primevision

AUTONOMOUS SORTING

GAME-CHANGING **SORTING TECHNOLOGY**

Prime Vision has a new product for postal sorting operations – it can act as a game-changer for postal and express-parcel carriers alike: Sorting without a Sorter. Imagine being able to start a sophisticated sorting operation with a simple concrete floor and be operational in perhaps days instead of months or years. The materials handling and movement role previously done by "heavy metal" sorters is now done by an army of worker bees that identify, assess and physically sort the item to its dispatch location. The "worker bee is a good paradigm for this strategy as so-called "swarming algorithms" are a key part of the success of the system.

OPEN AND FLEXIBLE

A founding principle of the autonomous sorting solution is that it should be low cost to start-up and operate compared to traditional "heavy metal" sorters in terms of sorting speed and parcel throughput. This means that there will be no barriers to adoption by posts seeking to integrate a more scalable and flexible sorting strategy. Significant lower capital investments are required compared to traditional sorters, and the solution can be quickly implemented at any location.

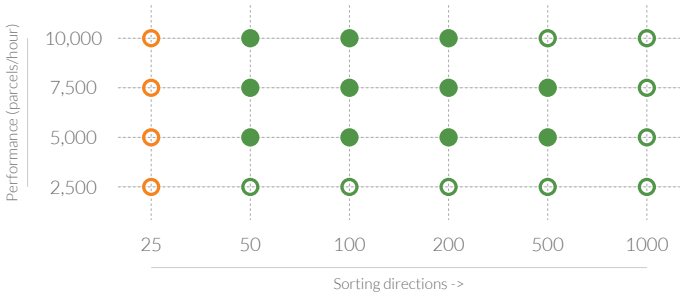
Flexibility also means adopting a design approach that guarantees open development and interoperability, especially independence between hardware and software. There are also many hybrid opportunities that utilize traditional sorting technology investments in combination with the new techniques.

A PERFECT STORM OF TECHNOLOGIES

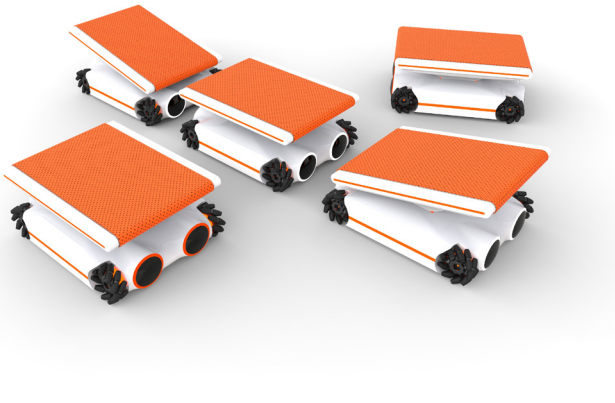
The autonomous sorting product makes use of "swarming algorithms" that stand for software that enables vehicles to co-operate in close proximity to each other without collision. Other significant factors include hardware such as ground and air-based UVs (Unmanned Vehicles), navigation and mapping technology, advanced sortation software, scalable cloud-based software platforms, reliable wide-area data communications, and battery technology.

RAPID AND ACCURATE

Autonomous UVs can rapidly and accurately perform the sorting at a lower cost per sorted unit than the current industry standard. The table below shows what is the most efficient combination of robots and amount of parcels per hour.



The table shows that robots can competitively sort from 50 to 500 sorting directions and work join-up to require a larger sortation platform. For less than 50 and more than 500 sorting directions, attractiveness depends on individual circumstances.



Many sorting directions

Swarming robots for bigger parcels

THE MMS PLATFORM

The robots are managed by Prime Vision's high-tech sortation platform. It is a stand-alone system that offers the best levels of flexibility and intelligence paired with maximum configuration and process possibilities. It is an open adaptable platform that keeps aside of developing technologies, and allows for seamless integration of applications.

Today this integrates sortation machines with the sortation logic, OCR and video coding capabilities as well as other adjacent systems and tomorrow It can bring other capabilities together.

CURIOUS?

Please contact us via our website for an in-depth conversation or a demonstration in our innovation center.

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