

## **ABSTRACT**

This paper aim to design a Public Dustbin with Sensor and UV Light. Specifically aims to develop recycled an disinfection waste, provide gate pass to ensure the safety of individual`s in the community, implement Public Dustbin with Sensor and UV Light, attach object and trash sensor to sense waste as basis for entry and inside the bin.

The project was accomplished purposely to avoid the spread of Virus through UV Light and practice of the health standard through recycled and disinfection waste (gate pass). The main controller used is Arduino Uno which controls the disinfection and gate problem. A Capacitive sensor is used to sense the object, the ultrasonic sensor is used to sense the waste inside the bin. While UV Light is used for disinfection the waste. This project is consist of three stages, starting with the shredding through shredder, the second stage is using Ultrasonic sensor and the last is the UV Light that disinfection the waste.