled passively through mechanical rotation switch and the elbows are controlled myoelectrically for flexion and extension, in order to assist our user for high demanding movements such as grasping items while doing pronation or supination.

1. Indication: Above Elbow Amputee
2. Myoelectrically control of fingers: 95mm
3. Passive mechanical wrist rotation 0°~180°~360°
4. Myoelectrically controlled elbow flexion and extension 0°~120°



J-HT-SJS22	
Material	Aluminum alloy & Plastic
Weight(±15)	1005g
Side	Left / Right
Grip force	5Kg
Finger pinches strength(±1)	30N
Battery life	Li-Battery 063048(AType)/Capacity: 850mAH/ Voltage : DC 7.4V/Max Current:2.8A
Voltage	INPUT:AC 100-240V 50-60Hz / OUTPUT:DC 12V
Indication	Above Elbow amputee with short / middle / long stump

Accessories

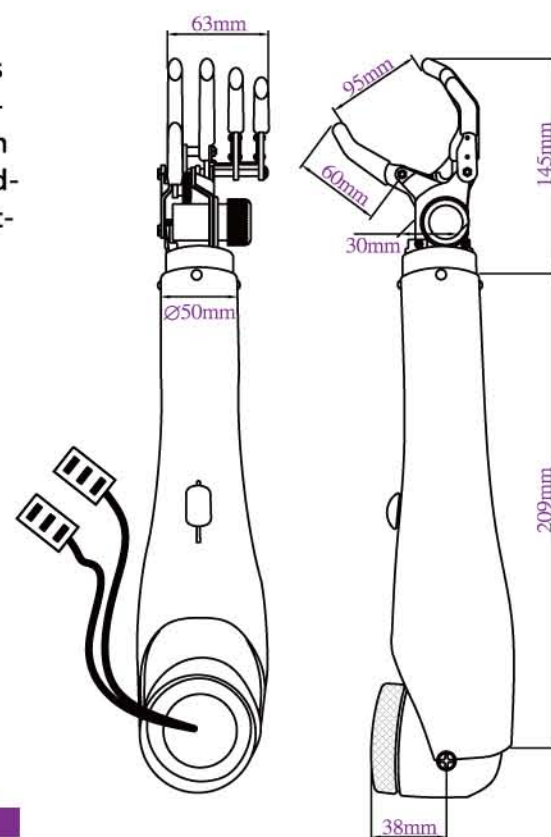


J-HT-HJP4 Myoelectrical & Passive control Hybrid arm prosthesis J-HT-HJP4



J-HT-HJP4 is a myoelectrical arm suitable for long stump user. The fingers are controlled myoelectrically, the wrists are controlled passively through mechanical rotation switch and the elbows are controlled mechanically for flexion and extension, in order to assist our user for high demanding movement such as grasping items while doing pronation or supination.

1. Indication: Above Elbow amputee
2. Myoelectrical control of fingers: 95mm
3. Passive mechanical wrist rotation $0^{\circ} \sim 180^{\circ} \sim 360^{\circ}$
4. Mechanically controlled elbow flexion and extension $0^{\circ} \sim 120^{\circ}$

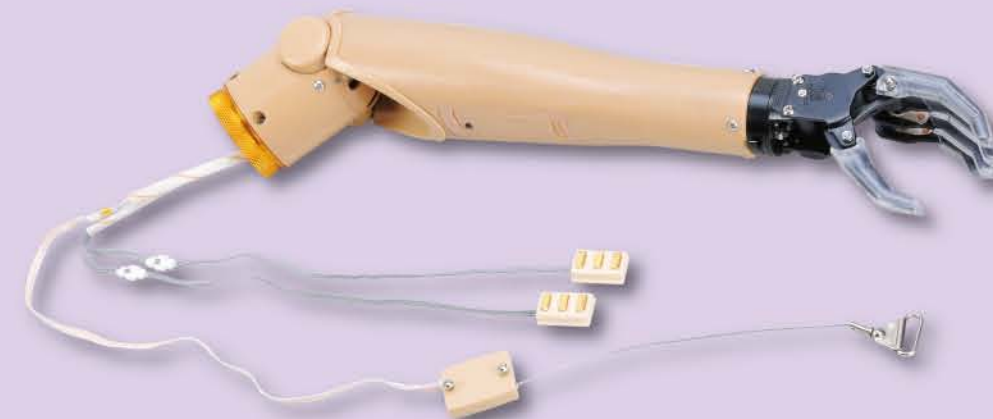


Accessories



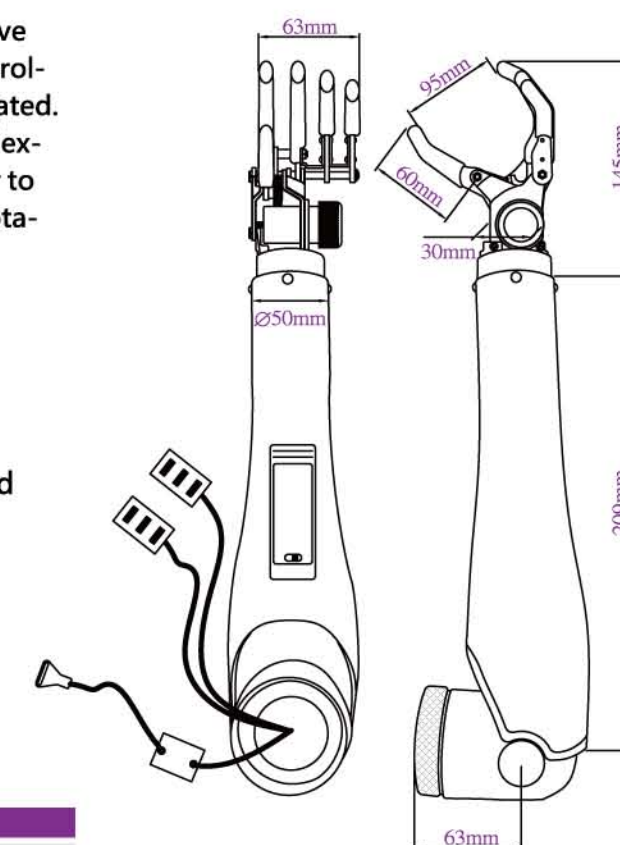
J-HT-HJP4	
Material	Aluminum alloy & Plastic
Weight(± 15)	730g
Side	Left / Right
Grip force	5Kg
Finger pinches strength(± 1)	30N
Battery life	Li-Battery 352751(BType)/Capacity:550mAh/ Voltage : DC 7.4V/Max Current:2.8A
Voltage	INPUT:AC 100-240V 50-60Hz / OUTPUT:DC 12V
Indication	A built-in battery is optional if needed. New generation type B hand is optional

J-HT-HJSK Myoelectric & cable controlled Hybrid arm prosthesis



J-HT-HJSK is a myoelectrical arm for long stump above elbow amputee. The opposition of the fingers is controlled myoelectrically and the wrist can be passively rotated. Combine with a mechanical pull-lock to control the flexion/extension of the elbow, this hand assists the user to achieve difficult movement such as grasping while rotating the wrist joint.

1. Indication: Above Elbow amputee
2. Myoelectrically controlled finger opposition
3. Passive wrist joint rotation
4. Electrical lock and control of elbow flexion and extension. ($0^{\circ} \sim 120^{\circ}$)



Accessories



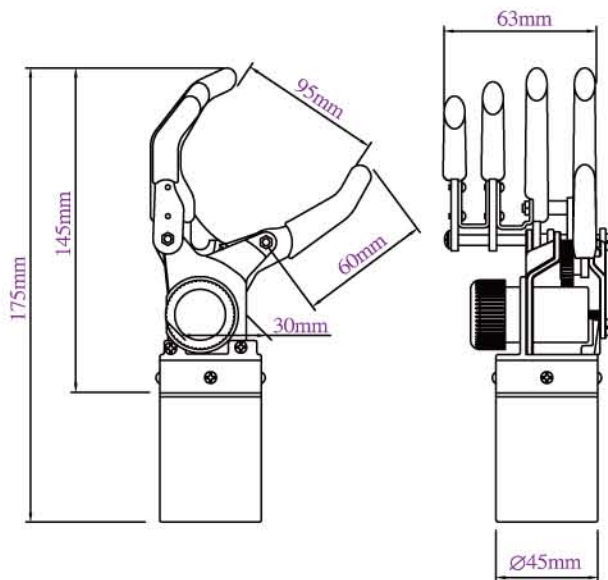
J-HT-HJSK	
Material	Aluminum alloy & Plastic
Weight(± 15)	1050g
Side	Left / Right
Grip force	5Kg
Finger pinches strength(± 1)	30N
Battery life	Li-Battery 063048(AType)/Capacity:850mAh/ Voltage : DC 7.4V/Max Current:2.8A
Voltage	INPUT:AC 100-240V 50-60Hz / OUTPUT:DC 12V
Indication	Suitable for middle, short and long stumps of upper arm.

J-HT-SJQ22 Myoelectric arm prosthesis with 2 degrees of freedom for forearm (rotating wrist)



J-HT-SJQ22 is a myoelectrical forearm-hand with 2 degrees of freedom controlled by myoelectricity. The main function is finger opposition and wrist pronation/supination. Through these functions, the user can be assisted in daily activity such as writing, holding a cup of water, grasp items from the desk.

1. Indication: Above Elbow/Below Elbow amputee
2. Myoelectrical control of fingers: 95mm
3. Myoelectiral control of wrist rotation 0°~180°~360°



J-HT-SJQ22	
Material	Aluminum alloy & Plastic
Weight(±15)	440g
Side	Left / Right
Grip force	5Kg
Finger pinches strength(±1)	30N
Battery life	Li-Battery 352751(BType)/Capacity: 550mAH/ Voltage : DC 7.4V/Max Current:2.8A
Voltage	INPUT:AC 100-240V 50-60Hz / OUTPUT:DC 12V
Indication	Suitable for short stumps of forearm.

Accessories



Teh Lin’s electrical hands can assitst our user in enormous ways during daily activities such as holding a cup of coffee or do the gardening.





Functional Hand-Functional Hook

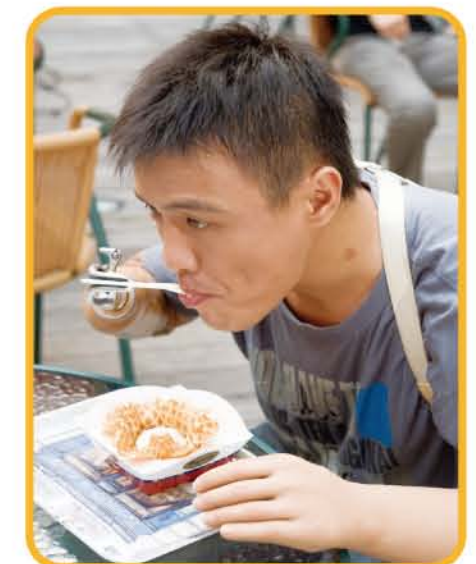
Upper limb prosthesis can be categorized in 2 major types : the Active type and the Passive type. The Passive type as its name is controlled passively for elbow and wrist joint movement such as: the Cosmetic Hand. The active type is based on the active movement of the user or from other power source. For example: Functional hook is one of the classic active controlled prosthesis, the power generates from the mechanics of the shoulder suspension system and the shoulder movement. The hook's open-grasp is controlled by 2~3 parts. HT-12RT functional hook ease the difficulty of doing functional movements and therefore benefits the user's daily life.

FUNCTIONAL HOOK



HT-12RT generates its movement through mechanical system to control the open-close of the hook. The stump movement and the suspension system contribute the motion and hook-closing for functional movement such as: writing, holding a cup and pick up things.

1. Indication: Above Elbow amputee
2. Active shoulder suspension control system
3. Mechanical hook
4. Mechanical wrist (rotation from 0°~180°~360°)



HT-12RT	
Material	Stainless steel & Aluminum alloy & Rubber
Weight(±5)	150g
Side	Left / Right
Application	Functional hand (Below Elbow,Above Elbow)

Explore New Life

At the age of 27,
he became an amputee due
to accident in work.

But he is still positive and
looking forward to everyday
life.



COMPONENTS OF COSMETIC HAND



SHOULDER JOINT

HT-006	
Material	Stainless steel & Aluminum alloy
Weight(±5)	225g
Application	Cosmetic hand (SD), Functional hand (SD)



ELBOW JOINT FOR COSMETIC HAND

HT-007	
Material	Stainless steel & Aluminum alloy
Weight(±5)	142g
Application	Cosmetic hand (AE,SD)



COSMETIC ARM KIT

HT-008	
Material	Aluminum alloy
Weight(±5)	177g
Application	Cosmetic hand (AE,SD)



AE HARNESS

HT-103	
Material	Cotton & Stainless steel
Weight(±5)	90g
Side	Left / Right
Application	Cosmetic hand (AE,SD), Functional hand (AE,SD), Myoelectrical hand (AE)



FOAM PALM

HT-018/019/020/021/022/023	
Material	PU
Size	18~23
Side	Left / Right
Application	Cosmetic hand (BE,AE,SD)



HAND FOAM COVER

TFC-AE	
Material	PU
Weight(±5)	435g
Application	Cosmetic hand (AE,SD)

COMPONENTS OF FUNCTIONAL HAND



SHOULDER JOINT

HT-006	
Material	Stainless steel & Aluminum alloy
Weight(±5)	225g
Application	Cosmetic hand (SD), Functional hand (SD)



ELBOW JOINT

HT-003	
Material	Stainless steel & Aluminum alloy & Plastic
Size	S / L
Weight(±5)	353g(S) / 415g(L)
Application	Functional hand (AE,SD), Myoelectrical hand (AE)



ELBOW JOINT

HT-005	
Material	Stainless steel
Weight(±5)	130g
Application	Functional hand (AE,SD)



MEDIAL LOCKING

HT-004	
Material	Stainless steel & Aluminum alloy
Weight(±5)	156g
Side	Left / Right
Application	Functional hand (AE)



QUICK CHANGE WRIST

HT-009	
Material	Stainless steel & Aluminum alloy
Weight(±5)	106g
Application	Functional hand (BE,AE)



WRIST

HT-010	
Material	Aluminum alloy & Rubber
Size	S / L
Weight(±5)	60g(S) / 74g(L)
Application	Functional hand (BE,AE,SD)

COMPONENTS OF FUNCTIONAL HAND



AE SHORT STUMP LIFTER

HT-011	
Material	Aluminum alloy
Weight(±5)	48g
Side	Left / Right
Application	Functional hand (AE,SD)



2 DEGREES OF FLEXION WRIST

HT-108	
Material	Stainless steel & Aluminum alloy
Weight(±5)	202g
Application	Functional hand (AE)



BE CONTROL KIT

HT-106	
Application	Functional hand (BE)



AE CONTROL KIT

HT-107	
Application	Functional hand (AE)



BE HARNESS

HT-104	
Material	Cotton & Stainless steel
Weight(±5)	88g
Application	Functional hand (BE)



UPPER ARM PROTECTION SLICE

IA131	
Material	Plastic
Weight(±5)	29g
Application	Functional hand (BE)



FUNCTIONAL PALM

HT-002	
Material	Stainless steel & Aluminum alloy & Rubber
Size	S / L
Weight(±5)	273g(S) / 295g(L)
Side	Left / Right
Application	Functional hand (BE,AE,SD)



FUNCTIONAL HOOK

HT-12RT	
Material	Stainless steel & Aluminum alloy & Rubber
Weight(±5)	150g
Side	Left / Right
Application	Functional hand (BE,AE)

(HT-12RT please refer to P.12~P.13)

COMPONENTS OF MYOELECTRICAL HAND(HT-17)



ELBOW JOINT

HT-003	
Material	Stainless steel & Aluminum alloy & Plastic
Size	S / L
Weight(±5)	353g(S) / 415g(L)
Application	Functional hand (AE,SD),Myoelectrical hand (AE)



BEARING

AD076~082 / AD119	
Material	Stainless steel
Application	Myoelectrical hand (AE),Cosmetic hand (BE)

Item No.	Size	(mm)	
		internal ϕ	outside ϕ
AD076		59.0	69.0
AD077		63.0	73.0
AD078		66.0	75.5
AD079		69.0	79.0
AD080		70.5	82.0
AD081		74.5	85.0
AD082		78.5	89.0
AD119		51.0	61.0



IC BOARD

LI005(Six Terminal) / LI006(Five Terminal)	
Application	Myoelectrical hand (AE,BE)



CHARGER

LI008(110V) / LI009(220V)	
Specification	110V.60HZ / 220V.50HZ
Application	Myoelectrical hand (AE,BE)



WIRE

LI010	
Application	Myoelectrical hand (AE,BE)



EMG SENSOR

LI011	
Application	Myoelectrical hand (AE,BE)



POWER SWITCH

LI012	
Application	Myoelectrical hand (AE,BE)



CHARGER SOCKET

LI013	
Application	Myoelectrical hand (AE,BE)



BATTERY

LI016	
Specification	2/3AAx5/6V / 700m Ah
Application	Myoelectrical hand (AE,BE)



MYOELECTRIC HAND (5 Fingers)

HT-17	
Material	Stainless steel & Aluminum alloy
Size	M
Weight(±5)	315g
Side	Left / Right
Application	Myoelectrical hand (AE,BE)



INNER WATERPROOF GLOVE

EA001(Size:L) / EA002(Size:M)	
Material	Rubber
Weight(±5)	90g(M) / 100g(L)
Side	Left / Right
Application	Myoelectrical hand (AE,BE)

ACCESSORIES



PVA ISOLATION FOIL

NA1E0002	
Specitication	116cm(L)x50m(W)x0.065mm(T) 100m/roll



COSMETIC GLOVE (Different sizes and colors)

TL	
Material	Silicone
Application	Cosmetic hand (BE,AE,SD),Functional hand (BE,AE,SD),Myoelectrical hand (BE,AE)



INSTRUCTUCION

After evaluation by a professional Physical Therapist, the prosthesis should be custom made by the professional prosthetist or technician according to the condition of the patient.

Afterwards, a rehabilitation program must be applied in order to regain the best muscle activity and strength and range of motion of the joints. Furthermore, a professional occupational training should also be applied, which gives the patient the ability to return to normal society life.

Residual limb careness: A moderate cleanser should be applied daily on the residual limb. Under the suspension system, where the friction occurs, should be protected by clothes or by other methods. A comfortable sock should firstly applied on the residual limb as a protection in order to prevent friction occurs between the skin and the socket.

Care and Instruction for Upper Limb Prosthesis :

01. Avoid fall from higher ground.
02. Avoid storage in high temperature area and high humidity area.
03. Keep distance from heat and combustibile items.
04. Do not stock any foreign object into the prosthesis.
05. Avoid water contact.
06. Do not dissemble the prosthesis or add components.
07. Retrieve the battery once it is fully charged.
08. Do not fully discharge the battery.
09. Routinely check the battery capacity and to charge it.
10. After usage, use 75% of alcohol and 25% of water mixed solution to sterile the inner part of the socket.
11. Use wet towel to clean the outer part of the socket.
12. Do not use chemical solution to clean the socket. This avoid corrosion of the socket.
13. Use gentle surface to clean the product. This avoid physical damage of a scratch.
14. Caution with the electronics when cleaning.
15. If water contacts, use dry cloth to suck the water and then dry it in the shade. Do not use the dryer. After drying, it should be returned to manufacturer for full check and repair .

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