#include <SoftwareSerial.h>

int buzzer=7;

SoftwareSerial gsm(3,4);

int TRIG\_PIN=10;

int ECHO\_PIN=12;

int BAUD\_RATE=9600;

int dist,count,c;

void setup()

{

pinMode(7,OUTPUT);

//digitalWrite(7,HIGH);

pinMode(TRIG\_PIN, OUTPUT);

pinMode(ECHO\_PIN, INPUT);

Serial.begin(BAUD\_RATE);

delay(200);

gsm.begin(9600);

delay(200);

}

int distance(int d)

{

digitalWrite(TRIG\_PIN, LOW);

delayMicroseconds(2);

digitalWrite(TRIG\_PIN, HIGH);

delayMicroseconds(10);

digitalWrite(TRIG\_PIN, LOW);

const unsigned long duration= pulseIn(ECHO\_PIN, HIGH);

dist= duration/29/2;

return dist;

}

void loop()

{

Serial.print("Distance:");

int dist1=distance(dist);

Serial.println(dist1);

int dist2=distance(dist);

if((dist1<30 && dist2>dist1)||(dist1<30 && dist2==dist1))

{

count=count+1;

if(count>100)

{

c=c+1;

Serial.println("Vehicle Found in No Parking");

for(int i=0;i<30;i++)

{

tone(buzzer, 1000); // Send 1KHz sound signal...

delay(100); // ...for 1 sec

noTone(buzzer); // Stop sound...

delay(100);

}

// digitalWrite(7,HIGH);

if(c>1)

{

sendSMS("8247825054","No Parking Alert Please Check ");

delay(2000);

c=0;

xx:

int dist1=distance(dist);

while(dist<30){

Serial.println("WAITING FOR CAR TO MOVE");

goto xx;

}

}

}

}

else

{

count=0;

}

}

void sendSMS(char mob[],char msg[])

{

Serial.println("SENDING SMS....");

gsm.println("AT");

delay(1000);

gsm.println("AT+CMGF=1");

delay(1000);

gsm.print("AT+CMGS=");

gsm.write('"');

gsm.print(mob);

gsm.write('"');

gsm.println();

delay(2000);

gsm.print(msg);

delay(2000);

gsm.write(0x1A);

delay(5000);

Serial.println("SMS SENT");

delay(1000);

}