

# MIA HAND

RESEARCHING FUTURE

## POWERFUL

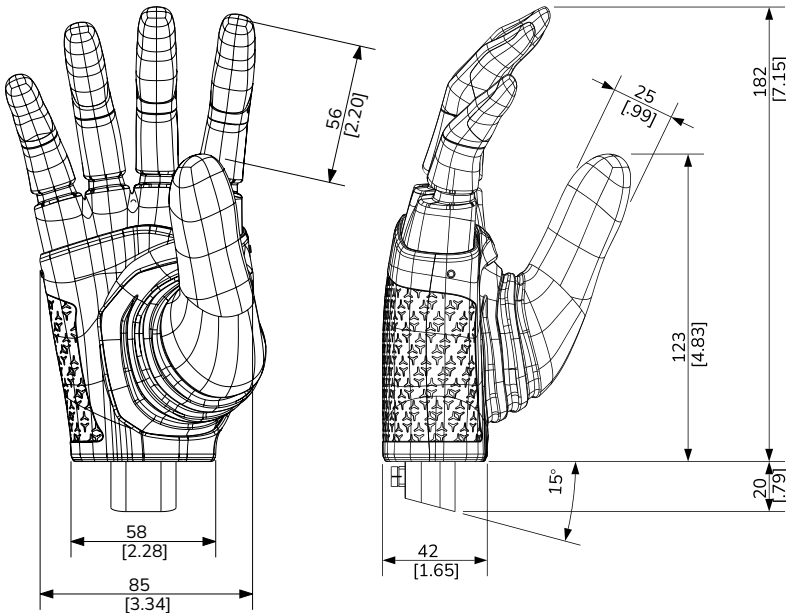
Up to 140 N grip force available in all grasping patterns.

## SMART

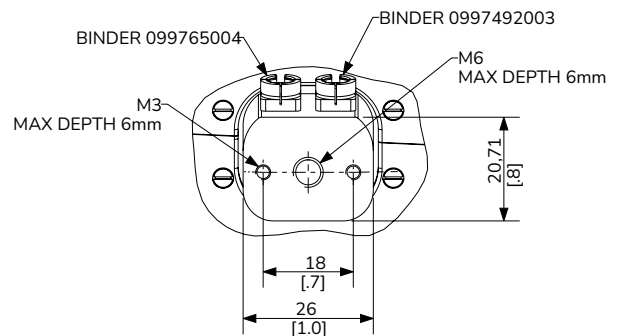
Embedded current, position and force\* sensors allow for a variety of closed-loop control behaviours.

## VERSATILE

Multi-grasp anthropomorphic gripper for multiple research scenarios: prosthetics, human-machine interfaces, collaborative robotics, social robotics, manufacturing. Integrated with ROS1 and ROS2.



CUSTOM FEATURES  
AVAILABLE ON REQUEST



Available with the mechanical interface of Mia Hand Industrial (ISO 9409-1-50-4-M6) and Mia Hand Prosthesis (EQD) too.

## MECHANICAL SPECIFICATIONS

Weight	520 g
Max size	140 × 135 × 190 mm
Max grasp force	44 to 140 N
Degrees of actuation/freedom	3/4
Closure time	0.4 s
Coupled fingers	Middle/Ring/Little
Maximum recommended payload for hanging grasp***	9 kg
Maximum recommended payload for friction grasp***	1 kg

## ELECTRICAL SPECIFICATIONS

Power requirements	From 9V @ 6A peak to 24V @ 2.5A peak
Communication	UART over USB

## CONTROL AND SENSORY SYSTEM

Embedded PID controllers	position, speed, force** (1 kHz)
Configurable pre-set grasps	5
Position sensors (digital): 3	0.1 deg
Motor current sensors (analog): 3	1 mA (10 bits)
Limit switches (digital): 6	-
Force sensors (analog)*: 3	~50 mN (10 bits)

\*force sensors on thumb, index and middle fingers available on request

\*\*force controller available soon

\*\*\*safety factor = 2