

Revo 3 Dexterous Hand

Born for Dexterity Built for the Future



21 DOF

Full Direct-Drive
High Back-Drivability

RS-485/CANfd/EtherCAT

Full Protocol Support

 **Plug-and-Play Demos**

 **Open-Source
Ecosystem**

21

Active DOFs

20_N

Fingertip Pinch Force

70_N

Palm Grasping Force

3_{Hz}

High-Speed Cycling

500_{Hz}

Control Frequency

0.01_N

Palm Tactile Resolution

130_{μm}

Min Detectable Visuo-
Tactile Deformation

12-80_v

Wide Input Voltage

Spec Sheet

*Parameters tested in laboratory environments. Actual performance may vary upon final delivery.

Category	Specifications	Revo 3 U21	Revo 3 U21T	Revo 3 U21VT
Degrees of Freedom (DOF)	Total DOFs	21 (Full Direct-Drive, Back-Drivable)		
	DOF Distribution	4 fingers x 4 DOFs, Thumb 5 DOFs		
Dimensions	Overall Dimensions	215x105x50mm		
Operating Specifications	Supply Voltage	12-80V		
	Max Current	10A(24V)		
	Active Grasping Force	>70N		
	Max Fingertip Pinch Force	>20N		
	Overall Payload	20kg		
	4-Finger Payload	5kg		
	Repeatability	0.1°		
	Closing Speed	3Hz		
Workspace	5-Finger Opposition	All fingers touchable to palm (Full Kapandji Score))		
	Min Grasping Diameter	10mm		
	Max Grasping Diameter	150mm		
Hardware Configuration	Communication Interfaces	EtherCAT / CANfd / RS-485		
	Communication Frequency	500 Hz		
	Sensors	IMU (Mainboard), Temperature (Mainboard)		
	Control Modes	Position / MIT Force-Position / Admittance / Zero-Torque		
Tactile Sensing	Tactile Sensors	/	Palm Array Tactile	Palm Array Tactile + Fingertip Visuo-Tactile
	Measurement Range	/	0-25N	0-25N
	Resolution	/	0.01N	0.01N
	Min Detectable Deformation	/	/	130 μm

