ABSTRACT

Trash is a material that is wasted or disposed of sources result of human activity. Landfills that are not taken care of properly will lead to big problems. Usually the waste to be disposed of to landfill (Final Disposal) in the first stack where indicated. But often the janitor in charge of transporting the waste to waste too late already accumulated disturbing activity until it can cause disease. Garbage that has piled up so high that it is difficult to be transported by a janitor.

The series started from the input system from Ultrasonic Sensor. Ultrasonic waves propagate through the air, the signal emitted by the ultrasonic wave transmitter TX (Transmitter). When the signal of the object and bounces back then the signal will be received by the RX (receiver). Great value distances measured by the ultrasonic sensor becomes an input to the microcontroller as a reference for determining the condition of a pile of garbage. If the value obtained distance data transmission limit eligible microcontroller will immediately tweeted to an account belonging to the city office and janitor sms containing the status of a pile of garbage with the help of GSM / GPRS module.

The results obtained by the ultrasonic sensor to read high piles of garbage and provide notification via twitter and sms. Ultrasonic sensor readings to the actual distance in an error most kecil.besar 0.60%. The average time for delivery Tweets from Arduino to twitter for 2 seconds.

Keywords: Microcontroller, Ultrasonic Sensor, Module GSM / GPRS