Patent Searches

<http://patft.uspto.gov/>

Results:

* No method or patent was found using the Google Cloud Vision API directly for sorting recyclables
* No method or patent was found that sorted recyclables starting with the recycling bins. Instead, more assembly line methods were found
* Closest method (2) sorts scrap particles that uses computer analytics to determine color components of the scraps, much like the dominant colors feature of the Cloud Vision API and combines it with a light beam to determine the frequency of light emitted. This is used to classify scraps.

1 is not that important or good. The 2nd link is important for Design Review

1. <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetahtml%2FPTO%2Fsearch-adv.htm&r=35&p=1&f=G&l=50&d=PTXT&S1=(recycle+AND+sorting)&OS=recycle+and+sorting&RS=(recycle+AND+sorting)>
   1. Patent Abstract
      1. Methods and systems for mining or recovering high value recyclable materials from waste streams with high percentages of recyclable materials. Examples of waste streams that can be advantageously processed using the methods and systems herein include dry commercial solid waste, dry industrial solid waste, and/or source separated curbside collected and processed single stream waste. The methods utilize a shredder to improve the efficiency and recovery rate of recyclables. Some methods also include upgrading an existing waste processing facility to include a shredder.
2. <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetahtml%2FPTO%2Fsearch-adv.htm&r=8&p=1&f=G&l=50&d=PTXT&S1=(recycle+AND+sorting)&OS=recycle+and+sorting&RS=(recycle+AND+sorting)>
   1. Patent Abstract
      1. A system and a method of ***sorting*** scrap particles includes imaging a moving conveyor containing scrap particles using a vision system to create an image. A computer analyzes the image as a matrix of cells, identifies cells in the matrix containing a particle, and calculates a color input for the particle from a color model by determining color components for each cell associated with the particle. A light beam is directed to the particle on the conveyor downstream of the vision system, and at least one emitted band of light from the particle is isolated and detected at a selected frequency band to provide spectral data for the particle. The computer generates a vector for the particle containing the color input and the spectral data, and classifies the particle into one of at least two classifications of a material as a function of the vector.