**5.1.1 BLIND SECTION:**

#include<SoftwareSerial.h>

SoftwareSerial iots(6, 7);//(RX=6,TX=7)

#define sw 3

#define voice1 A0

#define voice2 A1

#define voice3 A3

int rfid1[13] = {'2', '7', '0', '0', '5', '5', '5', '4', 'F', 'E', 'D', '8'};

int rfid2[13] = {'2', '7', '0', '0', '5', '6', '0', 'D', '6', 'E', '1', '2'};

int rfid3[13] = {'2', '5', '0', '0', '8', 'A', '2', '6', 'C', '6', '4', 'F'};

short int i, j, k, flag;

char c, ch;

char rfid();

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

iots.begin(9600);

pinMode(sw, INPUT\_PULLUP);

pinMode(voice1, OUTPUT);

pinMode(voice2, OUTPUT);

pinMode(voice3, OUTPUT);

//Serial.println("BUS INDICATION FOR VISUALLY CHALLENGED PEOPLE USING RFID");

digitalWrite(voice1, HIGH);

digitalWrite(voice2, HIGH);

digitalWrite(voice3, HIGH);

}

void loop() {

// put your main code here, to run repeatedly:

c = rfid();

if (c == 'A')

{

digitalWrite(voice1, LOW);

delay(1000);

digitalWrite(voice1, HIGH);

delay(5000);

if (digitalRead(sw) == LOW)

{

Serial.println('A');

}

}

if (c == 'B')

{

digitalWrite(voice2, LOW);

delay(1000);

digitalWrite(voice2, HIGH);

delay(5000);

if (digitalRead(sw) == LOW)

{

Serial.println('B');

}

}

if (c == 'C')

{

digitalWrite(voice3, LOW);

delay(1000);

digitalWrite(voice3, HIGH);

delay(5000);

if (digitalRead(sw) == LOW)

{

Serial.println('C');

}

}

if(Serial.available() > 0){

while (Serial.available() > 0) {

ch = Serial.read();

}

if (ch == 'A') {

//Serial.println("hiii 1");

iot("\*BLIND PERSON AT BUS NUMBER 15A#");

ch=' ';

}

if (ch == 'B') {//Serial.println("hiii 2");

iot("\*BLIND PERSON AT BUS NUMBER 19#");

ch=' ';

}

if (ch == 'C') {//Serial.println("hiii 3");

iot("\*BLIND PERSON AT BUS NUMBER 18#");

ch=' ';

}

}

c = ' ';

}

char rfid()

{

while (iots.available() > 0)

{

char inchar = iots.read();

// Serial.print(inchar);

if (inchar == rfid1[i]) //FIRST TAG

{

i++;

if (i == 12)

{

i = j = 0;

flag = 1;

break;

}

}

if (inchar == rfid2[j]) //SECOND TAG

{

j++;

if (j == 12)

{

i = j = 0;

flag = 2;

break;

}

}

if (inchar == rfid3[k]) //FIRST TAG

{

k++;

if (k == 12)

{

i = j = k = 0;

flag = 3;

break;

}

}

}

if (flag == 1)

{

flag = 0;

return 'A';//BUS1

}

if (flag == 2)

{

flag = 0;

return 'B';// BUS2

}

if (flag == 3)

{

flag = 0;

return 'C';// BUS3

}

else

{

return 0;

}

}

void iot(String data)

{ for(int i=0;i<=data.length();i++)

{ iots.write(data[i]); }

delay(4000);

}

**5.1.2 BUS SECTION:**

#define relay 3

#define light 4

#define sound 5

#define touch A0

static char c;

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

pinMode(relay,OUTPUT);

pinMode(light,OUTPUT);

pinMode(sound,OUTPUT);

pinMode(touch,INPUT);

//Serial.println("BUS INDICATION");

digitalWrite(relay,HIGH);

}

void loop() {

// put your main code here, to run repeatedly:

while(Serial.available()>0)

{

c=Serial.read();

}

if(c=='A'){

digitalWrite(relay,LOW);

digitalWrite(sound,HIGH);

digitalWrite(light,HIGH);

// Serial.println("BUS NUMBER 25G");

while(digitalRead(touch)==LOW);

Serial.println('A');

digitalWrite(sound,LOW);

digitalWrite(light,LOW);

delay(1000);

c=' ';

}

if(c=='B'){

digitalWrite(relay,LOW);

digitalWrite(sound,HIGH);

digitalWrite(light,HIGH);

// Serial.println("BUS NUMBER 19");

while(digitalRead(touch)==LOW);

Serial.println('B');

digitalWrite(sound,LOW);

digitalWrite(light,LOW);

delay(1000);

c=' ';

}

if(c=='C'){

digitalWrite(relay,LOW);

digitalWrite(sound,HIGH);

digitalWrite(light,HIGH);

//Serial.println("BUS NUMBER 11G");

while(digitalRead(touch)==LOW);

Serial.println('C');

digitalWrite(sound,LOW);

digitalWrite(light,LOW);

delay(1000);

c=' ';

}

digitalWrite(relay,HIGH);

}