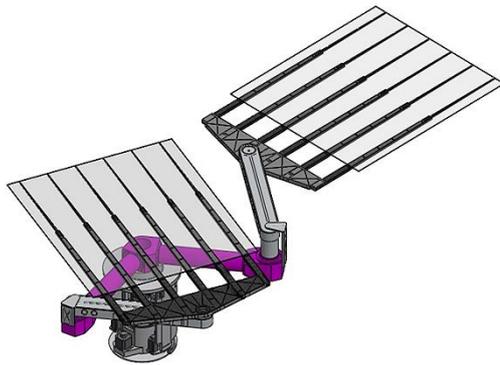


December 11, 2023

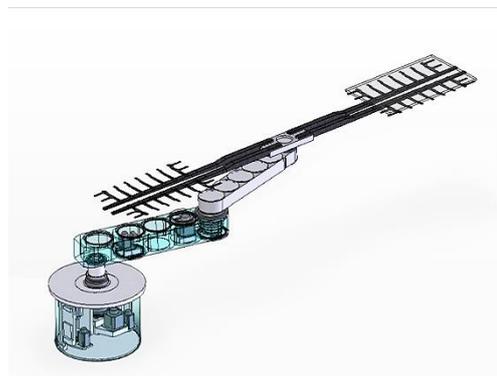
Company: Nidec Instruments Corporation
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Nidec Instruments Develops Vacuum-resistant Liquid Crystal Substrate Transfer Robots

Nidec Instruments Corporation (“Nidec Instruments” or the “Company”), a wholly owned subsidiary of Nidec Corporation, today announced the development of liquid crystal substrate transfer robots that can move their joints in a vacuum environment as freely as in the air.



SR8670



SR8665

In a process to manufacture liquid crystal, organic electroluminescent (EL), and other displays, mother glass substrates are constantly required to be made larger, and their processing speed faster, as their production cost must be reduced and screen sizes must be made larger at the same time. In recent years, display manufacturers are required to handle large, 3m x 3m products because the larger glasses robots can transfer, the better transfer efficiency they can achieve. As mother glass substrates’ thin-film and vapor deposition processes require an extremely clean vacuum environment, transfer robots used in such processes must be vacuum-resistant as well.

As the company with the largest global market share for transfer robots used in organic EL substrates’ vapor deposition process, Nidec Instruments utilized its knowhow in these latest products as well. Robots that operate in vacuum have joints with seals to keep air and dust inside their arms and other parts. Though such sealing mechanisms restrain the movements of transfer robots’ joints, the Company’s latest products **adopt magnetic seals integrated with reducers to minimize the seals’ use, and thus secure the same level of freedom as in the air**. To meet its customers’ needs, Nidec Instruments has added two new modes with different arm shapes, *i.e.*, a boomerang type and a scalar type, to its product lineup, while suppressing cost by using common units for them.

As a member of the world’s leading comprehensive motor manufacturer, Nidec Instruments stays committed to offering revolutionary solutions that contribute to creating a comfortable society.

For more details on the above products, please contact Sales Group 1, Sales Department 4 of Nidec Instruments Corporation’s Sales Division at +81-3-5740-3005 (direct line). Thank you.

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