int ledPins[] = {5, 6, A2, A4, A3, 9, 10, 11};

int switchPin = 2;

int buttonPin = A5;

int vibePin = 3;

int buzzerP = 7;

int buzzerN = 12;

int speaker=7;

int lightSensorPin = A6;

int tempSensorPin = A1;

/\* Global variables \*/

int light = 100;

int C=1046;

int D=1175;

int E=1319;

int F=1397;

int G=1568;

int A=1760;

int B=1976;

int C1=2093;

void setup() {

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

for(int i=0; i<5; i++) // This for loop will run 5 times

{ // blink the white LEDs (first 5 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set pin as output

digitalWrite(ledPins[i], HIGH); // turn LED on

delay(250); // wait for a quarter second

digitalWrite(ledPins[i], LOW); // turn LED off

}

for(int i=5;i<8;i++) // This for loop will run 3 times

{ // blink the RGB LEDs (last 3 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set the pin as an output

digitalWrite(ledPins[i], LOW); // turn RGB LED on

delay(250); // wait a quarter second

digitalWrite(ledPins[i], HIGH); // turn the RGB LED off

// Note that a HIGH turns the RGB LED off, LOW is on

// that's backwards from the white LEDs

}

////////////////////////////////////////////

//Switch

pinMode(switchPin, INPUT); // set the switch as an input

digitalWrite(switchPin, HIGH); // enable the pull-up resistor

//Button

pinMode(buttonPin, INPUT); // set the pin as an input

digitalWrite(buttonPin, HIGH); // enable the pull-up resistor

//VIBE

pinMode(vibePin, OUTPUT); // set the pin as an output

//Buzzer

pinMode(buzzerP, OUTPUT); // set both buzzer pins as outputs

pinMode(buzzerN, OUTPUT);

Serial.begin(9600);

}

void loop() {

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

if(digitalRead(buttonPin) == 0)

{ // if you press the button, make a short buzz

tone(speaker, G);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, G);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, G);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, E);

for(int i=0; i<5; i++) // This for loop will run 5 times

{ // blink the white LEDs (first 5 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set pin as output

digitalWrite(ledPins[i], HIGH); // turn LED on

delay(100); // wait for a quarter second

digitalWrite(ledPins[i], LOW); // turn LED off

}

for(int i=4; i>=0; i--) // This for loop will run 4 times

{ // blink the white LEDs (first 5 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set pin as output

digitalWrite(ledPins[i], HIGH); // turn LED on

delay(100); // wait for a quarter second

digitalWrite(ledPins[i], LOW); // turn LED off

}

delay(25);

noTone(speaker);

delay(500);

tone(speaker, F);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, F);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, F);

delay(250);

noTone(speaker);

delay(100);

tone(speaker, D);

for(int i=0; i<5; i++) // This for loop will run 5 times

{ // blink the white LEDs (first 5 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set pin as output

digitalWrite(ledPins[i], HIGH); // turn LED on

delay(100); // wait for a quarter second

digitalWrite(ledPins[i], LOW); // turn LED off

}

for(int i=4; i>=0; i--) // This for loop will run 4 times

{ // blink the white LEDs (first 5 LEDs in ledPins array)

pinMode(ledPins[i], OUTPUT); // set pin as output

digitalWrite(ledPins[i], HIGH); // turn LED on

delay(100); // wait for a quarter second

digitalWrite(ledPins[i], LOW); // turn LED off

}

delay(25);

noTone(speaker);

delay(500);

}

else // If the button is not pressed go in here

{

if(digitalRead(switchPin) == 0)

{ // If the switch is on, vibrate

for(int i=0;i<5;i++)

{

digitalWrite(vibePin, HIGH);

delay(100);

digitalWrite(vibePin, LOW);

}

}

///LIGHT TEST

if(analogRead(lightSensorPin) < 10){

//if its dark, turn on all white leds...

for(int i=0;i<5;i++)

{

digitalWrite(ledPins[i], HIGH);

}

}

else{

// if it's light, turn them off...

for(int i=0;i<5;i++)

{

digitalWrite(ledPins[i], LOW);

}

}

///TEMP TEST

if(analogRead(tempSensorPin) >= 200){

digitalWrite(ledPins[7], HIGH);

digitalWrite(ledPins[6], HIGH);

digitalWrite(ledPins[5], LOW);

}else{

if(analogRead(tempSensorPin) < 180){

digitalWrite(ledPins[7], HIGH);

digitalWrite(ledPins[5], HIGH);

digitalWrite(ledPins[6], LOW);

}else{

if(analogRead(tempSensorPin) < 200){

digitalWrite(ledPins[5], HIGH);

digitalWrite(ledPins[6], HIGH);

digitalWrite(ledPins[7], LOW);

}

}

}

/\* from here on down, we'll just print out the status of every input \*/

Serial.print("Switch=");

Serial.print(digitalRead(switchPin));

Serial.print(" Temp=");

Serial.print(analogRead(tempSensorPin));

Serial.print(" Button=");

Serial.print(digitalRead(buttonPin));

Serial.print(" Light=");

Serial.println(analogRead(lightSensorPin));

}

}