Problem Definition/Formation:

# Needs Statement:

The failure to have recyclables make it into/though the recycling system causes hundreds of tonnes of waste to be added to landfills on a yearly basis, costing citizens millions of dollars a year, an effect that will grow as population increases.

# Problem Statement:

A method to increase the number of recyclables making it into/though the system is required.

# Functions and Design goals:

* Residential solution for identification of recyclables with the optional sorting mechanism
* Design relatively cheap and accessible to the greater population (open-source)

# Objectives: (functional requirements)

* Properly identify and characterize different recyclables
* Have (digital) output pins on the device/controller to send signal to optional sorting system

# Constraints: (restrictive functional requirements)

* Under 250$ for the end consumer

# Criteria: (Selection criteria for choosing between design solutions, how you will measure the objectives and constraints)

* Ability to accurately determine if the object is recyclable more than 75% of the time.