

***Ahsanullah University of Science & Technology***

Department of Computer Science & Engineering



**Facilitated Smart Dustbin**

**CSE 3216**

**Microcontroller Based System Design Lab**

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## INTRODUCTION

Environmental pollution mainly caused for littering is as old as the civilization itself. It has become a major concern in the last few decades. It is the by product of the development of civilization and in fact a price for the progress. It is more prone in case of Bangladesh. People throw trash everywhere and this tendency is very harmful. So we have decided to make a smart dustbin which people can easily use to throw trash and that will help to reduce the harm. Basically it will be an easily accessible dustbin.

## COMPONENTS

### Hardware Components :

- Sonar Sensor (HC-SR04)
- Servo Motor SG90
- Gear Motor
- Wheel
- Bluetooth Module
- Arduino-Uno
- Dustin Box
- Temperature Sensor
- LCD
- Battery

### Software Components :

- Arduino IDE
- Proteus
- Bluetooth Controller Application

## FEATURES

- It can be moved and controlled in a room or place by using a Bluetooth controller.
- When someone will hold the trash in front of the bin, the cover of the bin will open automatically.
- It will show an user beneficial message after throwing the trash inside it.

## FUTURE PLANS

- **Command control:** We have a plan that the dustbin can be controlled by commands also.

## CONCLUSION

Basically the main theme of this project is to stop people from littering everywhere and make our country as well as the world clean and beautiful.