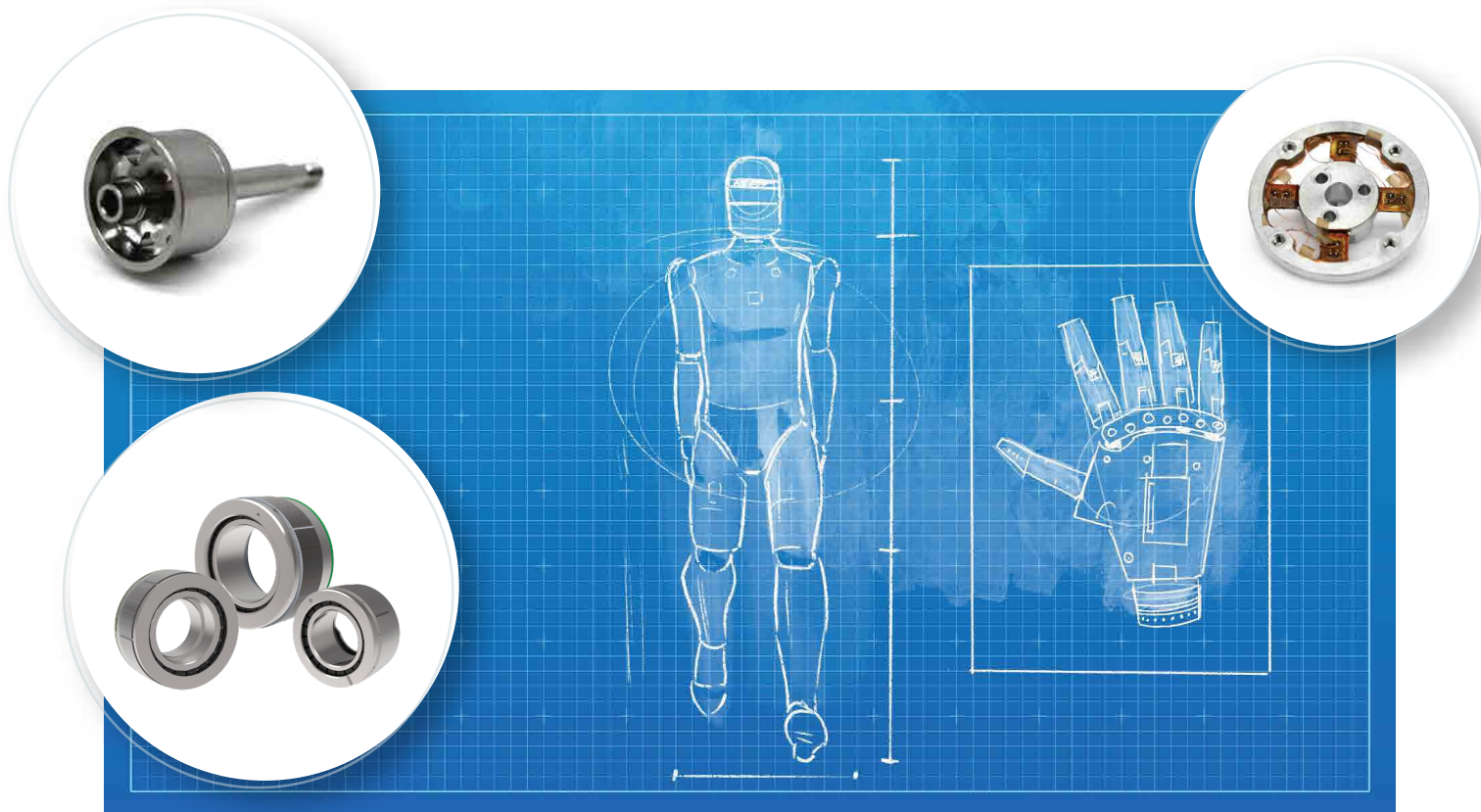


Our Products for

HUMANOID ROBOTS



MinebeaMitsumi offers a comprehensive range of products tailored for humanoid robotic applications. Our NMB-branded high-precision ball bearings are designed to minimize friction in joint mechanisms, ensuring efficient movement. We also provide frameless BLDC motor kits and integrated modules that deliver smooth and precise rotation.

To enhance task accuracy, agility, and safety, our force sensors play a critical role. For high-load applications, we utilize custom strain gauge designs, while our low-load sensors are built on advanced MEMS technology.

To explore our capabilities and product offerings in more detail, we invite you to connect with a member of our team today.

Our Products for **HUMANOID ROBOTS**

Product	Function
Frameless BLDC Motors	Actuators for all humanoid joints
Multi-axis Force Sensor	Multi-axis load measurement
Torque Sensor	Torque measurement within joints
Hybrid Motor with Magnetic Encoder	Precise motion control
Waterproof Connectors	Data and power transfer
Miniature Ball Bearings	Rotation of finger and wrist joints
Medium Thin Bearings	Reduces friction in mechanical mechanisms
MEMS 6-axis Force Sensor	Integrated solution for delicate touch tasks
Spindle Unit	LIDAR sensor rotation
Precision Motor Shaft	High load rotation of joints
DC Fans	Electronics cooling

Custom Joint Module

