

**Nidec**

# **FLEXWAVE**

*The Next Generation*



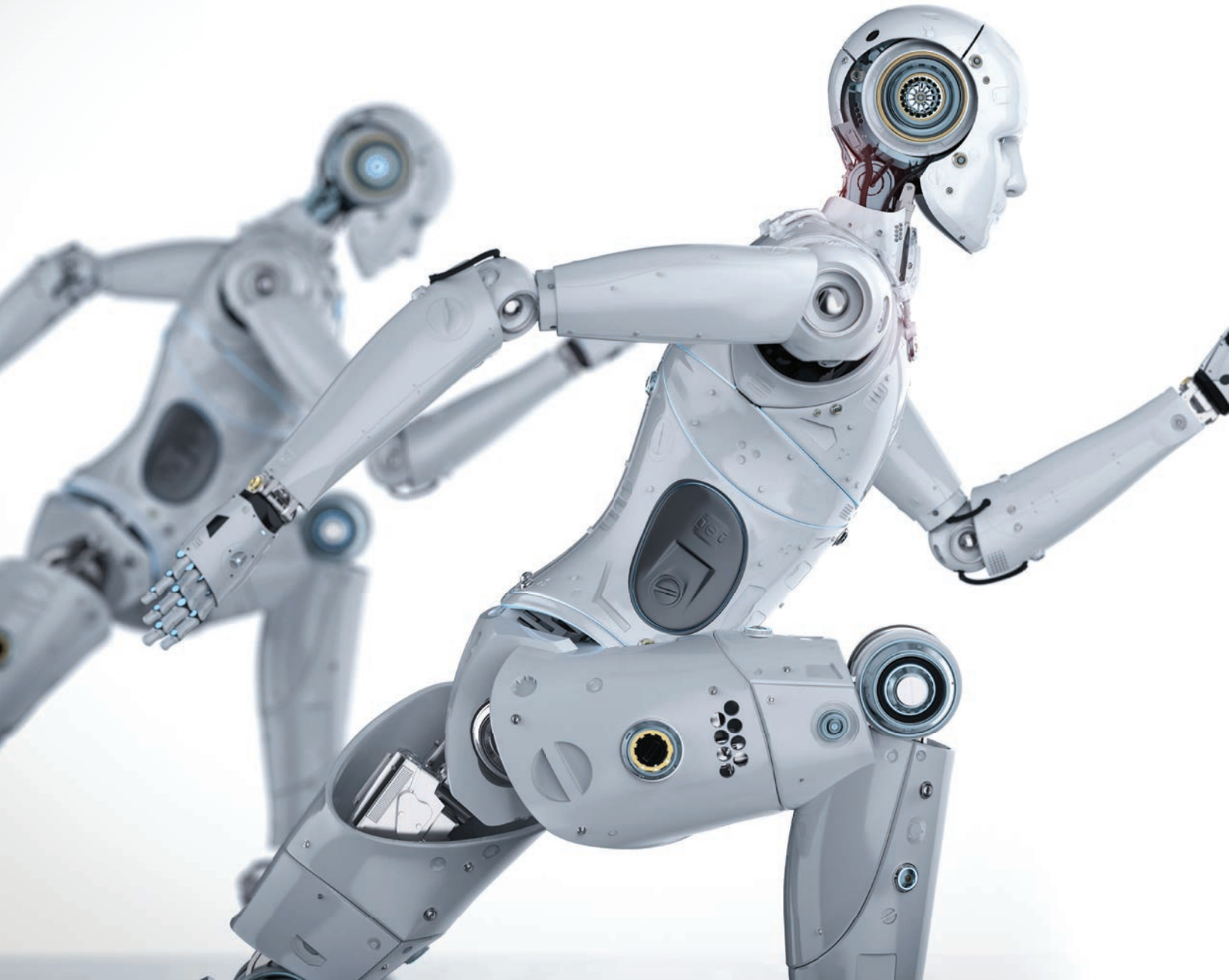
**Humanoid Robots**

**NIDEC DRIVE TECHNOLOGY**

## Humanoid Robots

Humanoid robots used for functional purposes, such as interacting with human tools and environments that can help assist us with daily activities. Highly developed humanoid robots require smooth movements for joint positioning and motion cycles similar to humans. High positional accuracy, zero backlash, low vibration, maximum torque capacity, as well as lightweight and compactness are a necessity for drive components for such robot structures. The *Next Generation* Nidec FLEXWAVE gear reducers are the ideal choice for these types of applications.

The *Next Generation* Nidec FLEXWAVE offer robot designers virtually unlimited flexibility and adaptability when designing highly innovative drive mechanisms.

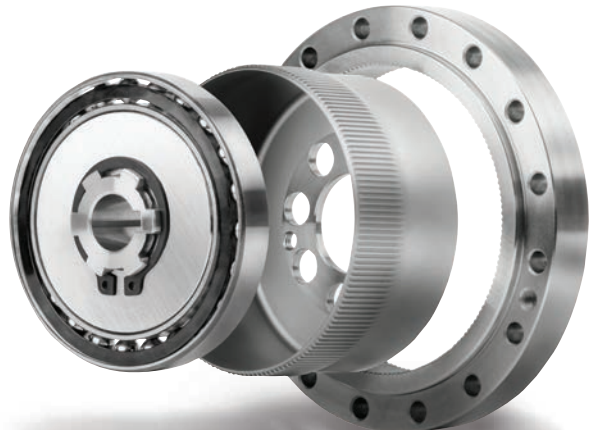


## Component Sub-assembly Type

The core strain wave gear elements without any supplemental components that provide additional bearing support, the structure for containment and specialized input or output configurations.

### Series Features

- Simplest and flexible design
- Allows complete integration into equipment
- Lightweight and compact
- High torque options
- Most cost effective at high volumes



### WPC-□-□-CR

Frame	Ratio	Maximum Output Torque [Nm]	Outer Diameter [mm]
35	50, 80, 100	23 - 36	50
42	50, 80, 100, 120	44 - 70	60
50	50, 80, 100, 120, 160	73 - 120	70
63	50, 80, 100, 120, 160	127 - 229	85
80	50, 80, 100, 120, 160	291 - 484	110

## Flat Profile (D), Both Complete and Simple Contained Type

The core strain wave complete unit assembly and simple contained assembly units are lightweight and compact reducers that are much thinner than the standard type.

### Series Features

- Self-supported output section
- Versatile to allow for total integration
- Variety of output mounting options
- Lightweight and extremely compact
- High torque options



### WPC-□-□-CD

### WPU-□-□-CD

### WPU-□-□-CDH

### WPS-□-□-SD

### WPU-□-□-SDH

Frame	Ratio	Maximum Output Torque [Nm]	Outer Diameter [mm]
35	50, 80, 100	12 - 19	50 - 70
42	50, 80, 100, 120	23 - 37	60 - 80
50	50, 80, 100, 120	39 - 57	70 - 90
63	50, 80, 100, 120	69 - 110	85 - 110
80	50, 80, 100, 120	151 - 233	110 - 142

[nidec-dtc.com](https://nidec-dtc.com)

***Nidec***

---

**NIDEC DRIVE TECHNOLOGY CORPORATION**  
175 Wall Street, Glendale Heights, IL 60139 USA  
Phone: (800) 842-1479 • [info@nidec-dtc.com](mailto:info@nidec-dtc.com)