Proof of Concept : For classification

### Introduction

This paper shall cover the implementation details of creating a small-scale garbage classifier, with outlook on the approach and forecasted path. Segregation of garbage is a fast escalating issue in the context of both urban and rural scenarios- despite numerous attempts on part of civic authorities and NGOs to promote segregation at source- owing to several reasons, including a lack of logistics for manual sorting, and the difficult nature of sorting garbage manually at the corporation level. The intended garbage classifier is meant to be used at an individual to community usage, as the primary point of drop off.

### Papers and Methodologies Studied

Prior to the writing of this feasibility report, several past papers and prototypes were looked into with an analysis of their accomplishments and shortcomings.

In a 2011 report, the Imperial College of London applied Computer Vision to sorting Milk HDPE cartons, relying primarily on shape and label identification – with an accuracy of 71%.

### Segregation Design Schematic

### Basic Layout and Datasets

### Expected Difficulties and Proposed Workarounds

### Planned Phases and Scaling Up