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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Michelle K. Lee

Director of the United States Patent and Trademark Office



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(12) **United States Patent**
Jang

(10) **Patent No.:** **US 9,333,689 B2**
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(54) **ROBOT FOR PROCESSING INJECTION MOLDED PRODUCT**

(58) **Field of Classification Search**

CPC .. B29C 47/92; B29C 45/4005; B29C 37/0017
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See application file for complete search history.

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(57) **ABSTRACT**

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Provided is a take-out robot including a load cell in a rotating unit to allow an injection molded product to be attached to an adhesive unit, measure a weight of the injection molded product, and determine whether the injection molded product is desirable or faulty. A chucking device of measuring the weight may be installed to prevent a vertical load during the taking out and a force during the conveying from being applied to the load cell, and allow the force to be applied to the load cell only when reaching a weight measuring point. Further, a cut portion may be formed to have a stepped boundary surface in the load cell and thus, a stopper function may be performed against bending deflection of the load cell when a load is applied so that the load cell may be protected without an additional chucking device of measuring the weight.

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(Continued)

(52) **U.S. Cl.**

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12 Claims, 7 Drawing Sheets

