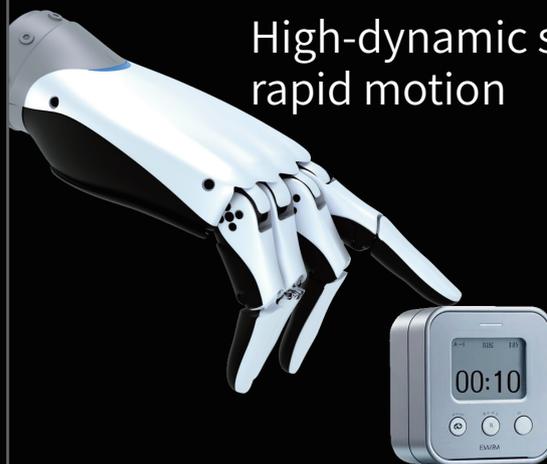ROBOTERA

Elfin Hand

XHAND1 - Lite

Human-hand size, sleek and slender design

High-dynamic speed, rapid motion

Back-Drive; fault tolerant, high success rate

Back-Drive; impact-resistant; high reliability

Weight	730 g		**Minimum Grasp Diameter**	12 mm
Dimensions (L×W×T)	209 mm x 84 mm x 32 mm (The Size of an Adult's Hand)		**Fingertip Load**	12 N
Active DoF (Total)	6		**Maximum Thumb Opposition**	Little Finger
Passive DoF (Total)	5		**Open/Close Repetition Speed**	>2 Hz
DoF Allocation	Thumb ×2 (+1), Index Finger ×1 (+1), Middle Finger ×1 (+1), Ring Finger ×1 (+1), Little Finger ×1 (+1)		**Damping (Backdrivable)**	≤0.1 Nm
Thumb Transmission	Linkage and 2 Micro Force-Controlled Composite Joints per Finger		**Communication Interface**	EtherCAT / RS485(USB) / CAN
Four-Finger Transmission	Linkage and Single Micro Force-Controlled Composite Joint per Finger		**Communication Rate**	EtherCAT：100 Mbps，RS485：3 Mbps
Fingertip Configuration	Round or Rounded Fingertips		**No-Load Grasp Cycles**	1,000,000 Cycles
Fingertip Repeat Positioning Accuracy	±0.20 mm		**Control Modes**	Position Control (Low Damping/High Damping Mode), Current-Loop Force Control