



FOR IMMEDIATE RELEASE

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## **Nidec and IBM Japan to Jointly Develop IoT Technology - For Better Production Rate and Shorter Downtime of Production Equipment and Machinery based on Big Data Analysis Technology -**

Nidec Corporation (NYSE: NJ) (the “Company,” or “we” or its derivatives) today announced that it has launched a joint development of a big data analysis technology together with IBM Japan with the main purpose of “improving production ratio via early detection of problems” and “shortening downtime via better factor analysis efficiency” for various production equipment and machinery equipped with the Nidec Group’s motors.

### 1. Needs and solutions regarding IoT-based big data analysis technology

The Company, possessing all kinds of motor-related knowhow, is executing a strategy of equipping its Group’s products with IoT functions to increase their added value in order to create new, large-scale businesses to achieve the Group’s 10 trillion-yen sales target set for the fiscal year ending March 31, 2031. Executing such a strategy requires us to transform our conventional selling-oriented business model to an IoT-based solution model, and offer maintenance and other life-cycle services, and such a transformation requires a predictive problem diagnostic system and an efficient factor analysis to provide accurate problem-solving measures. As the Company moves forward with this joint open innovation, IBM Japan will provide us with consulting, software utilization, and system-establishing services based on IBM’s globally accumulated skills and insights in problem detection and predictive maintenance.

### 2. Introducing big data analysis technology for press machines

Specifically, this joint effort has initiated the technical development to “improve production ratio via early problem detection” by using Nidec-Shimpo Corporation’s press machine. The conventional system required an experienced press machine operator to check a monitoring system’s screen for problems and decide whether any action is necessary. This joint project aims to establish a system which, by analyzing data obtained based on correlations among various sensors, will detect problems before humans do, and execute measures for such problems even before they occur.

Our initial customer needs analysis revealed that many defects at press machine sites occur due to tooling-related reasons, and that anticipating tooling-caused problems would lead to a better production ratio. Accordingly, as the first company in the industry, we attached sensors on the press machine, analyzed data collected from the sensors, and successfully developed a technology to detect tooling-related and other problems with products based on the data analysis. This technology will enable our customers to reduce tooling-related downtime, extend their press machines’ durability, and improve the machine’s production ratio by monitoring the state of the press machines’ tools based on a numerical value called the “tooling health score.”

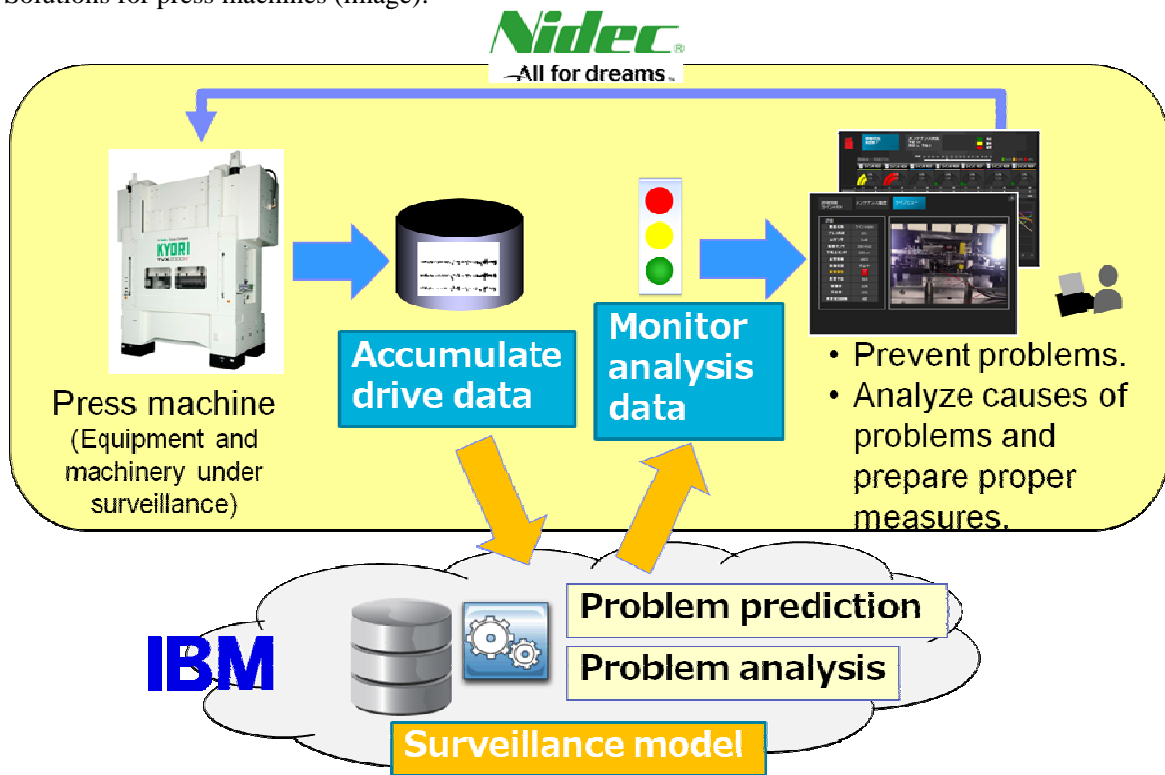
The press machine equipped with IoT functions and the big data analysis technology will be exhibited at MF-Tokyo 2015 (Press, Sheet Metal and Forming Fair) to be held at Tokyo Big Site from July 15 – 18, 2015, with IBM Japan’s technological support.

Going forward, we will perform a “problem factor analysis” at a Nidec Group company’s press machine factory outside Japan by the end of this year. Conventional press machines had to rely on individual operators’ skills to identify the causes and solutions of manufacturing-related problems; with the new technology, however, the big data analysis will enable us to identify the causes of problems highly accurately, implement non-human-oriented measures properly, and thus shorten downtime.

3. Going forward: What the Nidec Group will do with the new technology

We will provide the Nidec Group’s non-press-machine equipment and machinery with a problem detection model that utilizes the newly developed big data analysis technology, and try to improve those equipment’s and machinery’s production rate. Then, after fully confirming the technology’s effectiveness, we will utilize this technology on the Nidec Group’s other equipment and machinery as an IoT solution, and start offering it to companies outside of the Nidec Group as well.

Solutions for press machines (image):



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