



WAKE ME UP

Smart window Shutter

WAKE ME UP is a smart window shutter that senses and reacts to sunlight. When the sun rises and shines at the window, the shutter opens automatically, and when the sun sets and the light goes away, the shutter will be closed. This allows the user to wake up easily early in the morning, and catch a good sleep in a dark room while it's still time to sleep.

Type of Project: IOT Project



RESEARCH

Problem Description

You may have experienced waking up to panic with the horrific sound of your alarm clock in the morning, or perhaps you had a difficult time sleeping early in the morning because you forgot to close your window shutter the night before. What if we could get up with a natural source like sunlight which is so relaxing.

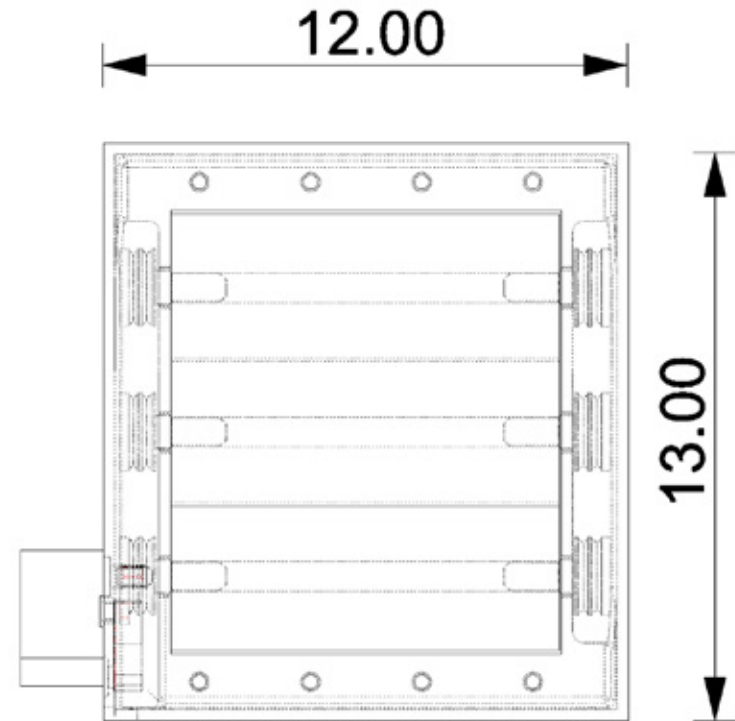
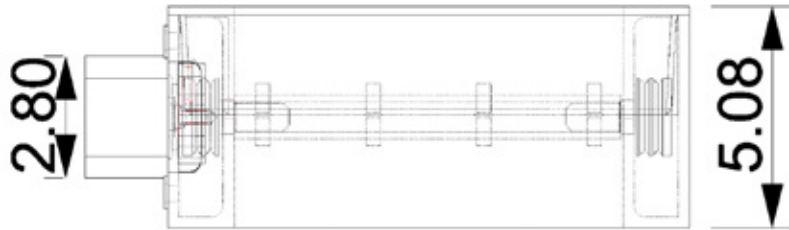
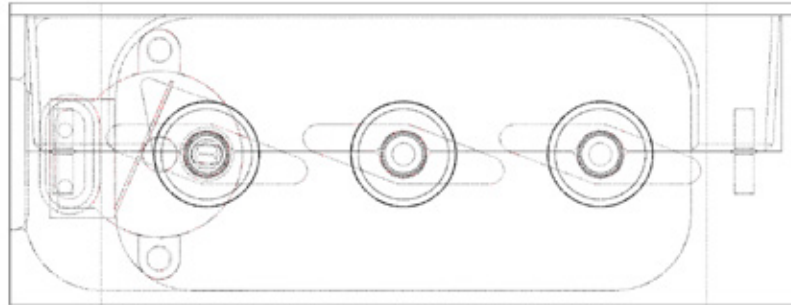
RESEARCH

Problem Description

Design a smart window shutter that reacts to sunlight. When the sun rises and shines the right amount of light at the window, the shutter opens automatically to gently light up your room and wake you up, and when the sun sets and the light goes away, the shutter will be closed to keep the room dark for a comfortable sleep.

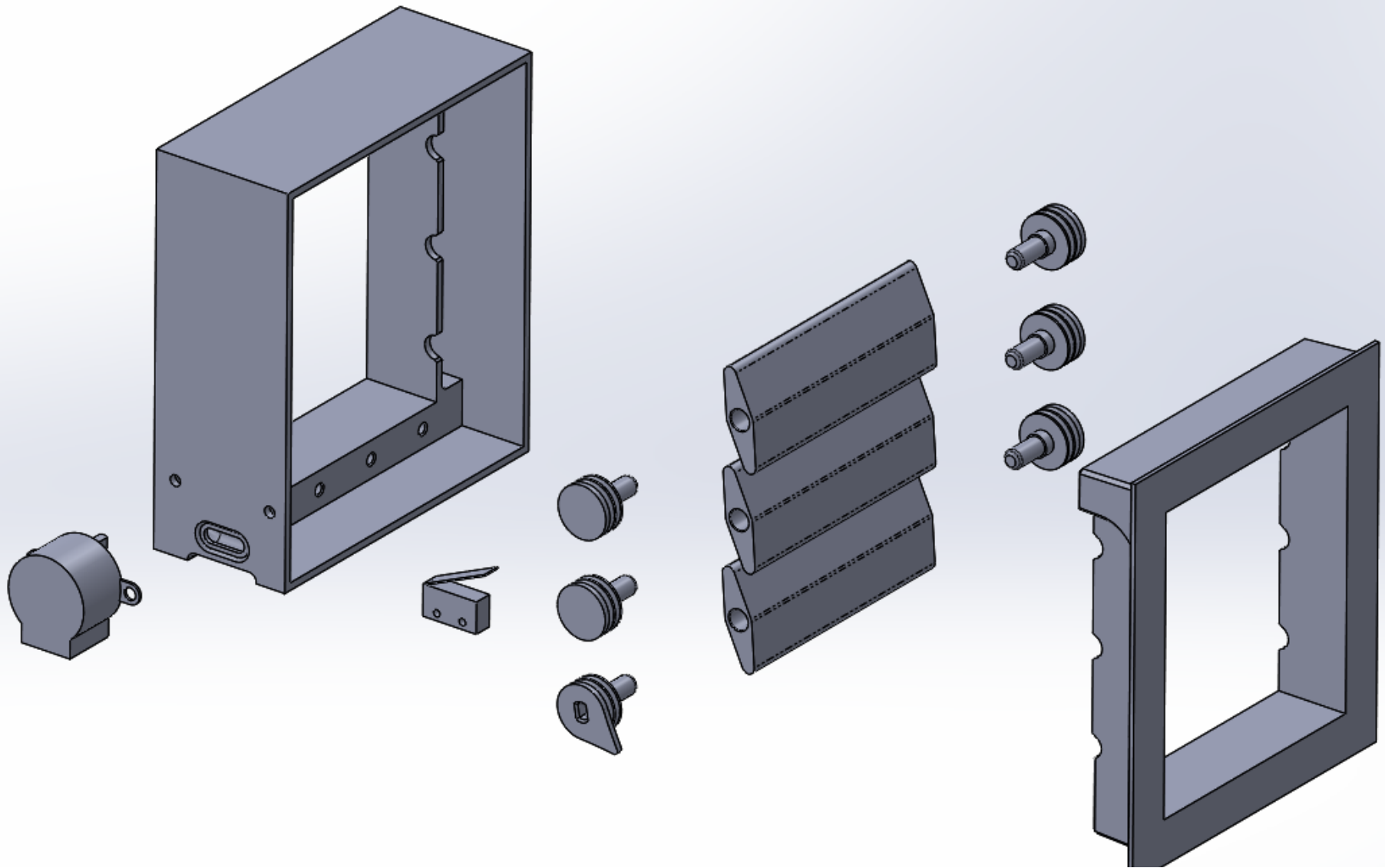
DEVELOPMENT

Window Shutter Design & Dimensions



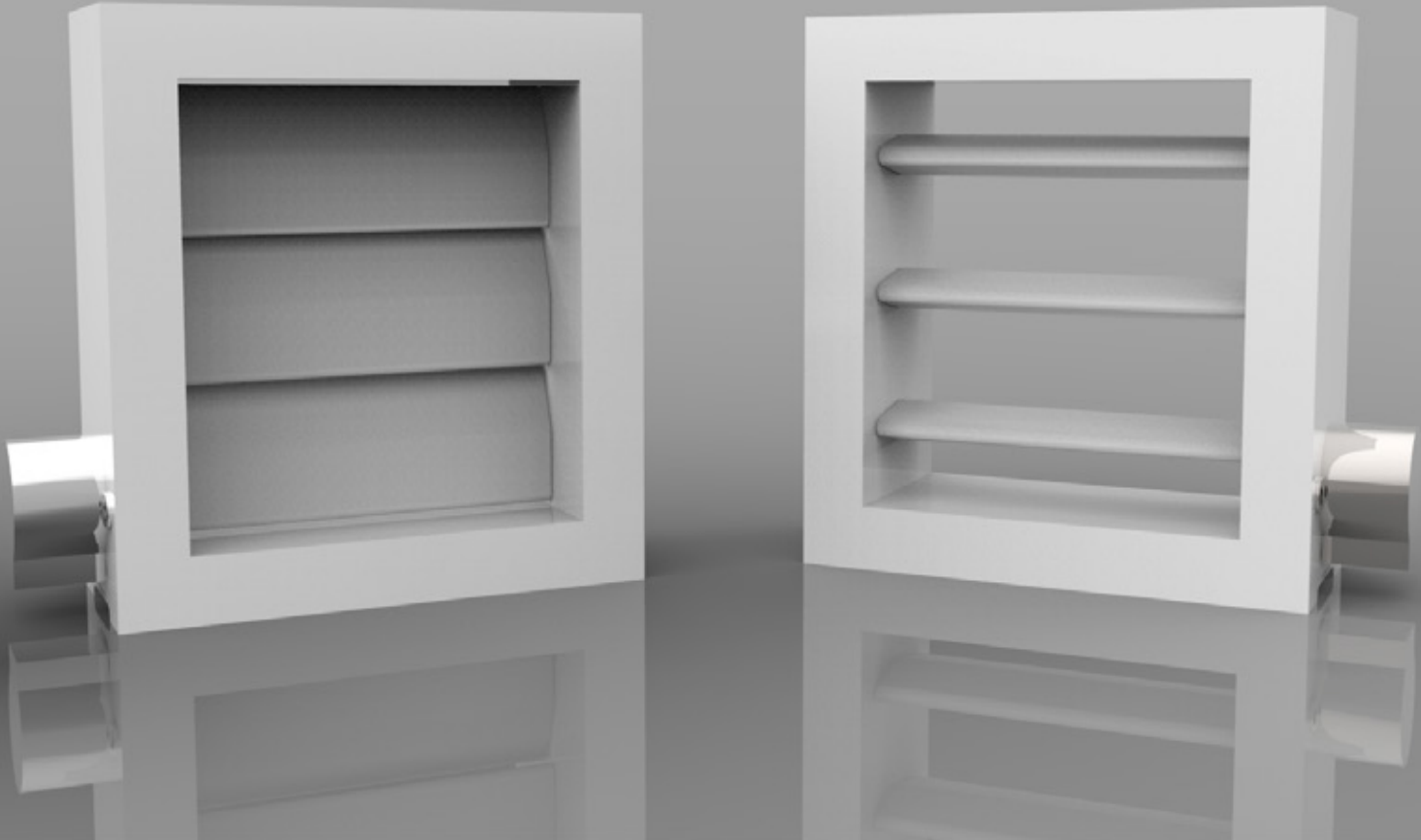
DEVELOPMENT

Exploded View



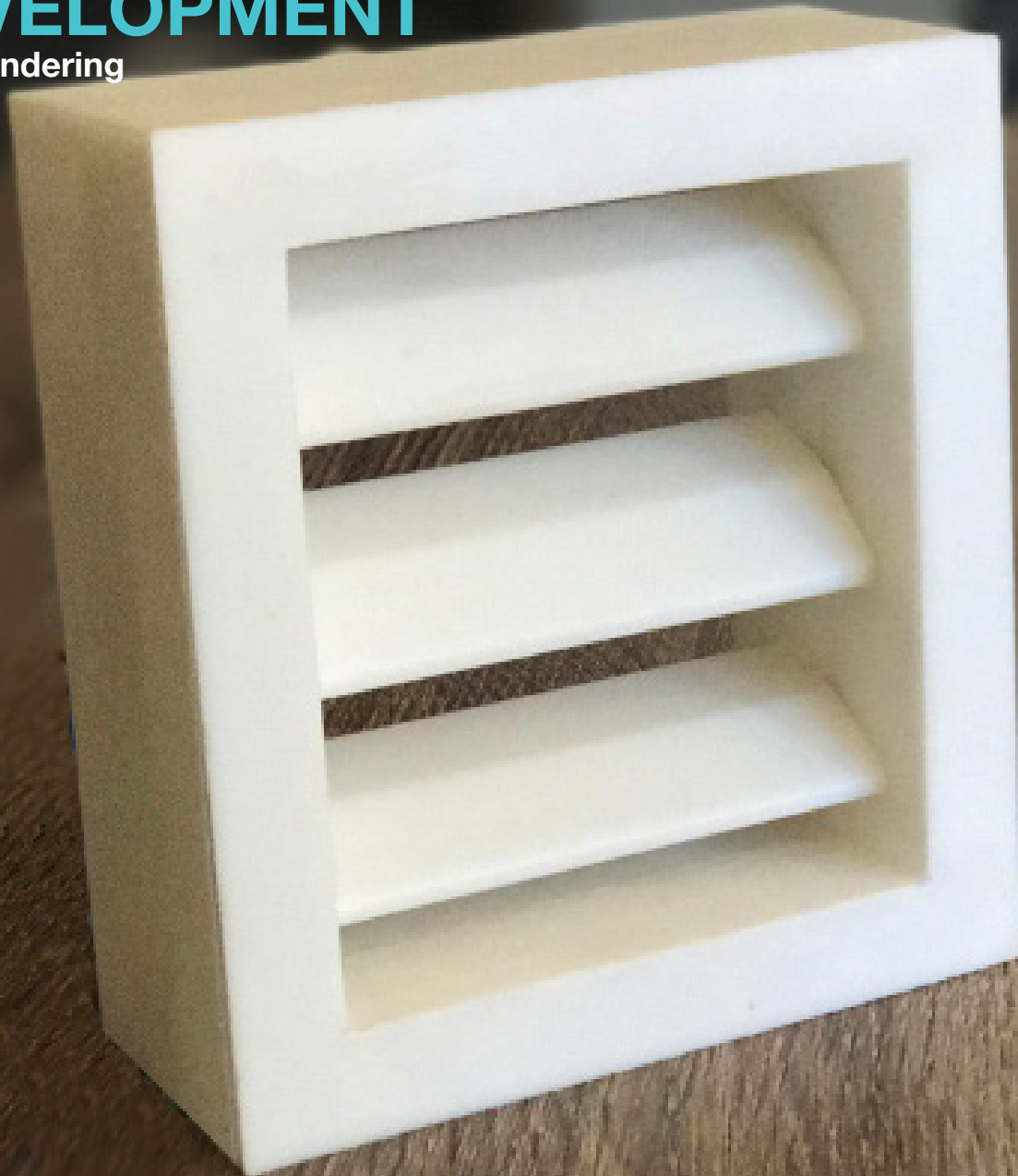
DEVELOPMENT

Final Rendering



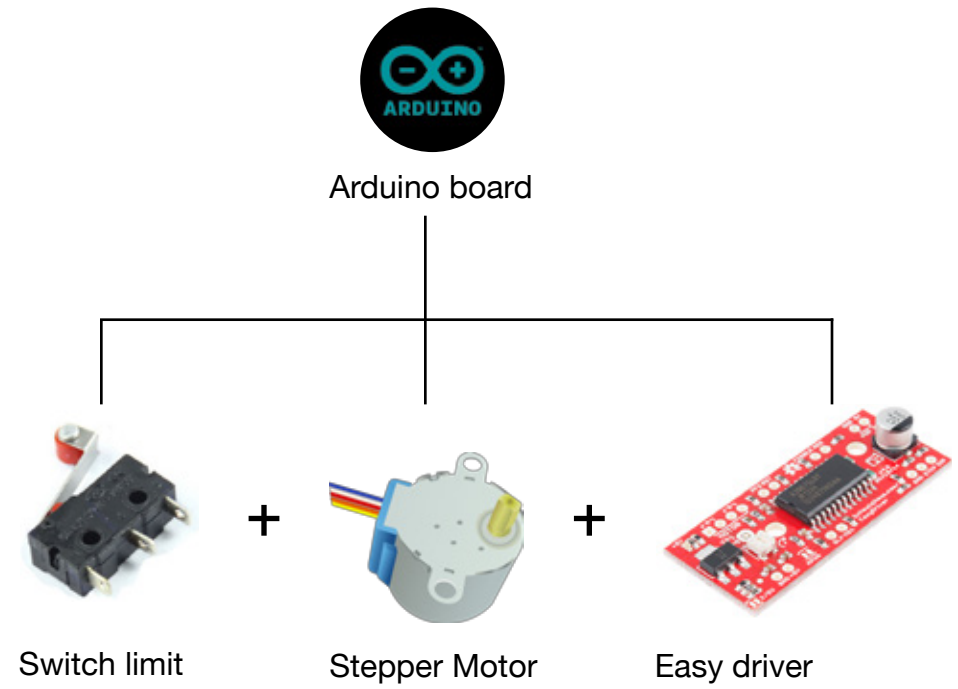
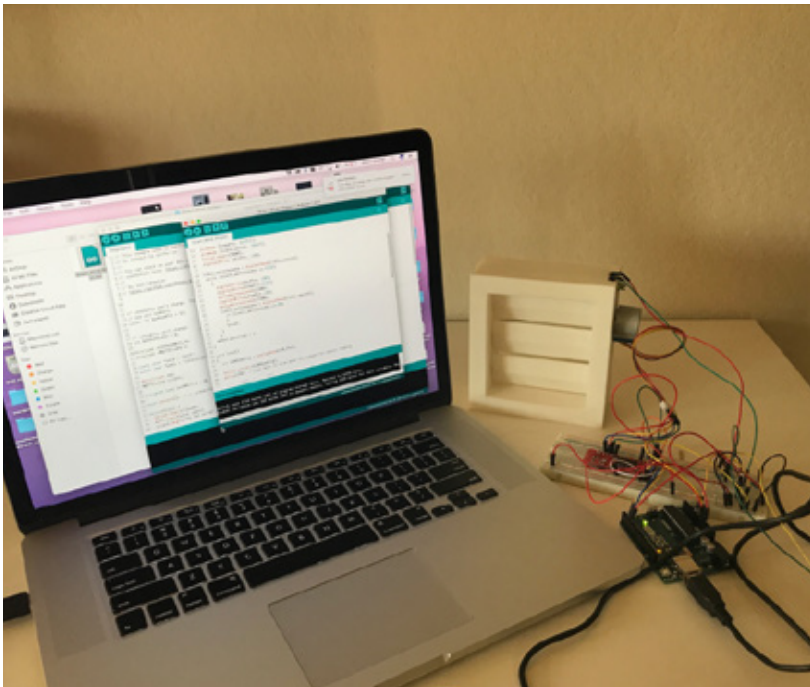
DEVELOPMENT

Final Rendering



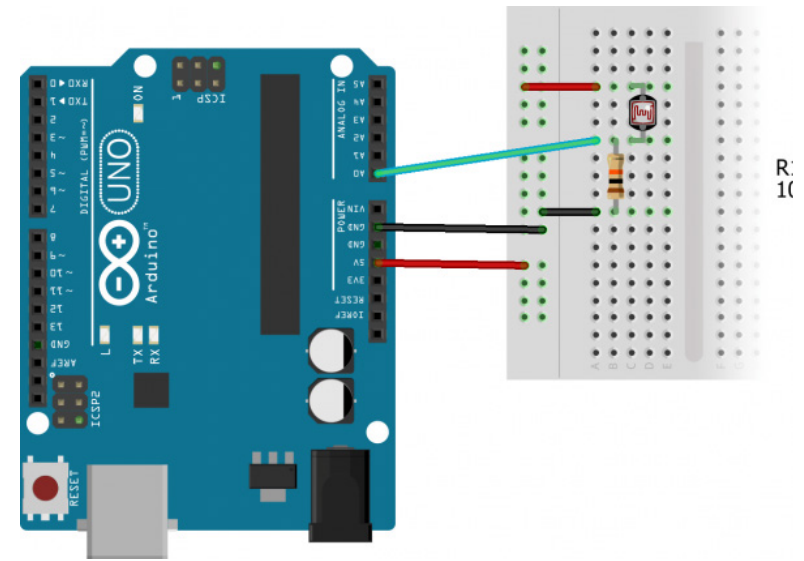
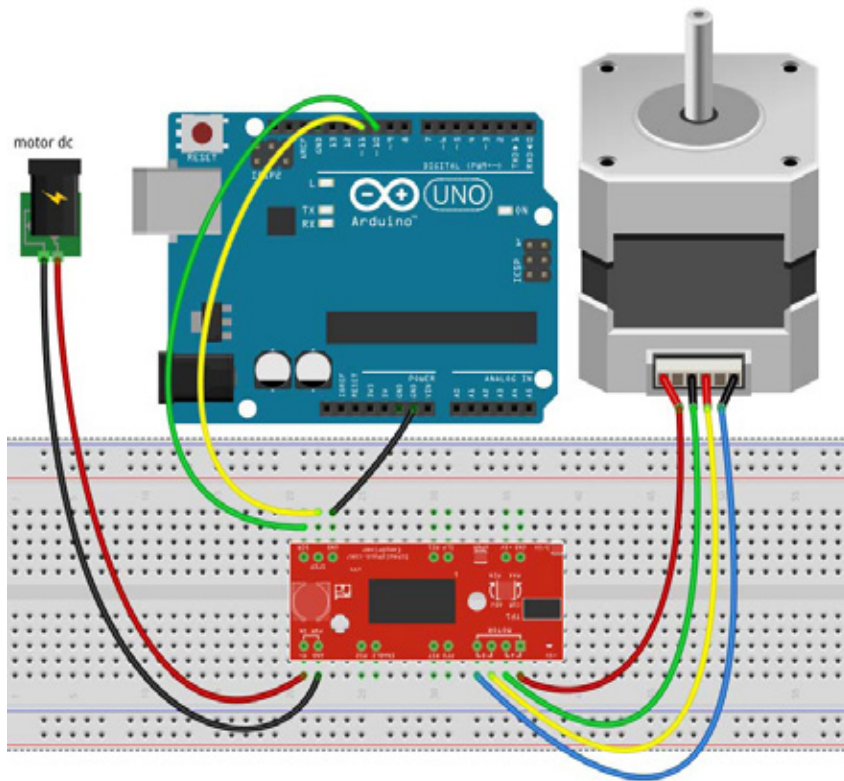
DEVELOPMENT

Tools for Execution



DEVELOPMENT

Circuit Diagram



DEVELOPMENT

Arduino Coding

```
Smart_Blind_Project
1 int LDR_Pin = A0; //analog pin 0
2 int motor_position=0;
3 int I;
4 int limit_switchstate=0;
5 #define stepPin 2
6 #define dirPin 3
7 #define limit_switch 4
8
9
10 void setup()
11 {
12     pinMode (dirPin, OUTPUT);
13     pinMode (stepPin, OUTPUT);
14     pinMode (limit_switch, INPUT);
15     Serial.begin(9600);
16     digitalWrite (dirPin, LOW);
17
18     limit_switchstate = digitalRead(limit_switch);
19     while (limit_switchstate == HIGH)
20     {
21         digitalWrite(dirPin, LOW);
22         digitalWrite(stepPin,HIGH);
23         delayMicroseconds(1500);
24         digitalWrite(stepPin,LOW);
25         delayMicroseconds(1500);
26         limit_switchstate = digitalRead(limit_switch);
27         if (limit_switchstate ==LOW)
28         {
29             break;
30         }
31     }
32 }
```

DEVELOPMENT

Branding

LOGO DESIGN



COLOR PALLET



DEVELOPMENT

Branding

Video(Project Implementation)

<https://vimeo.com/217961585>

Project Page In Portfolio Website

<http://baharrdesign.com/portfolio/iot.html>