

## PROJECT DEVELOPMENT PHASE

Team ID	PNT2022TMID49101
Project Name	Smart Waste Management System For Metropolitan Cities

## DELIVERY OF SPRINT 3

```
import RPi.GPIO as GPIO
```

```
import yagmail
```

```
import time
```

```
import mysql.connector
```

```
TRIG=21 ECHO=20
```

```
dusbinLevelInper=0
```

```
confirmation=0
```

```
GPIO.setmode(GPIO.BCM)
```

```
GPIO.setup(TRIG,GPIO.OUT)
```

```
GPIO.setup(ECHO,GPIO.IN)
```

```
GPIO.setup(19, GPIO.OUT)
```

```
def mailsender():
```

```
if(confirmation==3):
```

```

mydb = mysql.connector.connect(

host="192.168.143.95",      user="root",

password="mysqlpassword",    database="IbmDataBase"

)

mycursor = mydb.cursor()

confirmation=0    sql = "SELECT * FROM dsbn
WHERE dusid =1"

mycursor.execute(sql)    myresult
= mycursor.fetchall()

Frommailadress="from@gmail.com"    password="myapp
password"

yag = yagmail.SMTP(Frommailadress,password)    yag.send("TO@gmail.com",

"",

"Level of the dustbin is "+str(myresult[0][1])+

" locations of the dustbin "+str(myresult[0][3])+ " "+str(myresult[0][2])+""")

print("sendedsuccessfull")

else:

print(confirmation)

```

```
defDataBaseCon():
```

```
mydb = mysql.connector.connect(
```

```
host="192.168.143.95",    user="root",
```

```
password="mynewpassword",
```

```
database="IbmDataBase"
```

```
)
```

```
mycursor = mydb.cursor()
```

```
sql = "UPDATE dsbn SET dusLevel = "+str(dusbinLevelInper)+" WHERE dusId = '1'"
```

```
mycursor.execute(sql)    mydb.commit()
```

```
print(mycursor.rowcount, "record(s) affected")
```

```
defledblinkon():
```

```
GPIO.output(19, GPIO.HIGH)
```

```
defledblinkoff():
```

```
GPIO.output(19, GPIO.LOW)
```

```
while True:
```

```
print("distance measurement in progress")
```

```
GPIO.output(TRIG,False)    print("waiting for
```

```
sensor to settle")    time.sleep(0.2)
```

```
GPIO.output(TRIG,True)
time.sleep(0.00001)

GPIO.output(TRIG,False)
while GPIO.input(ECHO)==0:
    pulse_start=time.time() while
    GPIO.input(ECHO)==1:
        pulse_end=time.time()
        pulse_duration=pulse_end-pulse_start
        distance=pulse_duration*17150
        distance=round(distance,2)
        print("distance:",distance,"cm")
        time.sleep(2)
```

```
if(distance>=60):
    dusbinLevelInper=0

ledblinkoff() elif(distance<=60 and
distance>=45):

dusbinLevelInper=25

ledblinkoff() elif(distance<=45 and
distance>=30):

dusbinLevelInper=50 ledblinkoff()

elif(distance<=30 and distance>=10):
    dusbinLevelInper=80 ledblinkoff()
```

else:

dusbinLevellInper=100

ledblinkon()      confirmtion+=1

mailsender()    DataBaseCon()

time.sleep(20)