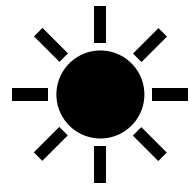


Talking and Dancing |
FLowerblume |



Input



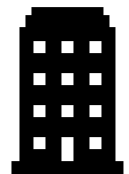
Environment

Process

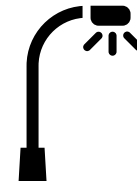


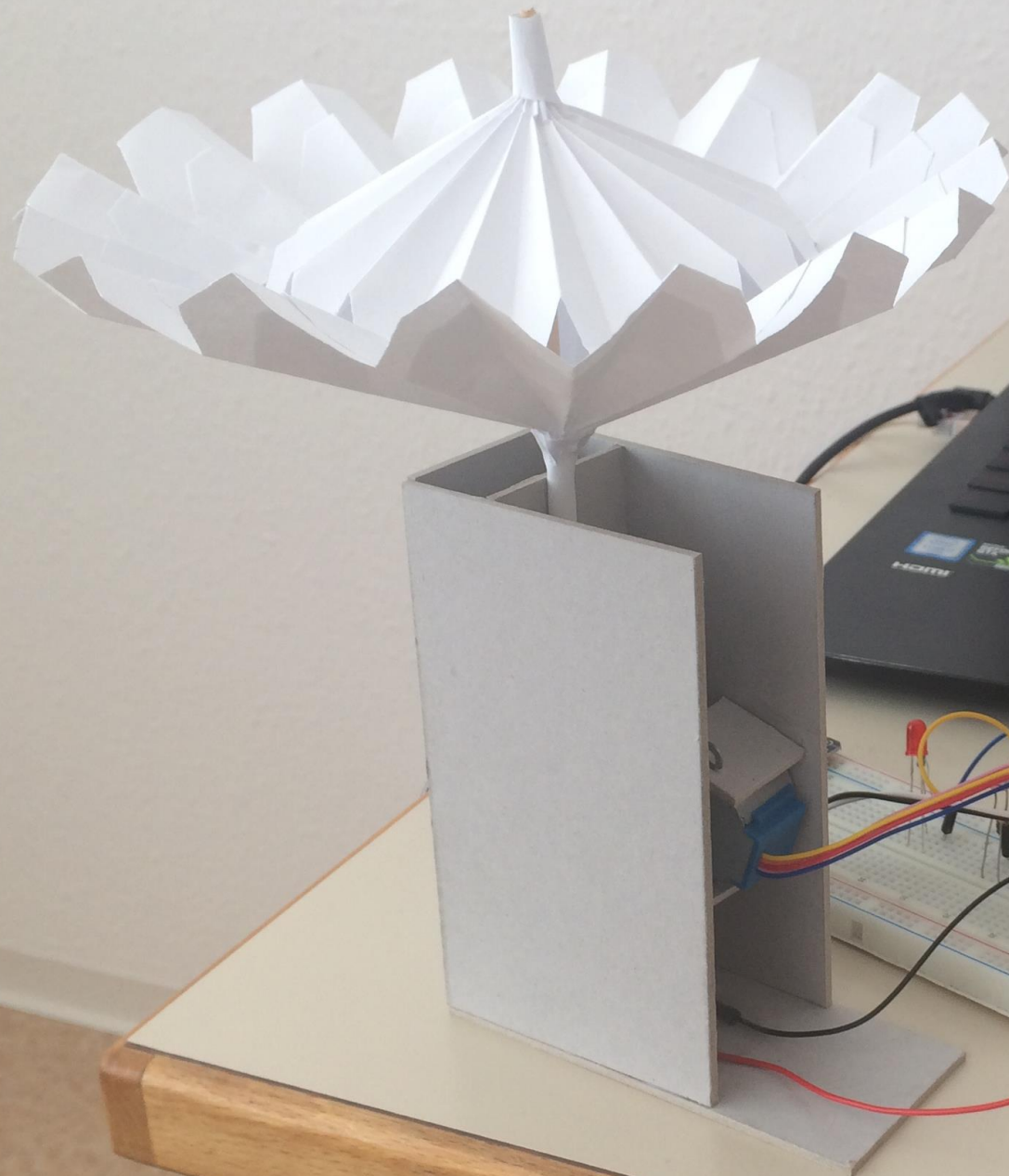
System

Output



Devices

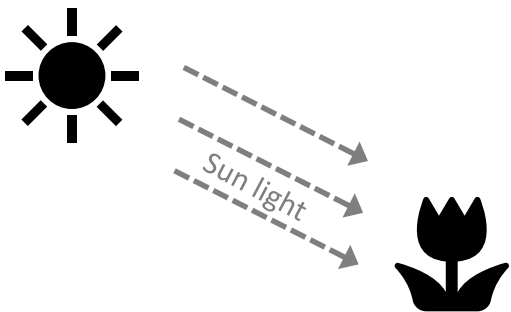




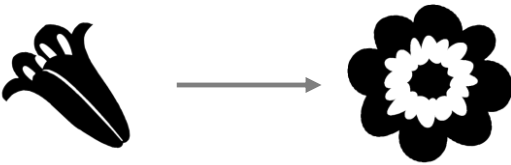
Project Flowerblume

This project is from Tangible Electronic course of Winter Semester 2016/17. This time its concept is used and improved as one of the installation's components.

Concept of Flowerblume



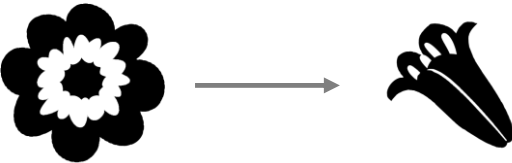
When there's light



bud

blossom

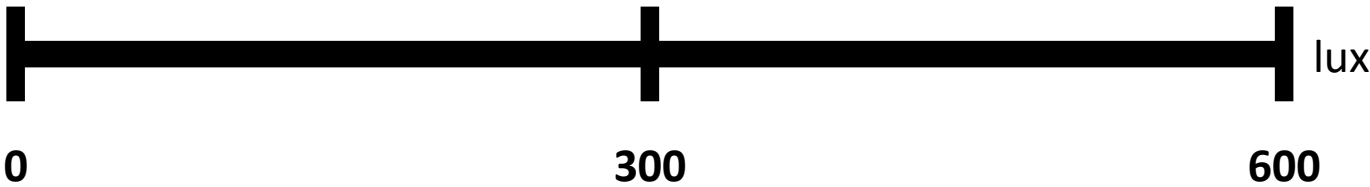
When there's no light

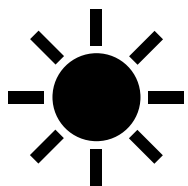


blossom

bud

The brightness of the room affect how flowerblume bloom





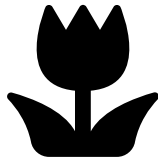
Indoor Lighting



Flowerblume 1



Relative Humidity



Flowerblume 2

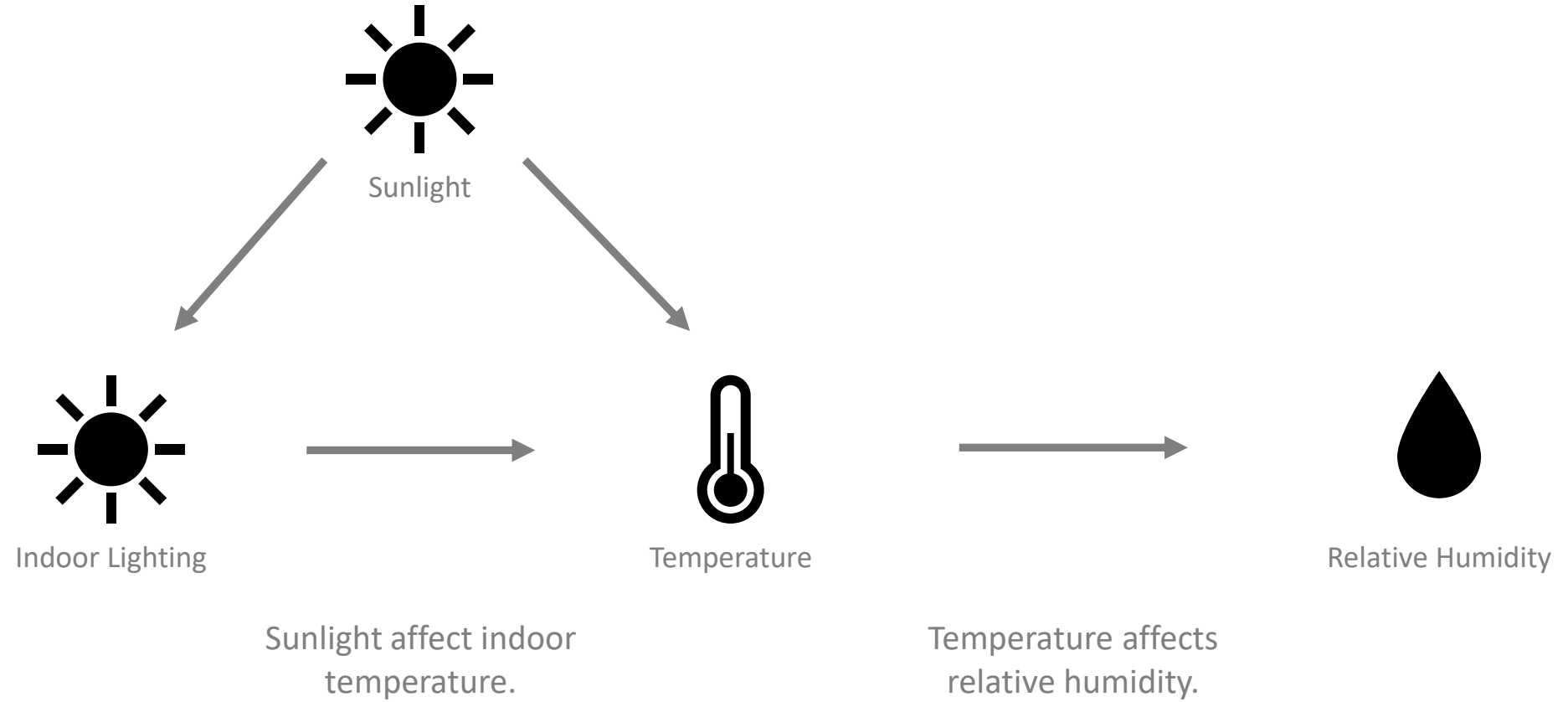


Temperature

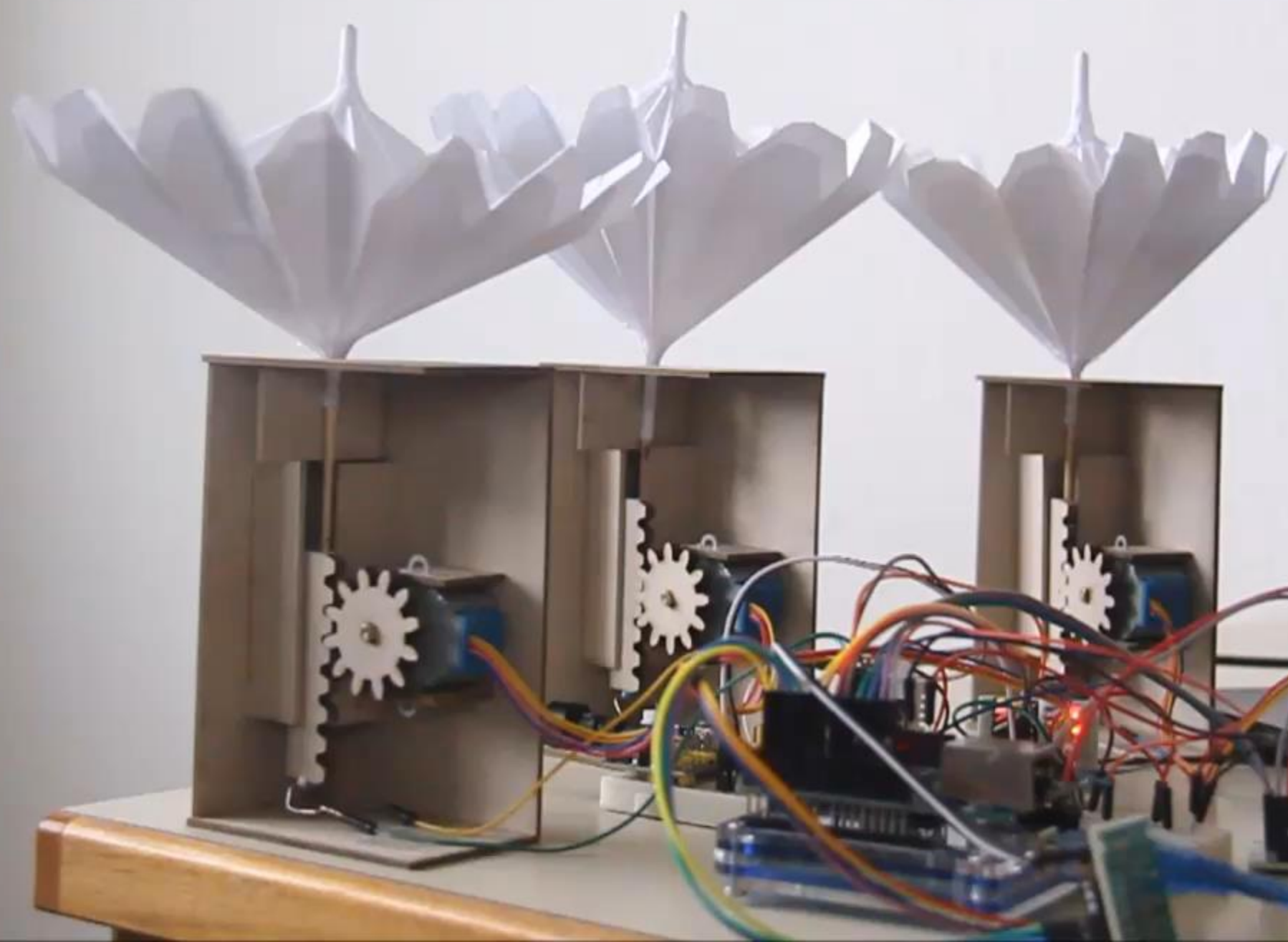


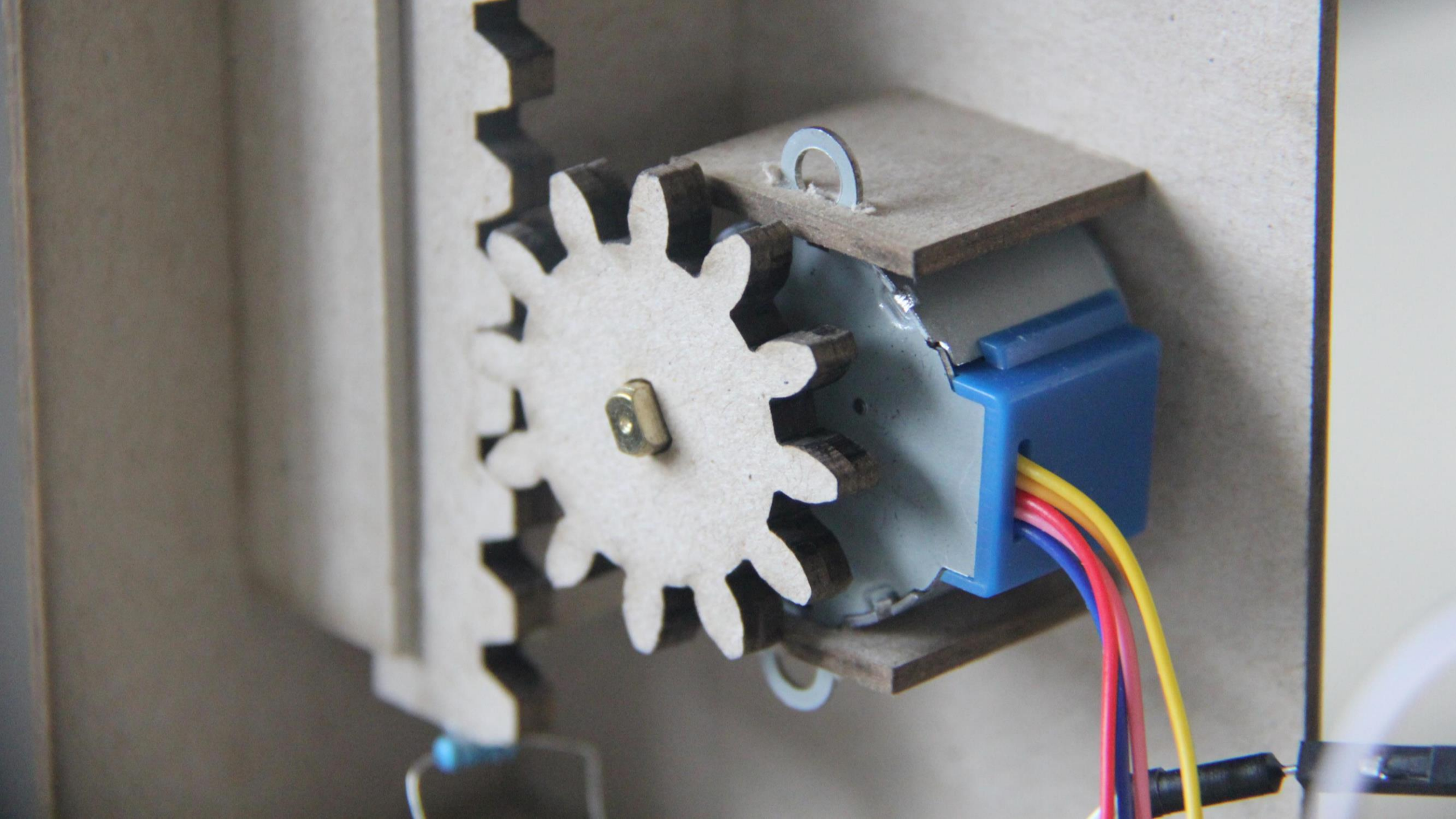
Flowerblume 3

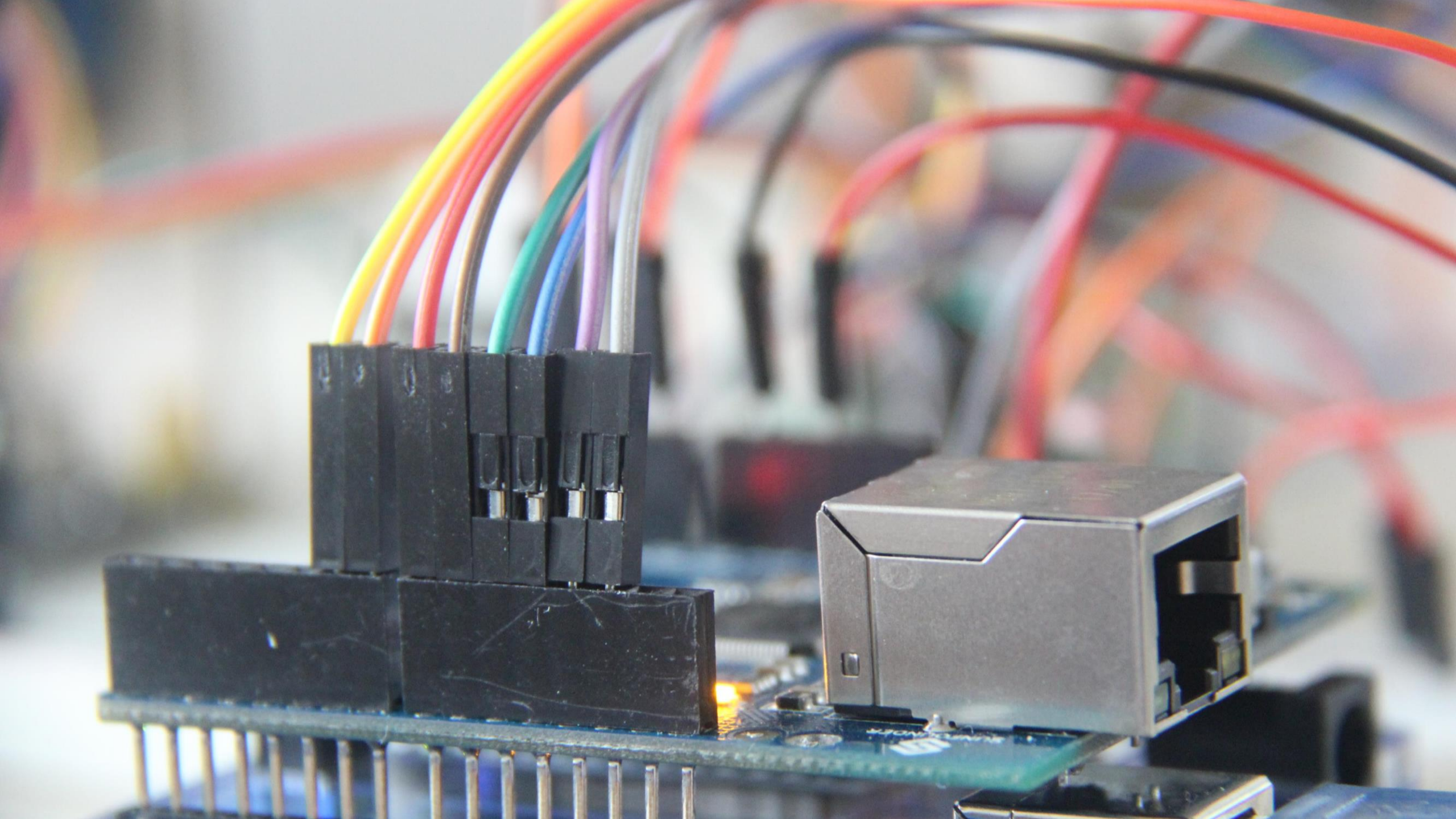
Instead of one, three flowerblumes are used to measure several elements which are important for flower to grow.

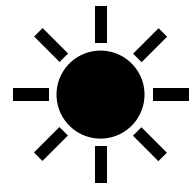


Illumination, temperature, and relative humidity are also important elements to determine indoor thermal comfort level.

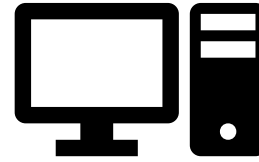




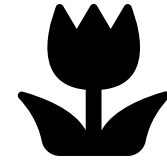




Light Sensor



System



Flowerblume

Automatic and Manual Control

Let the Arduino do the calculating or manually control the flowerblume

Monitoring Value of the Sensor

This is for recording the data input in light sensor and for future research purpose

Basic and Advance Interface

Improving GUI of the software for both beginner and expert users



Local network



Cloud system



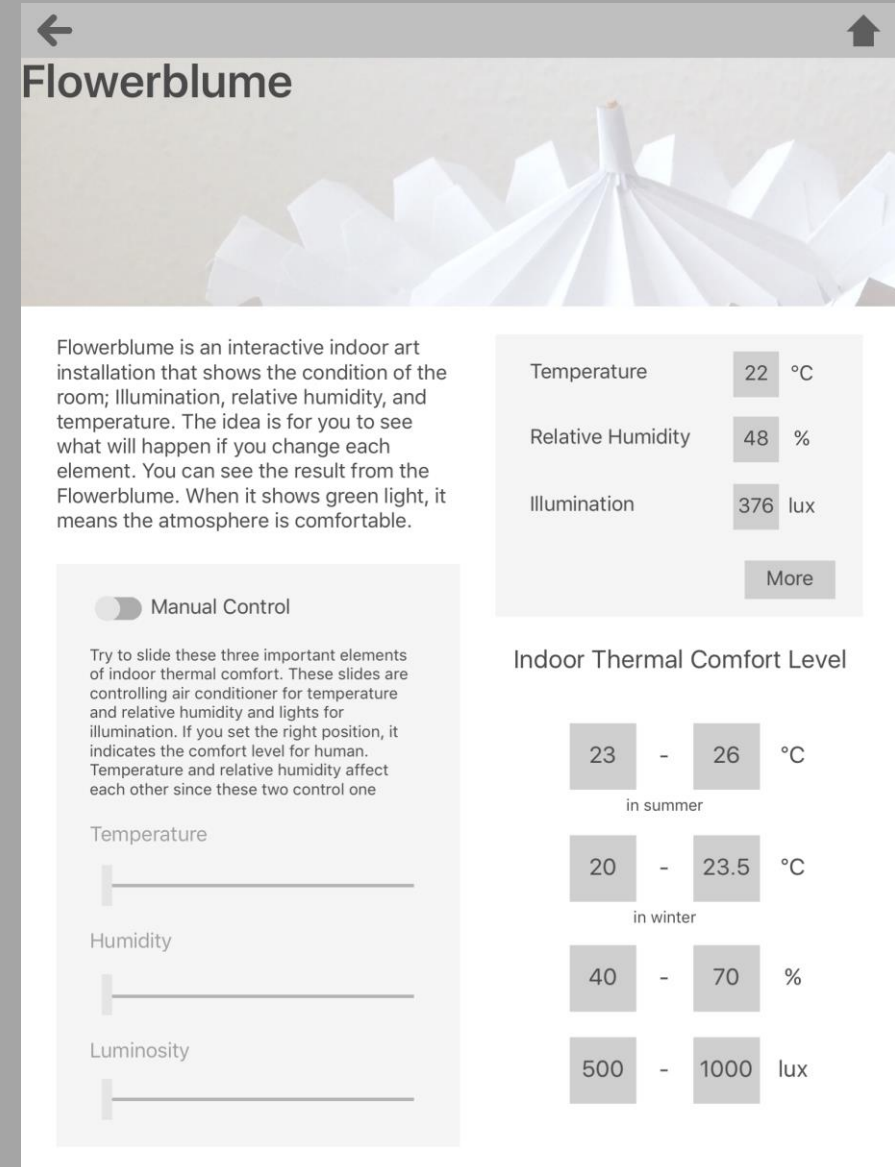
Smartphone



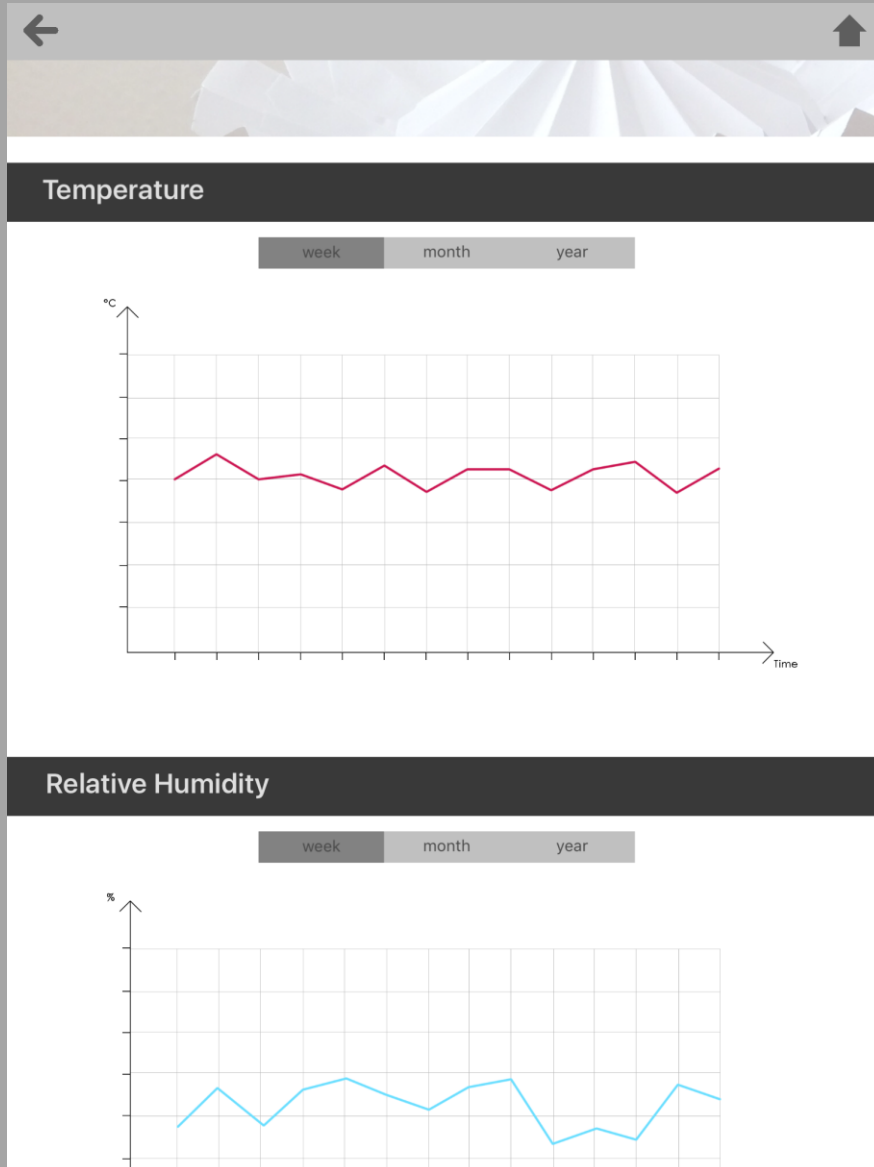
Smartphone



Home Screen. This app is basically not only for flowerblume, but also all features in building.



Basic UI.



Advance UI.



For now flowerblume can be controlled manually by Blynk. It also shows real time data from the sensors.



Automatic Control Mode

In this mode, LED will emit colored light depending on the condition of the room or real-time data. Red means bad and green means good. Comfort level of each value determine which value is bad or good.

Manual Control Mode

This mode is actually not controlling the flowerblume directly. The drag bar in the app is for changing other devices that affect each value. For example, temperature and humidity are affected by air conditioner. After changing the value, the LED will show the result's color.

