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Company: Nidec Drive Technology Corporation

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Nidec Drive Technology Develops Smart-FLEXWAVE, the World's First Precision Reducer with Multiple Built-in Sensors

Nidec Drive Technology Corporation (“Nidec Drive Technology” or the “Company”), a member of Nidec Corporation’s group companies, announced today that it has developed Smart-FLEXWAVE, the world-first product that combines FLEXWAVE, an existing precision control reducer for robots and machine tools, with built-in torque, temperature, and angle sensors.



Smart-FLEXWAVE

FLEXWAVE, the currently available precision reducer with a wave gear mechanism, is used chiefly in industrial robots’ joints for its **ability to achieve a high reduction ratio with a single axis**, among other features such as light weight, compact size, high rotation accuracy, and super-low backlash. The Smart-FLEXWAVE, the newly developed reducer that combines torque, temperature, and angle sensors in its mechanism, can detect output torque, temperature inside a reducer, and input axis angle while maintaining an existing reducer’s space. This feature enables Smart-FLEXWAVE to **contribute to making smaller and lighter collaborative robots, detect a robot crashing into an obstacle, and monitor screw tightening torque, overheat, stopping place, etc., all remotely via a network**, boosting productivity.

This new reducer of the series will be exhibited at International Robot Exhibition (iREX) 2023 to be held at Tokyo Big Sight (Tokyo International Exhibition Center) from November 29 – December 02, 2023 (The Company’s booth will be E2-27 of Hall East 1-3).

The Company stays committed to providing a variety of fields with its high-efficiency industrial machines based on its reducer- and continuously variable transmission-based knowhow to contribute to productivity enhancement and automation.

For more details on the above product, please contact Nidec Drive Technology Corporation’s Reducer Company Business Planning Group at 75-958-3887. Thank you.

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