

Human-robot gaming improves city waste management



Software as a service platform [Jodone](#)'s latest design makes sorting recyclables from trash faster, more efficient and ultimately, more profitable. Made for use with industry standard robots from multiple suppliers, the interface turns the acts of recognizing and categorizing recyclables into a game.

As waste travels along a conveyor belt, workers swipe a touch screen to classify items as recyclable. The instructions are sent wirelessly to robotic arms that then pick and sort the appropriate pieces. In the laboratory, the collaborative process achieved a recycling rate eight times higher than humans alone and with a 95 percent accuracy rate.

Currently being trialed at a waste-to-energy facility in Minnesota, Jodone estimates that additional revenue of USD 24 million could be generated. The software collects data that enables statistical modeling and performance reviews, and in the pilot program, workers will be financially rewarded for higher-than-average rates of recycling.

Further development of the interface will focus on making the software smarter so that it learns from past swipes in order to suggest items for recycling. Workers could then approve or ignore the choice.

As environmental standards rise and governments get tougher on industries and their waste management processes, Jodone sees gamification as key to both cost saving and improved working conditions. With gamification being used as an incentive in everything from [cancer gene research](#) to [composting](#), in what other areas of R&D could humans' love of play be harnessed for social good?

Website: www.jodone.com

Contact: www.jodone.com/about