

# Smart Bin ArPi

Smarter Bin , Healthier Environment

# Problem Statement

## Problem 1

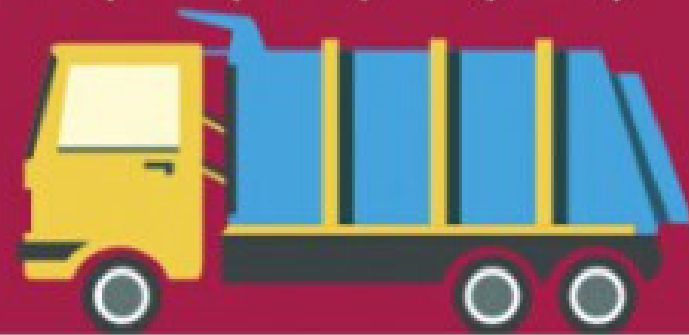
Garbage bins overflowed causing unhygiene environment

## Problem 2

Costly investment to distribute the garbage collectors to every garbage bins locations



The average Malaysian throws away **1.64 kg** of waste daily, compared to the worldwide average of **1.2 kg**



Malaysia's waste production will increase **65%** to 17,000 tonnes per day by **2020**



source : <https://www.estate123.com/insight/2015/07/a-guide-to-waste-separation-in-malaysia/>



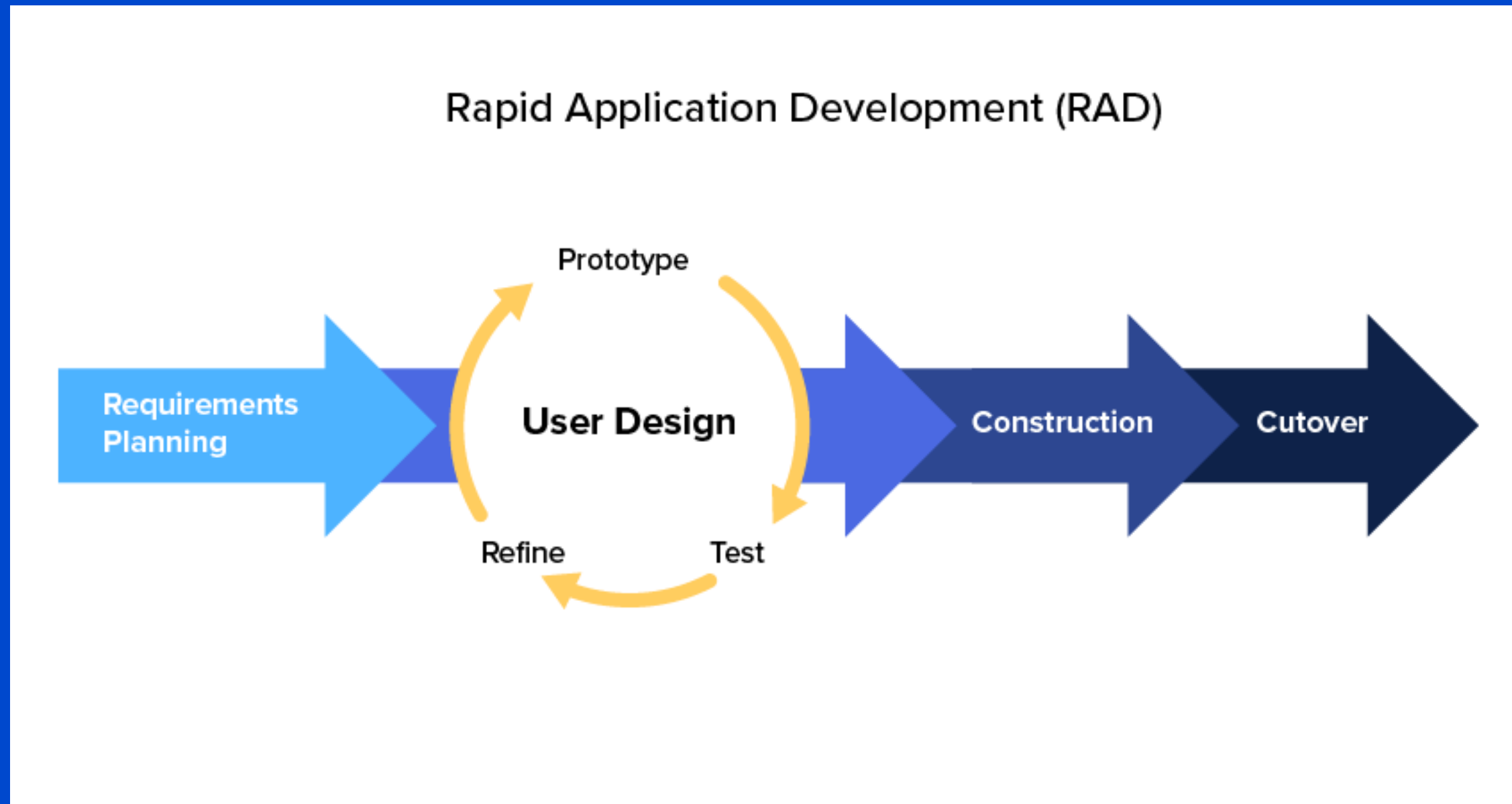


# Smart Waste ArPi

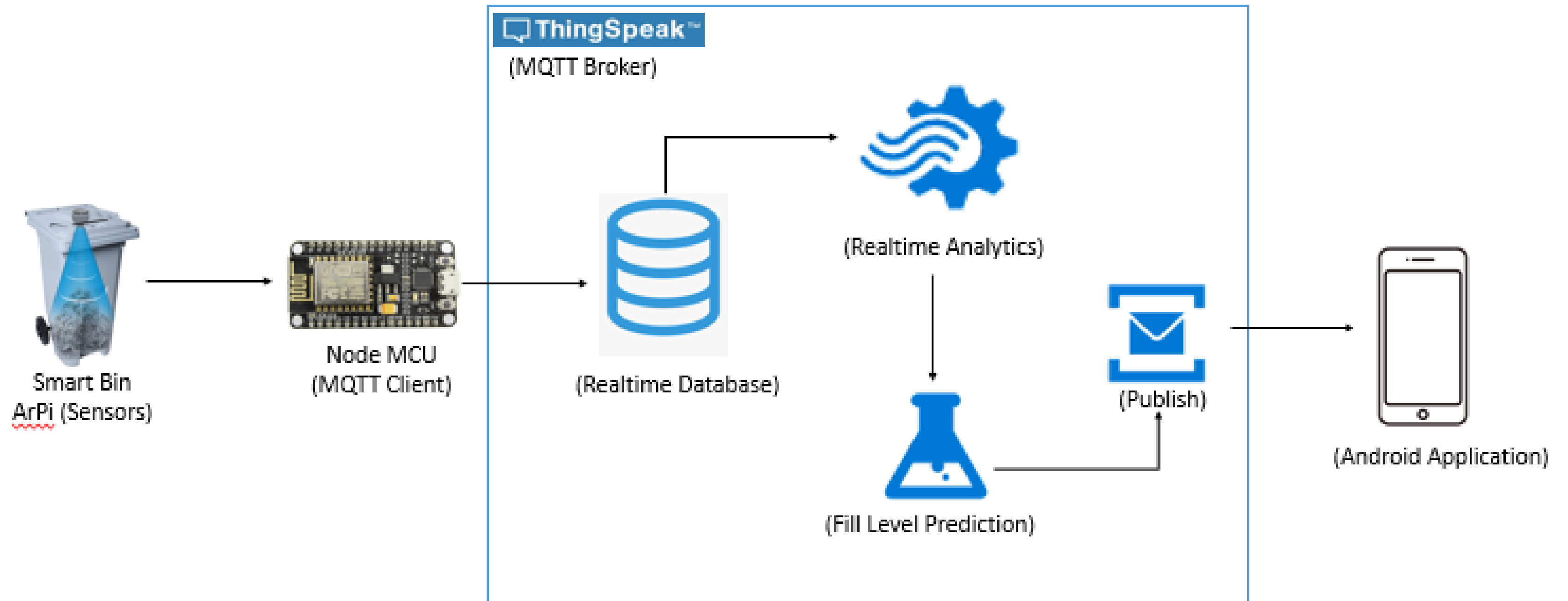
Smart waste management technologies can reduce operational costs and environmental problems associated with inefficient waste collection.



# Methodology



# Smart Bin ArPi Architecture



# Smart Bin ArPi -The Smart Bin

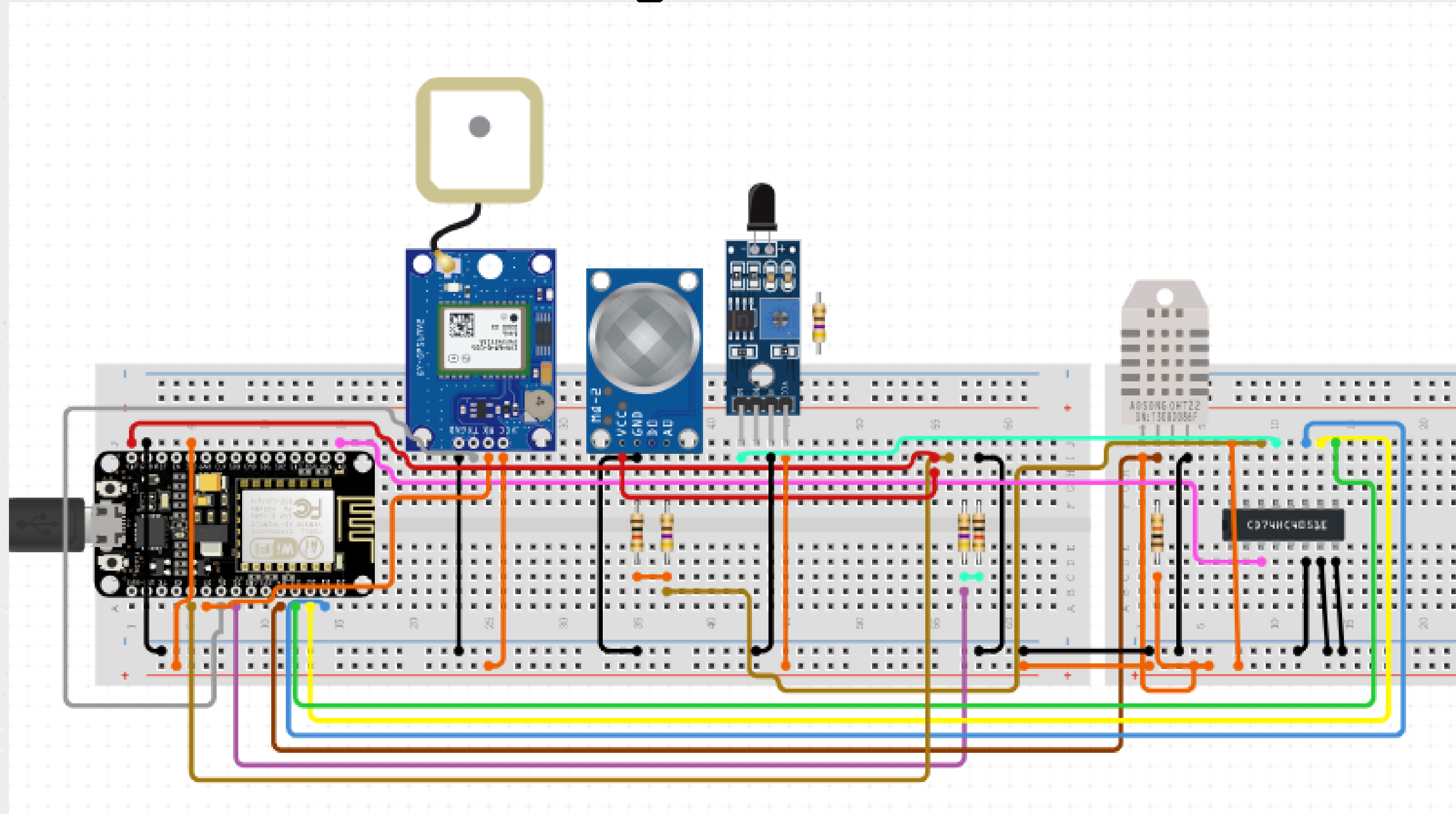
Smart Bin were build based on 2 main modules :

- Monitoring Module
- Collection Module

For optimum performance and customization, this 2 main module were further divided into 4 modules :

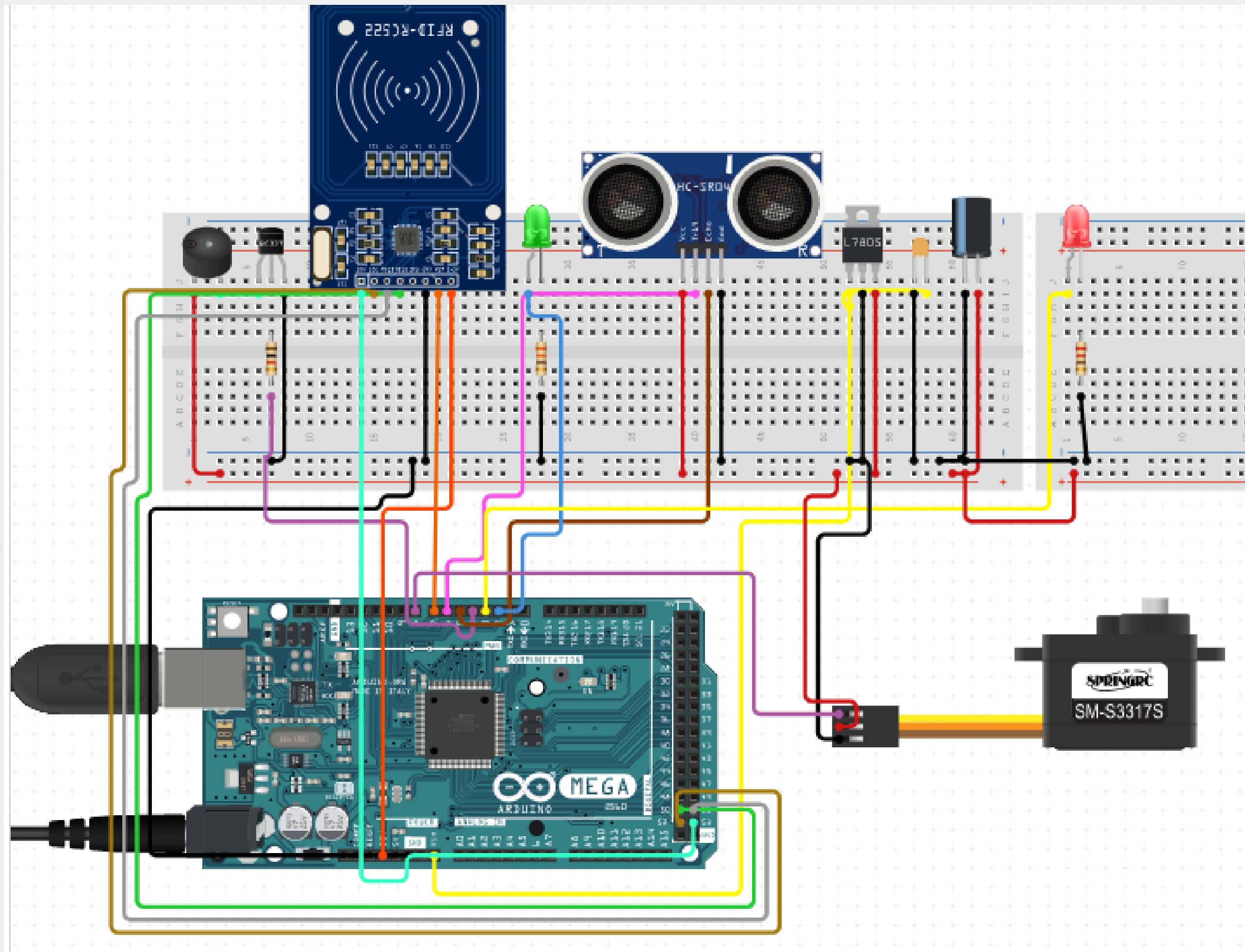
- Monitoring Module
- Access & Compaction Module
- Opening Module
- Notification Module

# Monitoring Module

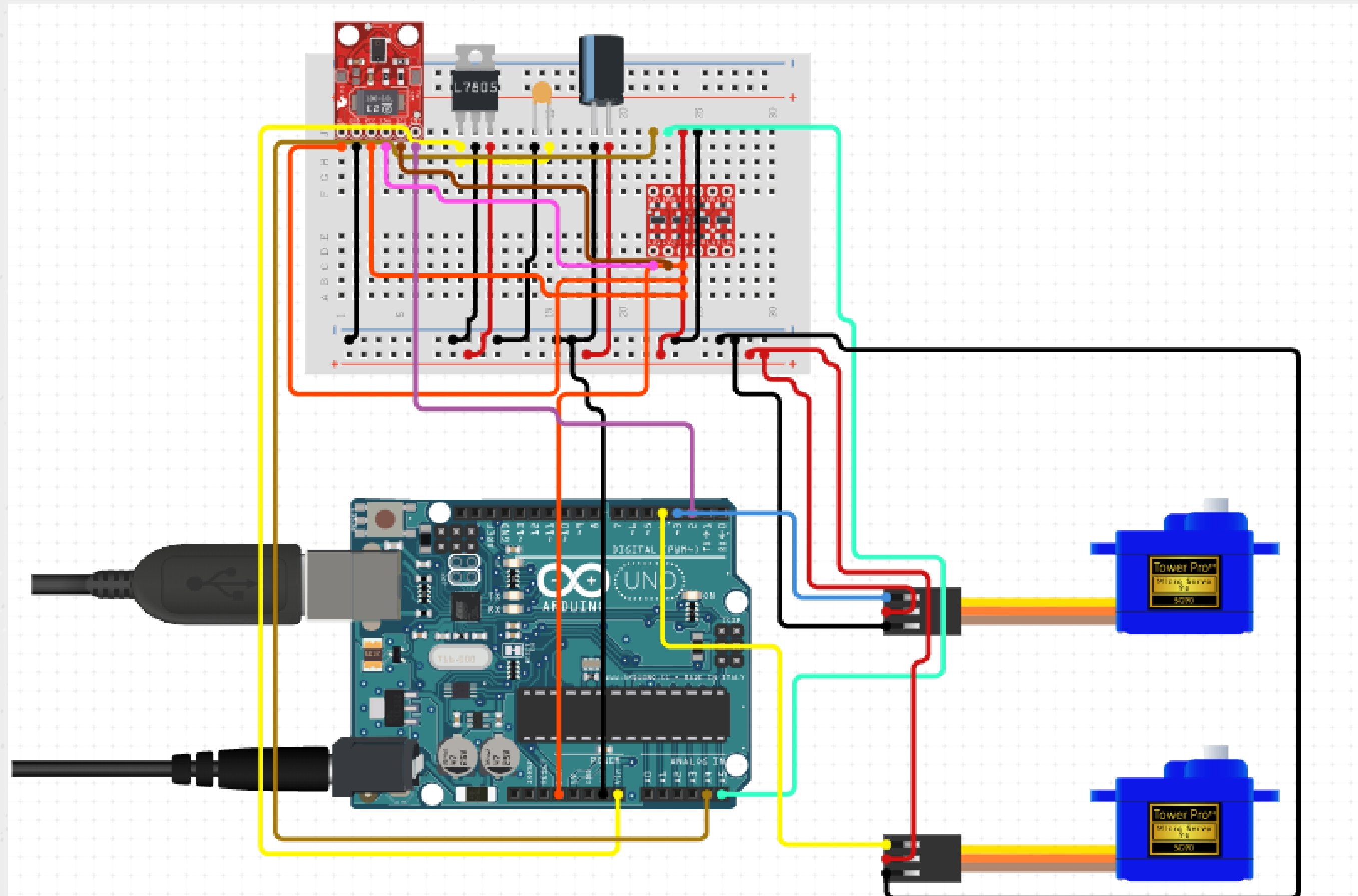




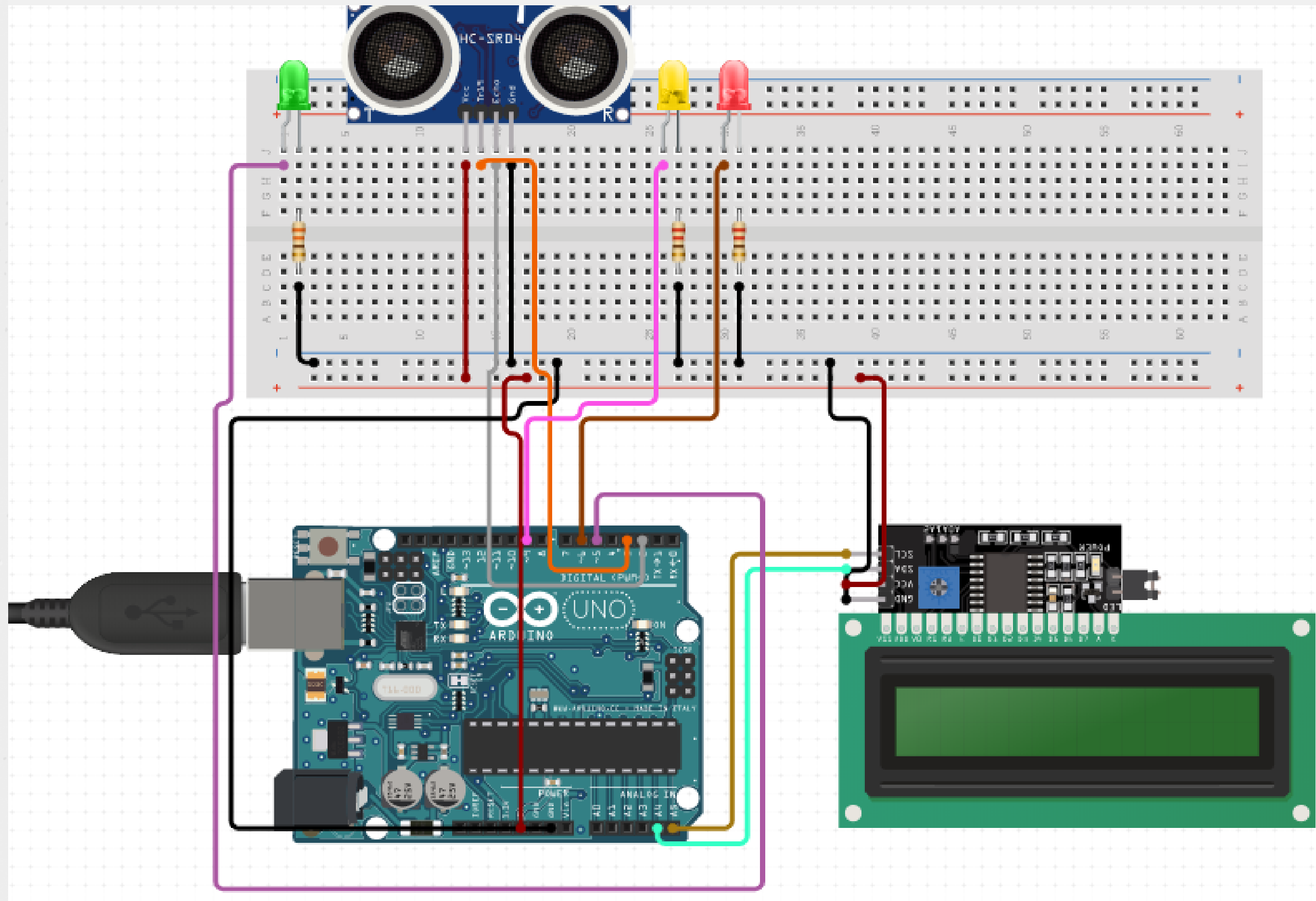
# Access & Compaction Module



# Opening Module



# Notification Module



# Results from questionnaire

## Smart Bin ArPi Questionnaire Results

