VOICE ACTIVATED HOME AUTOMATION

**Arduino Coding**

String voice;

int RED = 2;

int GREEN = 3 ;

int BLUE = 4;

int YELLOW = 5;

int A = 6;

int B = 7 ;

int C = 8;

int D = 9;

int E = 10;

int F = 11 ;

int G = 12;

int H = 13;

void RedOn(){

digitalWrite (RED, LOW);

}

void Redoff(){

digitalWrite (RED, HIGH);

}

void GreenOn(){

digitalWrite (GREEN, LOW);

}

void Greenoff(){

digitalWrite (GREEN, HIGH);

}

void BlueOn(){

digitalWrite (BLUE, LOW);

}

void Blueoff(){

digitalWrite (BLUE, HIGH);

}

void YellowOn(){

digitalWrite (YELLOW, LOW);

}

void Yellowoff(){

digitalWrite (YELLOW, HIGH);

}

void AOn(){

digitalWrite (A, LOW);

}

void Aoff(){

digitalWrite (A, HIGH);

}

void BOn(){

digitalWrite (B, LOW);

}

void Boff(){

digitalWrite (B, HIGH);

}

void COn(){

digitalWrite (C, LOW);

}

void Coff(){

digitalWrite (C, HIGH);

}

void DOn(){

digitalWrite (D, LOW);

}

void Doff(){

digitalWrite (D, HIGH);

}

void EOn(){

digitalWrite (E, LOW);

}

void Eoff(){

digitalWrite (E, HIGH);

}

void FOn(){

digitalWrite (F, LOW);

}

void Foff(){

digitalWrite (F, HIGH);

}

void GOn(){

digitalWrite (G, LOW);

}

void Goff(){

digitalWrite (G, HIGH);

}

void HOn(){

digitalWrite (H, LOW);

}

void Hoff(){

digitalWrite (H, HIGH);

}

void allon() {

digitalWrite (RED, LOW);

digitalWrite (GREEN, LOW);

digitalWrite (BLUE, LOW);

digitalWrite (YELLOW, LOW);

digitalWrite (A, LOW);

digitalWrite (B, LOW);

digitalWrite (C, LOW);

digitalWrite (D, LOW);

digitalWrite (E, LOW);

digitalWrite (F, LOW);

digitalWrite (G, LOW);

digitalWrite (H, LOW);

}

void alloff() {

digitalWrite (RED, HIGH);

digitalWrite (GREEN, HIGH);

digitalWrite (BLUE, HIGH);

digitalWrite (YELLOW, HIGH);

digitalWrite (A, HIGH);

digitalWrite (B, HIGH);

digitalWrite (C, HIGH);

digitalWrite (D, HIGH);

digitalWrite (E, HIGH);

digitalWrite (F, HIGH);

digitalWrite (G, HIGH);

digitalWrite (H, HIGH);

}

void setup() {

Serial.begin(9600);

pinMode(RED, OUTPUT);

pinMode(GREEN, OUTPUT);

pinMode(BLUE, OUTPUT);

pinMode(YELLOW, OUTPUT);

pinMode(A, OUTPUT);

pinMode(B, OUTPUT);

pinMode(C, OUTPUT);

pinMode(D, OUTPUT);

pinMode(E, OUTPUT);

pinMode(F, OUTPUT);

pinMode(G, OUTPUT);

pinMode(H, OUTPUT);

}

void loop() {

while(Serial.available()) {

delay(10);

char c=Serial.read();

if(c=='#')

{break; }

voice += c;

}

if (voice.length() > 0) {

Serial.println(voice);

if (voice == "all on" || voice == "all")

{

allon() ;

}

else if (voice == "switch off" || voice=="switch off all" || voice == "switch of" || voice=="switch of all" || voice=="all off" || voice=="all of")

{

alloff() ;

}

else if(voice =="room LED on" || voice =="bedroom LED on" || voice =="bedroom LED on" || voice =="bedroom light on" || voice =="bedrrom light on"){

RedOn();

}

else if(voice =="switch off bedroom LED" || voice =="switch off bedroom light" || voice =="switch of bedroom LED" || voice =="switch of bedroom light" || voice =="bedroom light off" || voice =="bedroom light of" || voice =="bedroom LED off" || voice =="bedroom LED of"){

Redoff();

}

else if(voice =="fan" || voice =="fan on" || voice =="bedroom fan on"){

YellowOn();

}

else if( voice =="switch off fan" || voice =="fan off" || voice =="switch of fan" || voice =="fan of" || voice =="bedroom fan off" || voice =="bedroom fan of" ){

Yellowoff();

}

else if(voice =="TV" || voice =="TV on" || voice =="TV start"){

BlueOn();

}

else if(voice =="switch off TV" || voice =="TV off" || voice =="switch of TV" || voice =="TV of"){

Blueoff();

}

else if(voice =="AC" || voice =="AC on"){

GreenOn();

}

else if(voice =="switch off AC" || voice =="AC off" || voice =="switch of AC" || voice =="AC of"){

Greenoff();

}

else if(voice =="washroom light on" || voice =="one on"){

AOn();

}

else if(voice =="washroom light off" || voice =="washroom light of"){

Aoff();

}

else if(voice =="conference room light on"|| voice=="2 on"){

BOn();

}

else if( voice =="conference room light off" || voice =="conference room light of"){

Boff();

}

else if(voice =="kitchan room light on" || voice =="3 on"){

COn();

}

else if(voice =="kitchan room light off" || voice =="kitchan room light of"){

Coff();

}

else if(voice =="living room light on" || voice =="4 on"){

DOn();

}

else if(voice =="living room light off" || voice =="living room light of"){

Doff();

}

else if(voice =="camera on" || voice =="5 on "){

EOn();

}

else if(voice =="camera off" || voice =="camera of"){

Eoff();

}

else if(voice =="mobile detector on"){

FOn();

}

else if( voice =="mobile detector off" || voice =="mobile detector of"){

Foff();

}

else if(voice =="fire alarm on"){

GOn();

}

else if(voice =="fire alarm off" || voice =="fire alarm of"){

Goff();

}

else if(voice =="fence light on"){

HOn();

}

else if(voice =="fence light off" || voice =="fence light"){

Hoff();

}

voice="";

}

}