SMART HOME

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CODE:

```
#include <SPI.h>

#include <Wire.h>


#include <IRremote.h>


const int relay_1 = 12;

const int relay_2 = 11;

const int relay_3 = 10;

const int relay_4 = 9;



const int mswitch_1 = 8;

const int mswitch_2 = 7;

const int mswitch_3 = 6;

const int mswitch_4 = 5;


int RECV_PIN = 3;


IRrecv irrecv(RECV_PIN);

decode_results results;



int toggleState_1 = 0;
```

```
int toggleState_2 = 0;
int toggleState_3 = 0;
int toggleState_4 = 0;

void setup() {

  Serial.begin(9600);
  irrecv.enableIRIn();

  pinMode(relay_1, OUTPUT);
  pinMode(relay_2, OUTPUT);
  pinMode(relay_3, OUTPUT);
  pinMode(relay_4, OUTPUT);

  pinMode(mswitch_1, INPUT_PULLUP);
  pinMode(mswitch_2, INPUT_PULLUP);
  pinMode(mswitch_3, INPUT_PULLUP);
  pinMode(mswitch_4, INPUT_PULLUP);
}

void relayOnOff(int relay){

    switch(relay){
      case 1:
           if(toggleState_1 == 0){
```

```
            digitalWrite(relay_1, HIGH); // turn on
relay 1
            toggleState_1 = 1;
            }
           else{
            digitalWrite(relay_1, LOW); // turn off
relay 1
            toggleState_1 = 0;
            }
           delay(100);
     break;
     case 2:
           if(toggleState_2 == 0){
            digitalWrite(relay_2, HIGH); // turn on
relay 2
            toggleState_2 = 1;
            }
           else{
            digitalWrite(relay_2, LOW); // turn off
relay 2
            toggleState_2 = 0;
            }
           delay(100);
     break;
     case 3:
           if(toggleState_3 == 0){
```

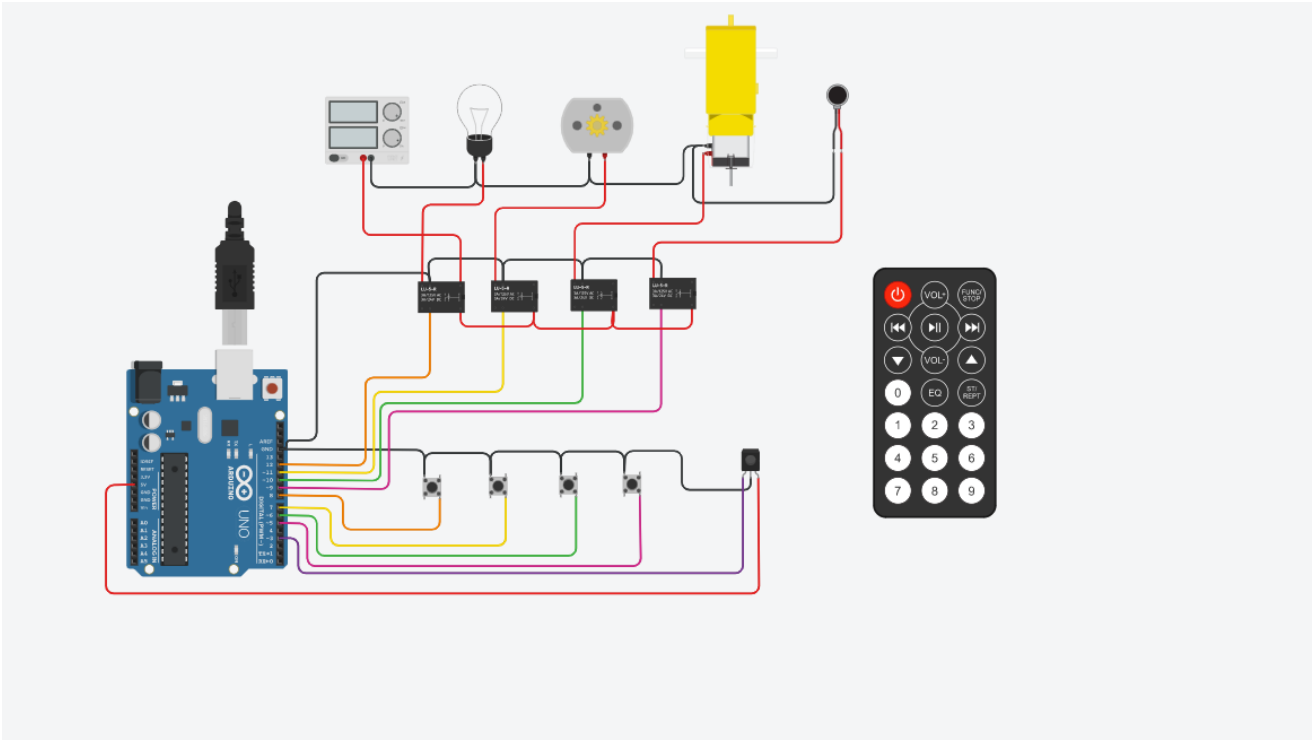
```
            digitalWrite(relay_3, HIGH); // turn on
relay 3
            toggleState_3 = 1;
            }else{
            digitalWrite(relay_3, LOW); // turn off
relay 3
            toggleState_3 = 0;
            }
           delay(100);
     break;
     case 4:
           if(toggleState_4 == 0){
            digitalWrite(relay_4, HIGH); // turn on
relay 4
            toggleState_4 = 1;
            }
           else{
            digitalWrite(relay_4, LOW); // turn off
relay 4
            toggleState_4 = 0;
            }
           delay(100);
     break;

     default : break;
     }
```

```
}



void loop() {


   if (digitalRead(mswitch_1) == LOW){
     delay(200);
     relayOnOff(1);
   }
   else if (digitalRead(mswitch_2) == LOW){
     delay(200);
     relayOnOff(2);
   }
   else if (digitalRead(mswitch_3) == LOW){
     delay(200);
     relayOnOff(3);
   }
   else if (digitalRead(mswitch_4) == LOW){
     delay(200);
     relayOnOff(4);
   }


     if (irrecv.decode(&results)) {
       switch(results.value){
         case 0xFD08F7:
```

```
            relayOnOff(1);
        break;
        case 0xFD8877:
            relayOnOff(2);
        break;
        case 0xFD48B7:
            relayOnOff(3);
        break;
        case 0xFD28D7:
            relayOnOff(4);
        break;
        default : break;
        }
   irrecv.resume();
   }
}
```

TINKERCAD LINK:

https://www.tinkercad.com/things/8u1CpPDoSC8


VOL+
FUNC/ STOP
VOL-
EQ
ST/ REPT
0
1
2
3
4
5
6
7
8
9