What is NeoMano

Neomano is a wearable, soft robotic hand created by Neofect that enables and empowers people with hand paralysis to perform daily activities. It fits over the thumb, index, and middle finger while leaving the other fingers and part of the hand uncovered. With the use of Neomano, people with hand paralysis have the ability to move their fingers in order to perform daily activities like hold and drink a cup of water, brush their teeth, or turn a doorknob to open a door. It does this by providing active grasp to maintain grip, followed by passive release. Neomano helps people gain independence and confidence in performing everyday tasks.

Who can use NeoMano

The Neomano is helpful for people with movement in their wrist and arm but little to no strength in their hands. This includes people who suffer from hand paralysis due to spinal cord injury (SCI), stroke, Lou Gehrig's disease (ALS), multiple sclerosis, cerebral palsy and nerve injury. Please note that the range of product use may differ by the diagnosis and individual hand function. Learn more.

Why NeoMano

1. Perform Daily Tasks

NeoMano helps people regain function in their affected hand to perform everyday tasks.

2. Gain Confidence and Independence

NeoMano helps boost confidence by providing more independence.

3. Comfortable Design

NeoMano is made from flexible material that comfortably fits over the thumb, index and middle finger.

First, NeoMano allows people to do a variety of everyday tasks with a single device.

Daily tasks can be difficult for people that don't have full functionality from their hand, which is why many rely on assistive devices or caregivers. Neomano allows people to return to their daily-living activities and hobbies.

Second, with the wide-array of functional use, Neomano boosts confidence.

The grasp pattern provides the independence needed to perform tasks single-handedly, allowing people to move forward with their lives.

Third, the Neomano design is comfortable enough to be worn in multiple types of situations.

The partial glove design allows tactile sensory input to part of the palm and exposed fingers, and the leather allows for flexibility needed for everyday tasks. Neomano can be used by people both in the comfort of their own homes and in public.

Made for Supporting Grip and Grasp

- Users can grab a knife and exert force onto the utensil to cut food, such as fruits.
- Users can grab a fork to pick up food and have a meal.
- Users can grab a spoon to lift food and have a meal.
- If the wrist functions properly, Users can grab a water bottle to pour water into a cup. Users can hold a cup to drink water.

- Users can hold a bottle and open the lid.

- Users can grab a pen to write texts or a signature.

- Users can hold a cup and feed a dog.

- Users can hold a golf club to putt a golf ball.

- Users can hold a smart phone and take photos.

- Users can grab a medicine bottle and open a cap.

- Users can grab a leash and take for a walk.

- Users can hold a sprinkler and water the flowers.

Other Activities that Users Can Do with Neomano!

- Users can hold a toothbrush to brush their teeth.
- Users can hold a razor to shave.
- Users can hold a makeup brush to apply cosmetics.
- Users can hold a hair comb to brush their hair.

Expert Testimonials

Ulisses Jara-Manual, Rachel's Therapist

"When I first saw the Neomano device, I just immediately thought it would be helpful for somebody like Rachel. My hope with the glove is that she is going to eventually gain whole a lot more dexterity. Being able to pick up things with more ease is gonna be really significant. So now with this Neomano device, she can do more detail stuff with hands."

Kenneth Noto, Mark's Therapist.

"This (NeoMano) will help him and enable him to hold on the things and let go without him using that voluntary contraction that has become weak. That's really an in-aid to his disability."

Lauren Sheehan, Occupational Therapist

"It's been interesting because it's so individualized. We can't guess at what the patients would potentially be able to use the tool for. From very simple activities in daily living like eating, taking a top off of a container that they use, golfing, and using it for exercise. You know the activities that are fun. Again, we're bringing it to their lives."

THE GLOVE

Three fingers

+

Aluminium splint for the thumb

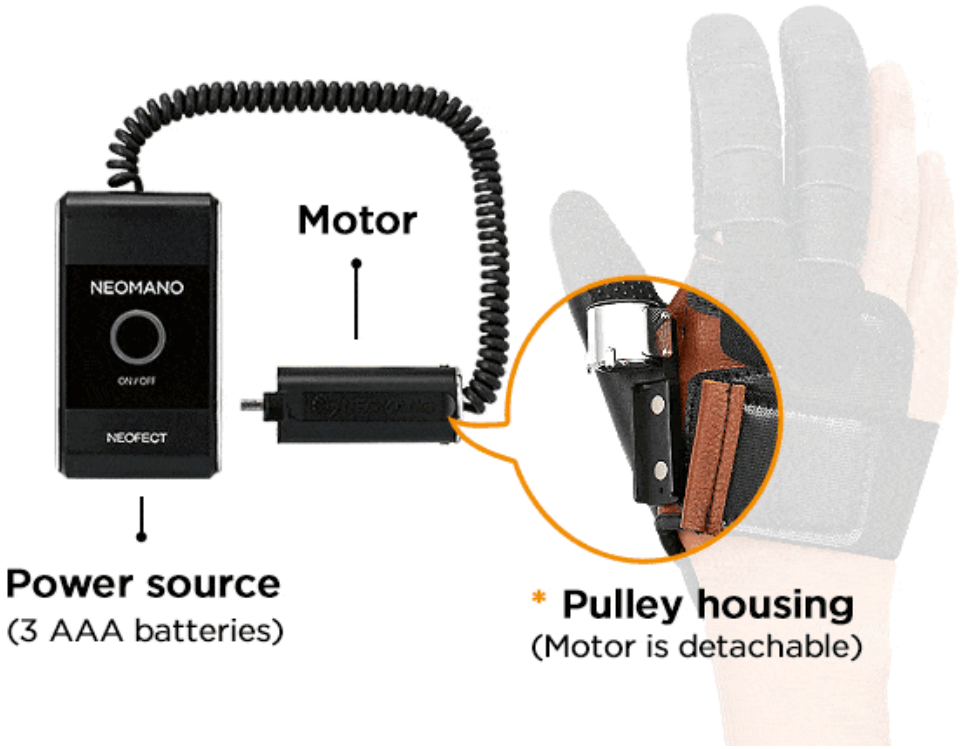
- **Three fingers + aluminium splint on the thumb to enable different degrees of gripping strength.**
  With the aluminium splint on the thumb, the position of the thumb can be easily manipulated. The index and middle finger can also be adjusted to form a C-shaped grip for larger objects, and a pinch grip for smaller objects. The motor allows the fingers to bend and provide various degrees of gripping strength, along with passive release.

- **Index finger assistive strap helps prevent ankylosis (stiffening).** The glove is equipped with an assistive strap, made of neoprene fabric, on the back of the index finger to adjust the degree of tension. This helps people who suffer from finger stiffening maintain a better hand position for functional use.

- **Anti-slip silicone coating on the palm + fingers.** The silicone coat on the palm and fingers helps provide a firmer grip on objects and prevents slipping.

- **Partial glove design.** The exposed fingers and palm were designed to provide tactile sensory input.

THE ACTUATOR



- **Actuation of the motor and pulley.**
  The Bluetooth wireless remote control (not pictured) enables the grip and release of the NeoMano, powered by 3 AAA batteries that hook into the glove via the motor. When activated, the Grip button flexes the fingers to provide a gripping gesture. The Release button loosens the wires, allowing the hand to return to its original neutral position. The wire is highly elastic, which helps maintain wire integrity despite repetitive winding and loosening.

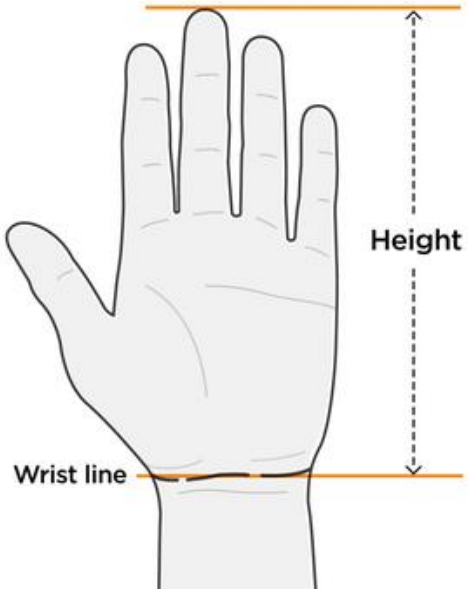
- **Magnets make motor attachment and detachment simple.**
  When the glove is not being used and powered by the motor, the motor can easily be detached by carefully pulling it away from the magnets on the glove. This allows people to easily transition from active to passive use of the glove.

- **Power source for pairing with Bluetooth remote control.**
  The power source has a button. The button will pair the Bluetooth remote control to the motor for wireless control of the glove.

THE REMOTE CONTROLLER

- **Wireless Bluetooth remote control directs movement of the glove**. The Grip button will activate the wires within the glove to begin to wind and will create a tighter grip the longer its held down. The Release button loosens the wires, which returns the hand to its original neutral position.

NeoMano Size Chart



Size	inch	cm
XS	6.3 - 6.7	16 - 17
S	6.7 - 7.1	17 - 18
M	7.1 - 7.5	18 - 19
L	7.5 - 7.9	19 - 20
XL	7.9 - 8.3	20 - 21

- **To find your size**: Please measure from the wrist line to the tip of your middle finger as shown above. Product size is very critical for proper function of NeoMano so please measure correctly.