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const int SWITCH1=2;
const int SWITCH2=3;
const int SWITCH3=4;
const int button1 = A0;
const int button2 = A1;
const int button3 = A2;
const int relay1=9;
const int relay2=10;
const int relay3=11;
const int relay4=12;
const int led1=5;
const int led2=6;
const int led3=7;
int led1State = LOW;
int led2State = LOW;
int led3State = LOW;
int button1State;
int button2State;
int button3State;
int lastButton1State = HIGH;
int lastButton2State = HIGH;
int lastButton3State = HIGH;
unsigned long lastDebounceTime = 0;

unsigned long debounceDelay = 50;
void setup() {

    pinMode(SWITCH1,INPUT);
    pinMode(SWITCH2,INPUT);
    pinMode(SWITCH3,INPUT);
    pinMode(button1, INPUT_PULLUP);
    pinMode(button2, INPUT_PULLUP);
    pinMode(button3, INPUT_PULLUP);
    pinMode(relay1,OUTPUT);
    pinMode(relay2,OUTPUT);
    pinMode(relay3,OUTPUT);
    pinMode(relay4,OUTPUT);
    pinMode(led1,OUTPUT);
    pinMode(led2,OUTPUT);
    pinMode(led3,OUTPUT);
    digitalWrite(led1, led1State);
    digitalWrite(led2, led2State);
    digitalWrite(led3, led3State);
}
void loop() {

    int reading = digitalRead(button1);
    int reading1 = digitalRead(button2);
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    int reading2 = digitalRead(button3);
    if (reading != lastButton1State)
    {
        lastDebounceTime = millis();
    }
    if ((millis() - lastDebounceTime) > debounceDelay)
    {
        if (reading != button1State)
        {
            button1State = reading;

            if (button1State == LOW)
            {
                led1State = !led1State;
            }
        }
    }
    digitalWrite(led1, led1State);
    lastButton1State = reading;

    //////////////////////////////////////
    if (reading1 != lastButton2State)
    {
        lastDebounceTime = millis();
    }
    if ((millis() - lastDebounceTime) > debounceDelay)
    {
        if (reading1 != button2State)
        {
            button2State = reading1;
            if (button2State == LOW)
            {
                led2State = !led2State;
            }
        }
    }
    digitalWrite(led2, led2State);
    lastButton2State = reading1;
    //////////////////////////////////////
    if (reading2 != lastButton3State)
    {
        lastDebounceTime = millis();
    }
    if ((millis() - lastDebounceTime) > debounceDelay)
    {
        if (reading2 != button3State)
        {

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        button3State = reading2;
        if (button3State == LOW)
        {
            led3State = !led3State;
        }
    }
}
digitalWrite(led3, led3State);
lastButton3State = reading2;

if (digitalRead(SWITCH1)==LOW &&
digitalRead(SWITCH2)==LOW&&digitalRead(SWITCH3)==HIGH)
{
    digitalWrite(relay1, HIGH);
    digitalWrite(relay2, LOW);
    digitalWrite(relay3, HIGH);
    digitalWrite(relay4, LOW);
    delay(200);
}

if (digitalRead(SWITCH1)==HIGH&&digitalRead(SWITCH2)==HIGH&&digitalRead(SWITCH3)==HIGH)
{
    digitalWrite(relay1, HIGH);
    digitalWrite(relay2, HIGH);
    digitalWrite(relay3, HIGH);
    digitalWrite(relay4, HIGH);
    delay(500);
}

if (digitalRead(SWITCH1)==LOW&&digitalRead(SWITCH2)==HIGH&&digitalRead(SWITCH3)==HIGH)
{
    digitalWrite(relay1, LOW);
    digitalWrite(relay2, HIGH);
    digitalWrite(relay3, HIGH);
    digitalWrite(relay4, LOW);
    delay(500);
}

if (digitalRead(SWITCH1)==HIGH&&digitalRead(SWITCH2)==LOW&&digitalRead(SWITCH3)==HIGH)

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```
{
digitalWrite(relay1, HIGH);
digitalWrite(relay2, LOW);
digitalWrite(relay3, LOW);
digitalWrite(relay4, HIGH);
delay(500);

}
if (digitalRead(SWITCH1)==LOW&&digitalRead(SWITCH2)==LOW&&digitalRead(SWITCH3)
==LOW)
{
digitalWrite(relay1, HIGH);
digitalWrite(relay2, HIGH);
digitalWrite(relay3, HIGH);
digitalWrite(relay4, HIGH);

}
}
```