

okaeri

おかえり



tackling homesickness

As an International student, I have had a lot of experience with moving around, and trying to adapt to new environments so that I can call them “home”. Luckily, I adapt relatively easily to new places, but many of my friends have expressed several of their problems to me, such as not being able to sleep at night, waking up feeling bad, bad sleeping patterns, not feeling rested after sleeping. This then affects a person’s lifestyle, making them less productive, less happy, and always feeling mentally and physically unwell. This problem does not only apply to international students, since it always requires adapting when you are not sleeping in the warmth of your home that you grew up in. Different people deal with this problem in different ways, some bring along a little something that reminds them of home and some just endure through it until their bodies get used to the new environment.

What I wished that existed was something that would create an ambience and sets the environment of the bedroom to be a similar to home as possible. I picked the bedroom since it is the most intimate room in a living space, and also the space in which people feel the most homesick since they are alone.

existing products



Phillips “Wake Up Light”

The Wake Up Light creates a coloured sunrise simulation which wakes you up gradually with natural light. At night, the light slowly dims to gently send you back to sleep. There is also a choice of five different alarm sounds.



“Lightsleeper”

This is a night light created to help cure insomnia. It projects a light onto the ceiling, which moves in a controlled, circular and soothing manner. Users should follow the light with their eyes, and this will relax their mind and help them sleep.



“Cure for Homesickness”

This is a design concept by Sapp Cheng, a student from Singapore. It is inspired from a first aid kit, but instead of being a medical one, it is filled with Singaporean comfort foods, for example, this one is a kit to make “Bah Kut Teh”.

“おかえり” (okaeri)

is a Japanese phrase which means “welcome home”. The Japanese use this phrase as a reply to when the person who is returning home says “ただいま” (tadaima), which means “I’m home”. I would like my product to create the same kind of feeling for the users - as if there is someone waiting to give them a warm welcome back, so they do not feel alone, and also so there it creates a sense of familiarity in a new space.

5 senses:

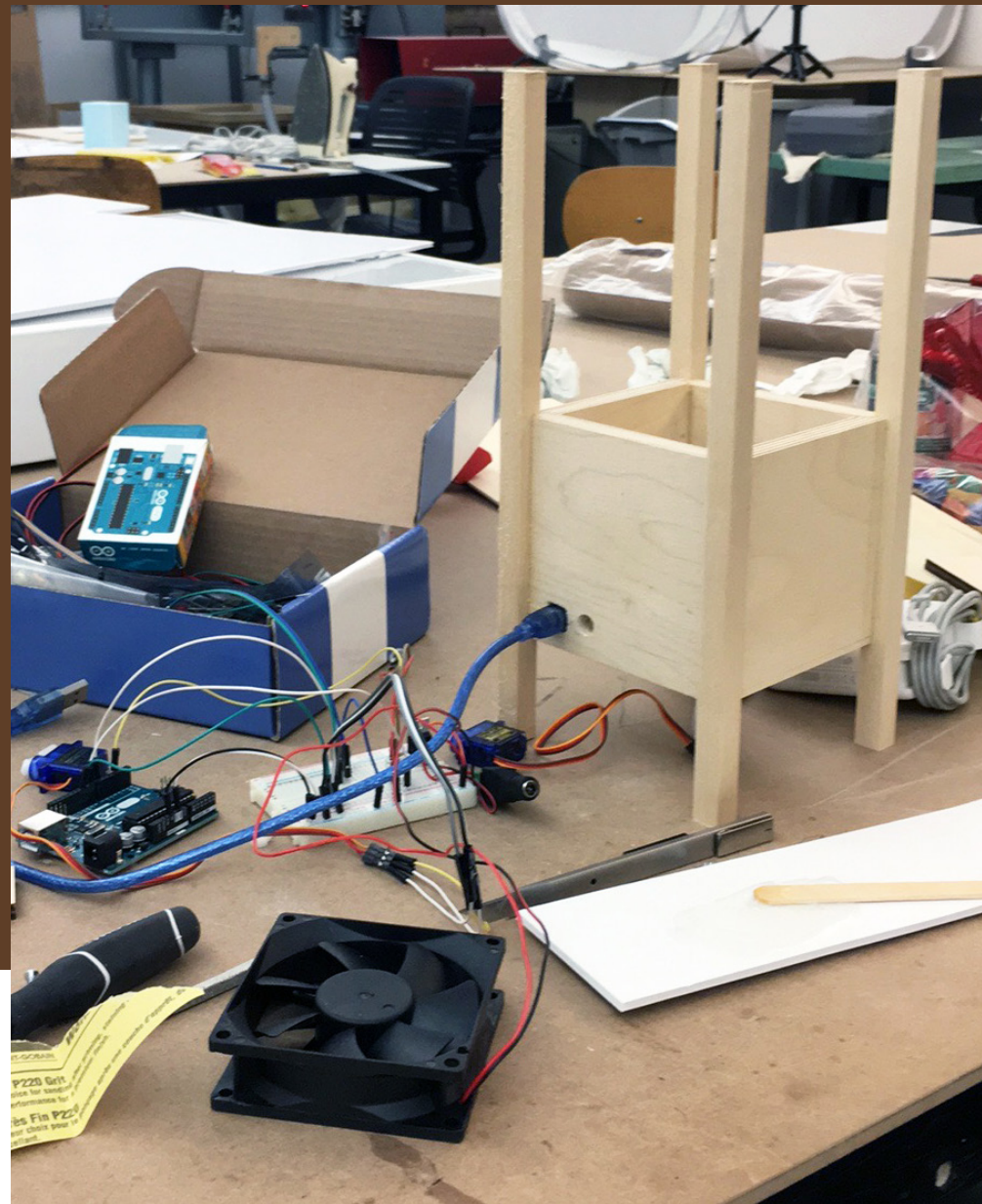
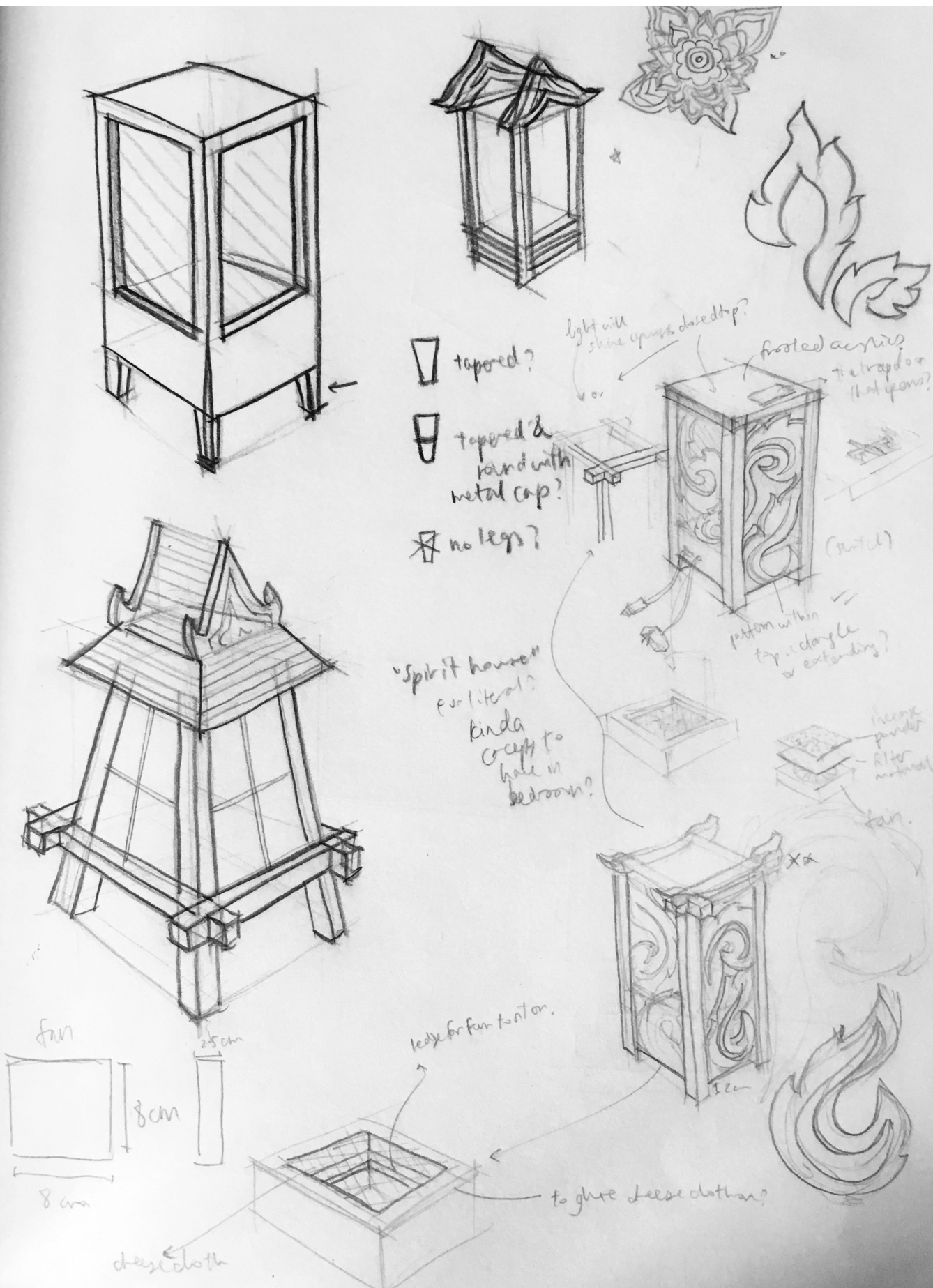
Touch, Sight, Hearing, Taste and Smell. By stimulating at least three of these senses, a more full of an experience users can be immersed by the ambience that I am trying to create.

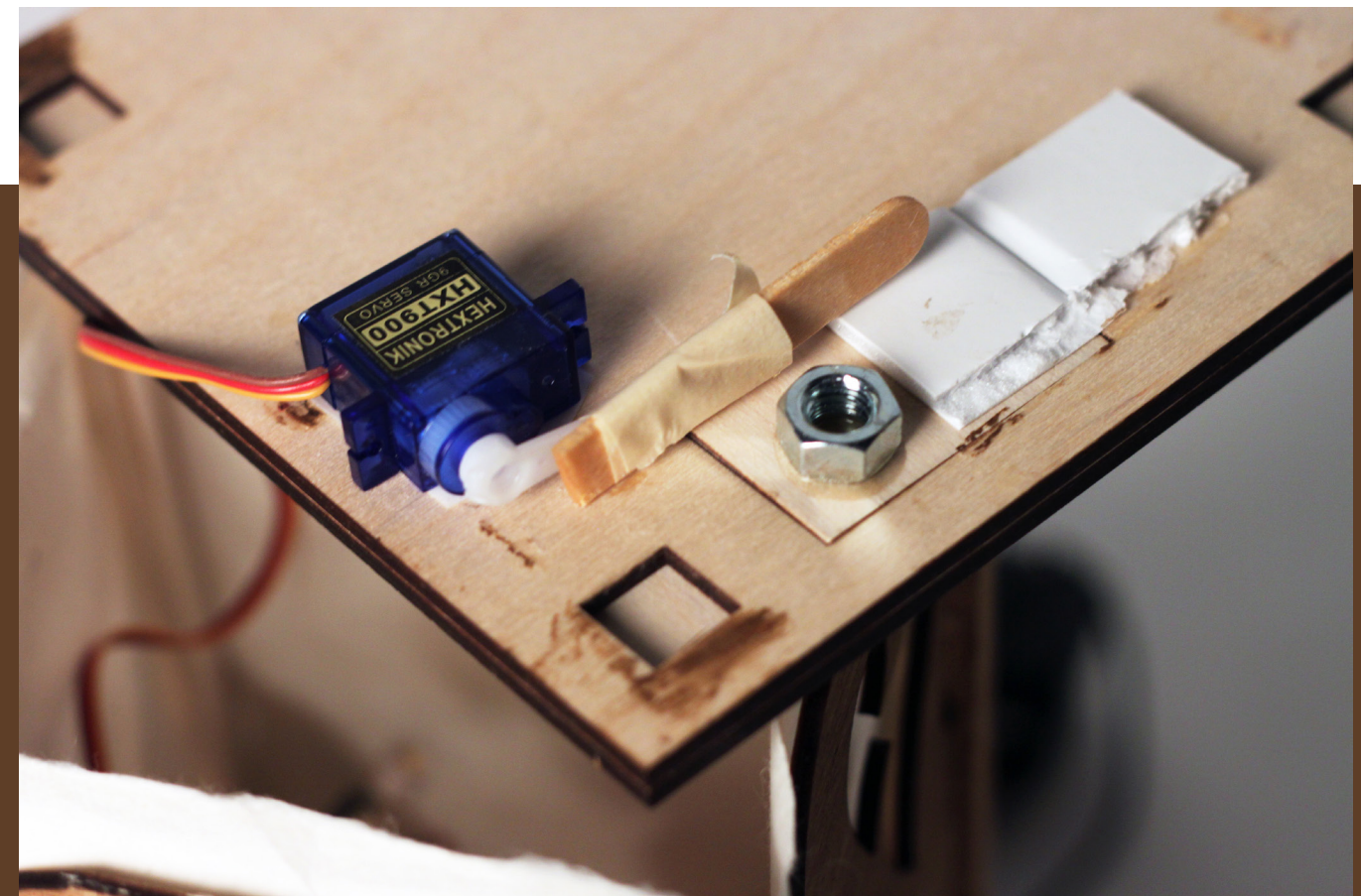
2 modes:

Similarly to Phillips “Wake Up Light”, I would like my product to help people easily go to sleep at night, and help them wake up happy too.



Process:





```
import org.firmata.*;
import cc.arduino.*;

import processing.serial.*;

JSONObject json;
Arduino arduino;

int servoPin = 10;
int fanPin = 3;
int pos = 0;
int counter = 0;
int fanPos = 0;
int ledPin = 8;
int ledPin1 = 7;
int ledPin2 = 6;
int ledPin3 = 5;
int ledPos = 0;

String url = "https://www.kimonolabs.com/api/7kjh48w?apikey=DkcFrlrgrTtZGKAg4om04RjwpgPE2BMw";

void setup() {
  arduino = new Arduino(this, Arduino.list()[2], 57600);
  arduino.pinMode(servoPin, Arduino.SERVO);
  arduino.pinMode(fanPin, Arduino.OUTPUT);
  size(640, 360);
  loadData();
}

void draw() {
  // arduino.analogWrite(fanPin, fanPos);
  arduino.servoWrite(servoPin, pos);

  // println(pos);
  // println("fan: " +fanPos);
}
```

```
void loadData() {
  json = loadJSONObject(url);
  print(json);

  String todaysDate = json.getString("thisversionrun");
  String delims = "[ ]+";
  String[] day = todaysDate.split(delims);
  //date of the month
  println("month: " +day[1]);
  println("date:" +day[2]);

  JSONObject results = json.getJSONObject("results");

  JSONArray jsonEvents = results.getJSONArray("collection1");
  for (int i = 0; i < jsonEvents.size (); i++)
  {
    JSONObject collection1 = jsonEvents.getJSONObject(i);
    int index = collection1.getInt("index");

    if (index == 1)
    {
      int feels = collection1.getInt("feels");
      String wind = collection1.getString("wind");
      String[] windSplit = wind.split(" ");
      int windValue = parseInt(windSplit[1]);
      String condition = collection1.getString("condition");
      String precipitation = collection1.getString("precipitation");
      int precipValue = parseInt(precipitation);

      println("feels like: " +feels);
      println("wind value: " +windValue);
      println("rain value: " +precipValue);

      if ((feels <= 60) && (windValue >= 4)) { //&& ((condition == "Cloudy") ||
        //(condition == "Mostly Cloudy") || (condition == "Showers") || (condition == "AM Showers") ||
        //(condition == "PM Showers"))
        println("sad weather");
        if (pos !=180) {
```

```
// (condition == "PM Showers"))
      println("sad weather");
      if (pos !=180) {
        fanPos = 255;
        pos = 180;
        ledPos = 255;
        arduino.analogWrite(fanPin, fanPos);
        arduino.digitalWrite(ledPin, ledPos);
        arduino.digitalWrite(ledPin1, ledPos);
        arduino.digitalWrite(ledPin2, ledPos);
        arduino.digitalWrite(ledPin3, ledPos);
      }
      println("box opened");
      println("fan pos: "+fanPos);
      delay(20000);
      if (pos != 0) {
        pos = 0;
        fanPos = 0;
        ledPos = 0;
        arduino.analogWrite(fanPin, fanPos);
        arduino.digitalWrite(ledPin, ledPos);
        arduino.digitalWrite(ledPin1, ledPos);
        arduino.digitalWrite(ledPin2, ledPos);
        arduino.digitalWrite(ledPin3, ledPos);
        println("box closed");
        println("fan pos now: " +fanPos);
      }
    }
  }
}
```

First Iteration:



For the first iteration, I made it customized for myself, which is why it looks very Thai. I was inspired by paper lanterns and Thai traditional patterns. This iteration grabs Pittsburgh's API and with a combination of different inputs (rain amount, temperature, wind speed.. etc), it calculates when I am most likely to feel "sad"/"homesick". When it detects that I am sad/homesick, the fan starts blowing at the incense sticks inside, and the servo opens the trap door which lets the smell out. The warm light LEDs inside also turn on, and casts the soft shadows of the Thai patterns on the walls. This iteration did not work, since the incense sticks were not strong enough with just the fan blowing on them.