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#include <Servo.h>
Servo fin;
int red = 3;
int yellow = 4;
int green = 5;
int r,g,b;
int rL = 6;
int gL = 7;
int bL = 8;
int rR = 9;
int gR = 10;
int bR = 11;
int button = 12;

void setup()
{
    fin.attach(2);
    pinMode(red, OUTPUT);
    pinMode(yellow, OUTPUT);
    pinMode(green, OUTPUT);
    pinMode(rL, OUTPUT);
    pinMode(gL, OUTPUT);
    pinMode(bL, OUTPUT);
    pinMode(rR, OUTPUT);
    pinMode(gR, OUTPUT);
    pinMode(bR, OUTPUT);
    pinMode(button, INPUT_PULLUP);
}

void loop()
{
    buttonWait();
    //user code
}

void forward(int repeat){
    int pos= 0;
    for (int i=0; i<repeat ; i++){
        for(pos = 90; pos <180; pos++)
        {
            fin.write(pos);
            delay(2);
        }
    }
}

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    }
    for(pos = 180; pos>1; pos--)
    {
        fin.write(pos);
        delay(2);
    }
    for(pos = 0; pos<90; pos++)
    {
        fin.write(pos);
        delay(2);
    }
}

void left(int repeat){
    int pos= 0;
    for (int i=0; i<repeat ; i++){
        for(pos = 90; pos <180; pos++)
        {
            fin.write(pos);
            delay(2);
        }
        for(pos = 180; pos>90; pos--)
        {
            fin.write(pos);
            delay(2);
        }
    }
}

void right(int repeat){
    int pos= 0;
    for (int i=0; i<repeat ; i++){
        for(pos = 90; pos >0; pos--)
        {
            fin.write(pos);
            delay(2);
        }
        for(pos = 0; pos<90; pos++)
        {
            fin.write(pos);
            delay(2);
        }
    }
}

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    }
}

void LED(boolean state, String color){
    if (color=="red"){
        if (state){
            digitalWrite(red, HIGH);
        }
        else {
            digitalWrite(red, LOW);
        }
    }
    else if (color=="yellow"){
        if (state){
            digitalWrite(yellow, HIGH);
        }
        else {
            digitalWrite(yellow, LOW);
        }
    }
    else if (color=="green"){
        if (state){
            digitalWrite(green, HIGH);
        }
        else {
            digitalWrite(green, LOW);
        }
    }
}

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void eyeLED(String color,char side){
    if(side=='l'){
        r=rL;
        g=gL;
        b=bL;
    }
    if(side=='r' || side=='b'){
        r=rR;
        g=gR;
        b=bR;
    }
}

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if (color=="white"){
    digitalWrite(r, HIGH);
    digitalWrite(g, HIGH);
    digitalWrite(b, HIGH);
}
else if (color=="red"){
    digitalWrite(r, HIGH);
    digitalWrite(g, LOW);
    digitalWrite(b, LOW);
}
else if (color=="blue"){
    digitalWrite(r, LOW);
    digitalWrite(g, LOW);
    digitalWrite(b, HIGH);
}
else if (color=="green"){
    digitalWrite(r, LOW);
    digitalWrite(g, HIGH);
    digitalWrite(b, LOW);
}
else if (color=="black"){
    digitalWrite(r, LOW);
    digitalWrite(g, LOW);
    digitalWrite(b, LOW);
}
else if (color=="yellow"){
    digitalWrite(r, HIGH);
    digitalWrite(g, HIGH);
    digitalWrite(b, LOW);
}
else if (color=="magenta"){
    digitalWrite(r, HIGH);
    digitalWrite(g, LOW);
    digitalWrite(b, HIGH);
}
else if (color=="cyan"){
    digitalWrite(r, LOW);
    digitalWrite(g, HIGH);
    digitalWrite(b, HIGH);
}
if (side=='b'){
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    eyeLED(color, 'l');
}
}
void buttonWait(){
    if (digitalRead(button)==LOW){
        while (digitalRead(button)==LOW){
            delay(1000);
        }
        digitalWrite(red, HIGH);
        delay(500);
        digitalWrite(yellow, HIGH);
        delay(500);
        digitalWrite(green, HIGH);
        delay(500);
        digitalWrite(red, LOW);
        digitalWrite(yellow, LOW);
        digitalWrite(green, LOW);
        delay(200);
        eyeLED("white", 'b');
        delay(200);
        eyeLED("black", 'b');
        delay(200);
        eyeLED("white", 'b');
        delay(200);
        eyeLED("black", 'b');
        delay(200);
    }
}
```