

Team Copy Waste

Introduction

 IN PARTNERSHIP WITH
PRAIRIE ROBOTICS



THE TEAM



Nolan
Flegel



Rishabh
Prasad



William
Peers

PROJECT MISSION

TO *AUTOMATE* THE
DETECTION OF
SEVERE & RARE
CONTAMINANTS IN
RECYCLING



Business Opportunity

- People are **confused** about which products are recyclables
- These contaminants cost cities **millions** of dollars to extract from recycling each year
- Severe and Rare occurrence waste cause **risk** and **contamination**
- Rare occurrence waste is currently **impossible** to detect reliably

Reason

- Recycling is contaminated, expensive, and inefficient
- Waste collection is dangerous and presents a direct risk to workers
- Our responsibility to protect the environment and create safer workplaces
- Improve recycling rates and reduce costs for municipalities

Impact

- Make recycling simpler
- Create a less hazardous environment for workers
- Expand the number of objects that can be detected

Our Customer

Waste Management
companies & **Municipalities**
who are attempting to identify
hazardous waste



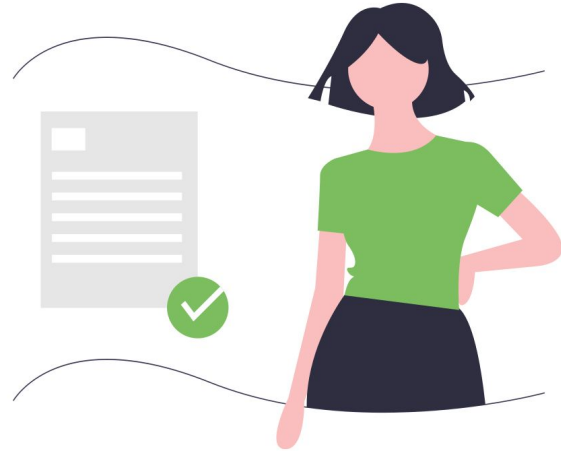
Our Customer

Prairie Robotics will serve as
our industry partner



Others Affected

Educating Individuals who misplace severe and rare occurrence waste in recycling



Technology

- Copy Paste Algorithm
- Mask R-CNN
- YOLO (You Only Look Once)
- AWS
- Python
- React



Project Objectives

- Universal Waste Bin Detector
- Automated Copy-Paste Augmentation Pipeline
- Interactive User Interface

Constraints

- Limited knowledge of Machine Learning, Artificial Intelligence and the Copy-Paste Algorithm
- Access to testing platform (active waste truck)
- Architecture cost
- Mitacs Proposal

Thanks for Watching!