

ABOVE ELBOW MYO-ELECTRIC ARM



Brief Description

The technology is related to the persons with disability at above the elbow. It can be fitted to any person who lost his hand in any accident subject to his residue muscles are still active.

Above Elbow Myo-electric arm consists of gripping fingers, palm, wrist and elbow joint of upper limb. The arm further has two DC motor one for hand movement, another for the movement of the elbow joint.

EMG sensors are there to pick up Myo-electric signals from the stump, circuitry to process and condition the signals to perform the opening and closing of hand and Micro-switch/wireless switch for elbow flexor and extension. Finally a case in which the entire setup is placed to provide a cosmetic appeal.

Specifications

- Operating Voltage : 12 V (Composite voltage to operate both hand and elbow)
- Current Consumption : 250 mA at no grip, 750 mA at 2 Kg load (Palm)
: 190mA at no load & 870mA at 2 Kg load (Elbow)
- Palm opening Width : 75-100 mm (Max)
- Palm average Speed : 3-4 cm/sec (approx.)
- Elbow rotation angle : 0-145° (Max)
- Elbow operating speed : 45° per second
- Max. Weight to be grasped : 2 Kg
- Weight of the arm : 2.2 Kg
- Operation : By EMG signal (Palm)
By electronic push button Switch (Elbow Joint)

Features

- Micro-controller Based Palm operation & Switch controlled Elbow movement with fixed speed
- Intelligent prosthesis with variable hand speed setting according to user preference
- Consistent Speed and self-Locking Elbow using Lead Screw mechanism
- No back lash during work
- Light weight, simple in manufacturing and durable

Possible users

- Armed Forces
- Civilians
- Local Industry



For further details contact:

DIRECTOR

CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION

SECTOR 30C, CHANDIGARH-160030

Phone: +91-172-2657190, 265726

Fax: +91-172-2657267