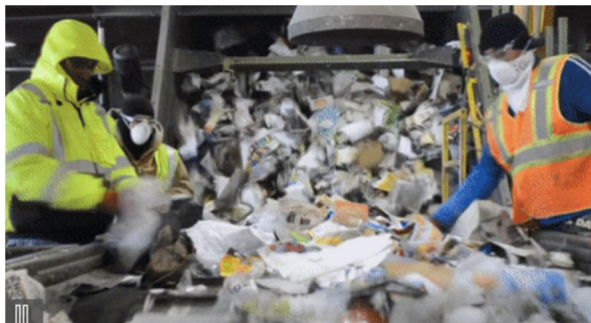




MULTI-CAMERA ROBOTIC ARM CONTROL FOR WASTE RECYCLING

« SELLING » STATEMENT:

A multi-camera robot with a gripper, capable to automatically detect, pickup, and sort complex (deformed, transparent) objects from a random pile



Before VIZTA...



Full system developed

KEY FEATURES

A camera enabling to pilot the robot according to various variables:

- Detection of objects and width determination

- Acquirement of distances to transparent objects (combination of camera and acoustic sensor)

- Safe detection of humans' presence

High-reliability capabilities

- 90% success in attempted picks

- 98% plastic classification accuracy

A versatile system offering several manipulation capabilities

- Specific training and calibration

Other interesting results:

- Synthetic generation of training data for perception AI

- Experimental module of imitation learning-based throwing of bottles

- Navigation stack for a mobile robot

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