



KEY PRODUCTS

- Charging connectors
- Battery Swapping connectors
- Wire-to-wire connectors
- Board-to-board connectors
- Wire-to-Board Connectors
- Industrial communication connectors
- Contactors
- EMI Filters
- Chokes
- Power & signal relays
- Sensors

Contact Information

www.te.com

FUTURE OF HUMANOID ROBOT

The humanoid robot market is gaining significant momentum, driven by acute labor shortages and rising costs in manufacturing and logistics. Technologically, this trend is fueled by advancements in multi-degree-of-freedom actuation and crucial breakthroughs in generative AI, which helps enhance robot adaptability and intelligence. A key market driver is the electric vehicle sector, which is actively investing in these solutions. The humanoid form factor is a critical advantage, offering a general-purpose architecture that integrates seamlessly into existing human-centric environments without costly modifications. This convergence of market need and technological maturity is positioning humanoid robots for rapid adoption in automating dull, dangerous, and repetitive tasks.

TE Value Proposition

TE Connectivity (TE), one of the global leaders in robotic connectivity, manufactures flexible and high-performance components essential for the advancement of Humanoid Robots. Our extensive interconnect portfolio includes power, signal, data, and hybrid connectors, alongside electronic components such as EMI filters & chokes, power and signal relays, contactors, and sensors. TE serves as a one-stop shop, delivering smaller, faster, and safer connectivity solutions tailored for Humanoid Robots. We are committed to driving technologic innovation and trends, meeting evolving market demands with the agility and speed required in this dynamic phase of platform iterations.

TE Advantages

- Excellent technology combined with dedicated engineer-to-engineer support, positioning TE as a strategic co-development partner for Humanoid Robots and subsystem manufacturers
- Deep application expertise backed by years of experience in Robotics
- Comprehensive understanding of key connectivity subsystem requirements, including actuators, charging interfaces, sensors, and end effectors
- Continuous product innovation, enabling optimized solutions that keep pace with rapidly evolving market needs
- A customer-centric, solutions-focused approach to every challenge

TE Products in Humanoid Robot Sub-Systems

Vision (Camera System)



RJ45



Cordset



M8/M12



MINI I/O



M8/M12

Other Sensors

Dexterous Hand



M8/M12



MicroCon connector



MicroStac connector



Dynamic D1000 Slim

Rotary / Linear Actuator



MiniBridge connector



MicroBridge connector



Dynamic D1000 Slim



M15 Hybrid Connector

Central Main Controller (Brain / Domain Controller)



RJ45



Cordset



USB Type A with Latch



MicroStac connector

Motion Control Board (Cerebellum)



RJ45



Cordset



MiniBridge connector



Dynamic D1000 Slim



MINI I/O



MicroCon connector



MicroBridge connector

Charging Station



Charging connector



EMI Filters and Chokes



Blind Mating Connector



Power and PCB Relays

Battery Swap System



BPSC

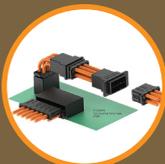


HMN Floating



High Current and Mating cycle contact

Battery Management System



Dynamic 5000