Picking up the pieces: Unveiling RightPick

April 6 2017, by Nancy Owano

(Tech Xplore)—RightHand Robotics has introduced RightPick. This is a combined hardware and software solution that handles the key task of picking individual items, or "piece-picking."

The Somerville, MA based group launched the platform at an industry

event. The group is targeting [fulfillment](#) for the pharmaceutical, electronics, grocery, and apparel industries.

Grasping systems that can handle order fulfillment well are a big area of interest today; e-commerce is securely in our future, and the team is confident that RightPick will be just what many industry people will want on board. This is all about the ability to pick pieces— individual items such as pill bottles, soap bars, soft fabric purses, economy sized tubes of skin cream.

As e-commerce continues to grow, the trend is away from bulk or pallet-load handling, toward single SKUs and piecemeal items. In brief, robotic piece picking systems will be much appreciated.

Commented Andy Rubin, founder and CEO at Playground Global. "For the first time, affordable industrial robots can grasp [things](#) they have never seen before."

MIT Technology Review picked up on this too, saying the gripper can manipulate unfamiliar objects, "and it shares what it learns with a hive mind in the cloud."

"The supply chain of the future is more about pieces than pallets," said RightHand Robotics Co-Founder Leif Jentoft said in news release.

Why are the grippers such a big deal? Grasping mechanisms for robotic hands have remained a technical challenge.

Will Knight in *MIT Technology Review:* "Picking different types of objects piled into a bin may sound simple, but it remains a huge challenge for robots, especially if the objects are unfamiliar. Humans are able to guess how an occluded object looks and feels, and we apply years of grasping experience to the task," said Knight.

The company said the RightPick advantages include fulfilling orders at high speeds and having sensor feedback to make sure of accurate orders.

The key edge for this gripper, though, is something even greater. "Unlike traditional factory robots that can be complex to setup and are singly purposed, RHR solutions are simple to integrate and adaptable to improve the utilization of many different customer workflows, such as sorting batch-picked items, picking items from an ASRS, inducting items to a belt sorter, and order quality assurance."

In *Gizmodo*, Andrew Liszewski translated this into an account of what this gripper actually achieves. It is a multi-fingered gripper with an extending suction tool in the middle and a camera. It can analyze objects and determine the best way to grasp and hold any object.

"Images from the camera are instantly processed by an algorithm developed by RightHand that tells the gripper what combination of fingers it should use, and if activating the suction tool is necessary. The system can also take advantage of machine learning techniques to automatically refine and tweak that algorithm as it encounters and learns to handle unfamiliar products."

Their news release said, "As e-commerce continues to grow, the trend is away from bulk or pallet-load handling toward single SKUs and piecemeal items expands along with it."

The release said "RightPick handles thousands of different items using a machine learning backend coupled with a sensorized robot hand."

The product is intended for logistics, e-commerce, and material handling industries. RightPick works in concert with all industry-leading robotic arms, said the news release.