

# CASSINO LARM HAND – TECHNICAL SPECIFICATIONS



The LARM Hand is composed of three fingers whose design is aimed for an anthropomorphic behaviour. In particular, a human-like grasping is obtained by each finger with 1 d.o.f. (degree of freedom) motion by using a suitable mechanism whose design has been obtained through cross four-bar linkages to be fitted in the finger body. The design compactness is useful to achieve a suitable stiffness at grasp too. The current low-cost solution can be completed with force sensors on phalanx surfaces and palm area that have been designed with a suitable surface configurations. Consequently the grasp can be regulated through a simple control using those force sensor signals and an industrial small PLC for an easy programming. The LARM Hand can be used as a grasping end-effector in robots and automatic systems, and even it has a potential feasibility as biomechanical prosthesis, once suitable adjustments are made.

Low-cost easy-operation three-finger Cassino LARM Hand

## General characteristics

- Total fingers: 3
- Joints per finger: 3
- Actuator per finger: 1
- Total hand actuators: 3

## Range of Motion

- Finger input joint: 40 deg
- Fingertip link: 140 deg

## Finger Speed

- Finger fully open to fully closed: 2.0 sec

## Force Sensing

- Sensors on palm: 1
- Sensor type: force sensing resistor
- Force sensitivity: 1 to 100 N
- Force resolution: >0.5% full scale
- Lifetime: >10 million actuations

## Motor Type

- 24V permanent magnet DC motors

## Power Supply

- Typical 15V DC power supply
- Max required power: 300 W

## Control System & Software

- Mini PLC Logo
- Siemens Logosoft Comfort

## Dimensions

- Finger: 1:1 human finger size
- Hand: 110x240x120 mm

## Size of Grasped objects

- 10-100 mm

## Weight

- Hand: 15 N
- Payload: 5 N

## Robot Arm Adapter

- The hand can be connected to standard flanges of robots

## QUOTE

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## DELIVERY

Two months from the order

## CORRESPONDING ADDRESS

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