Mini Garden

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Contents

- Plants
- Model
- Coding/Circuit

Observations:

- Water is strongly needed
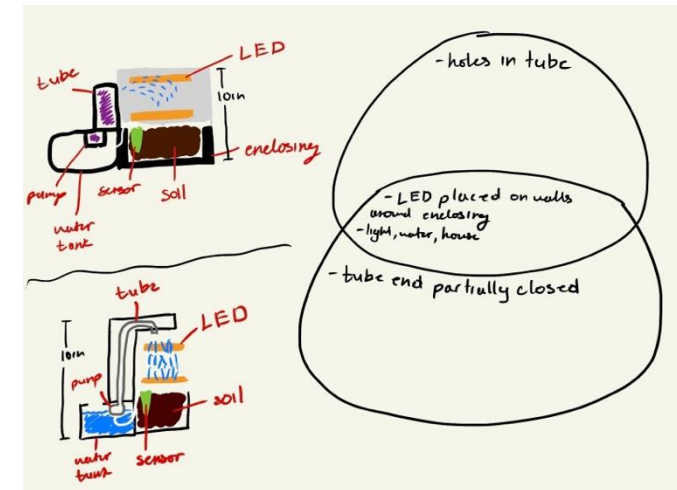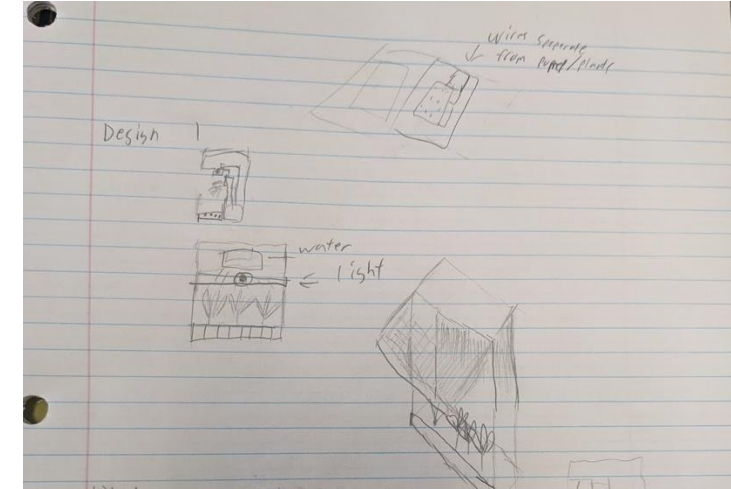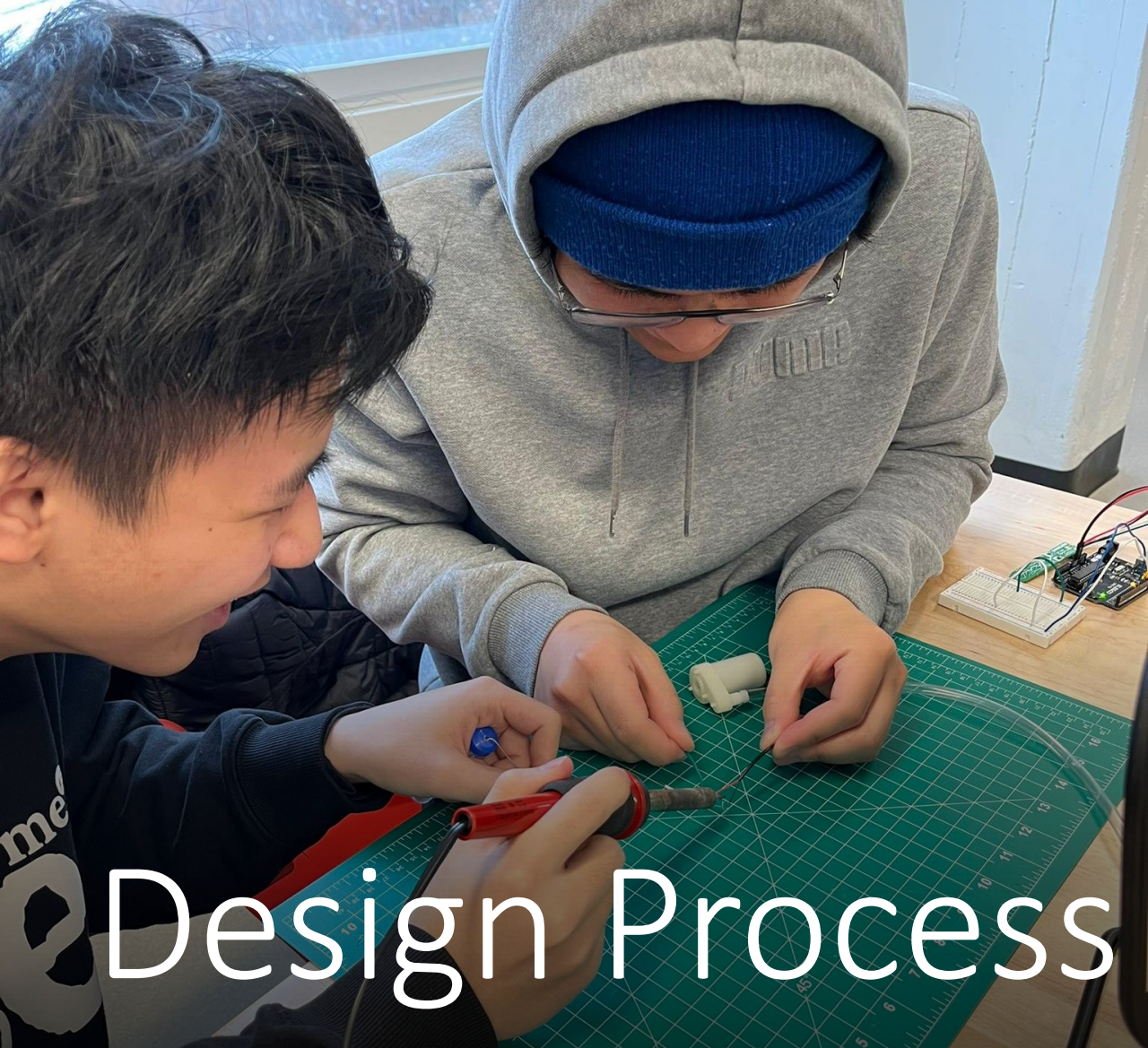- Grow in the direction where there is sunlight

Conditions

- 1. Enough Water
- 2. Enough Sunlight

Design Process

- Went through multiple different models
- Analyse possible problems and choose the best for the project.
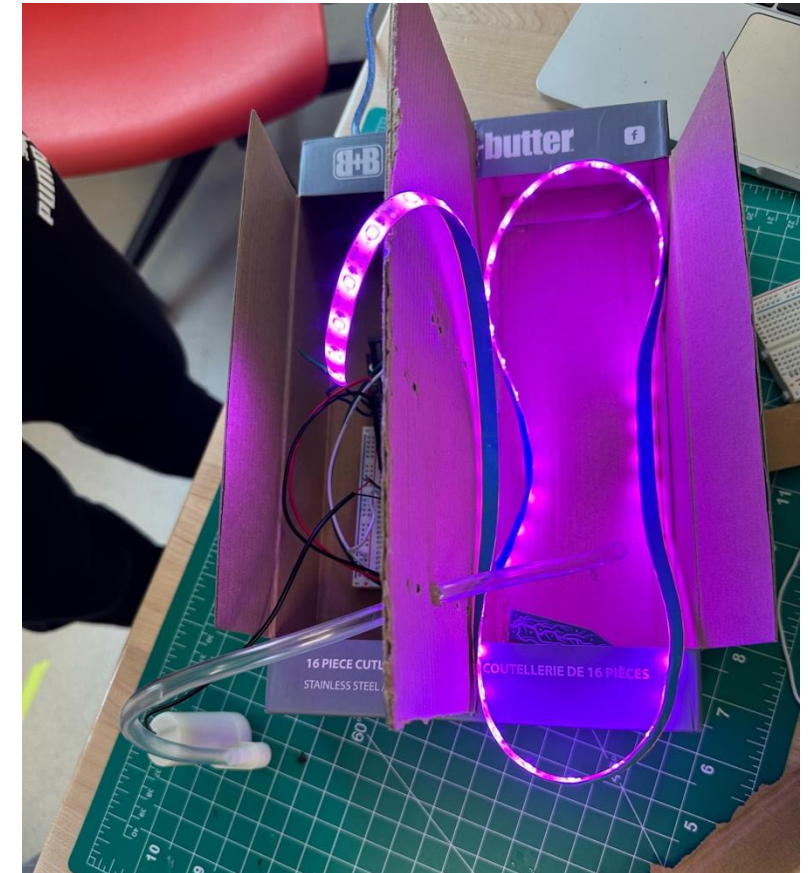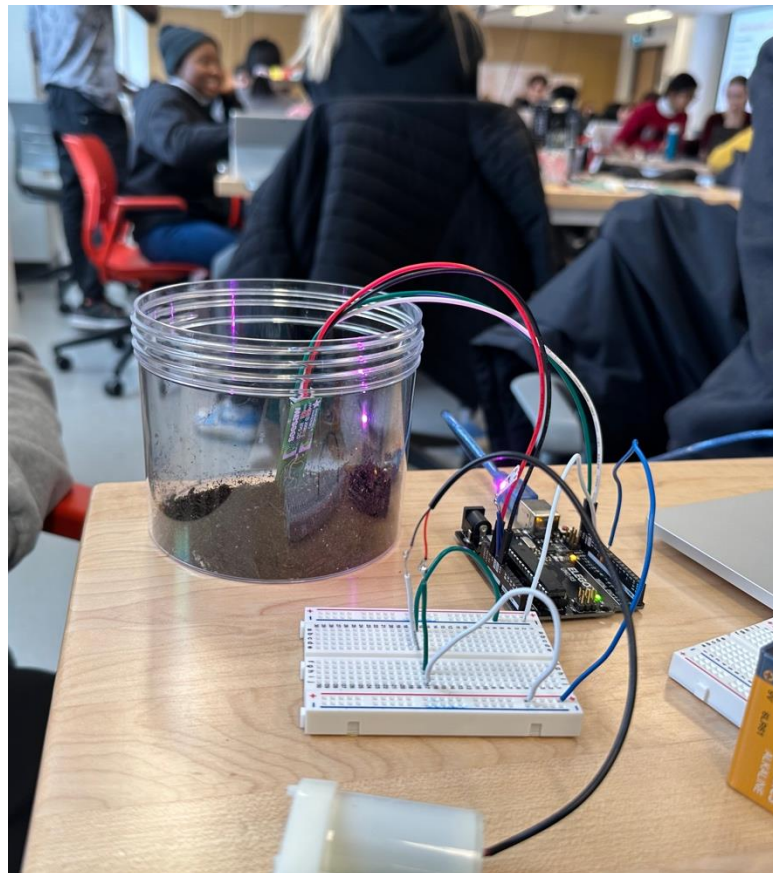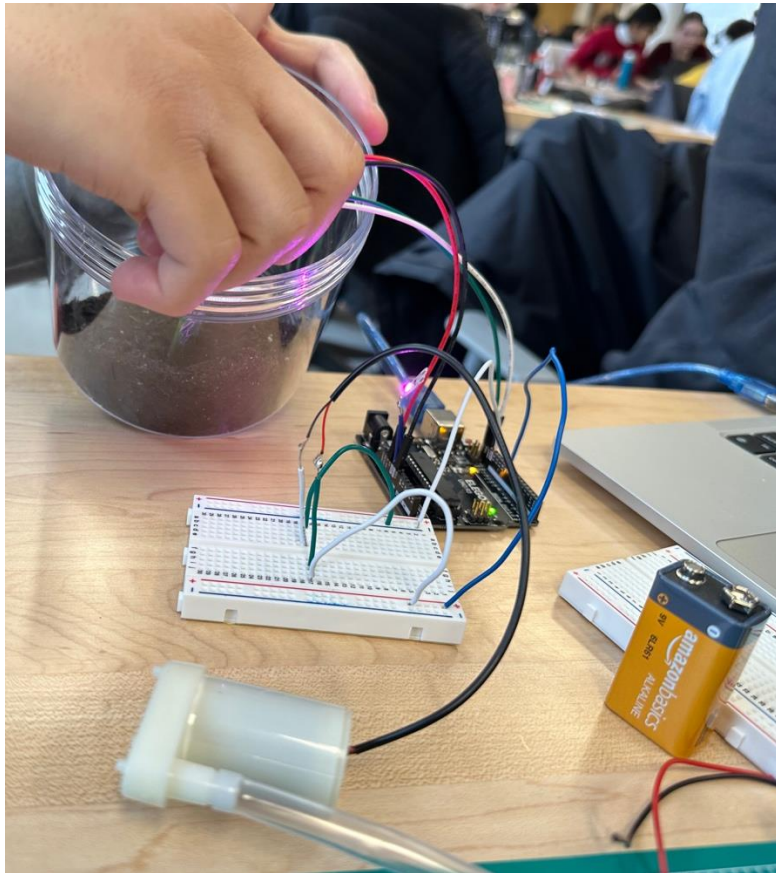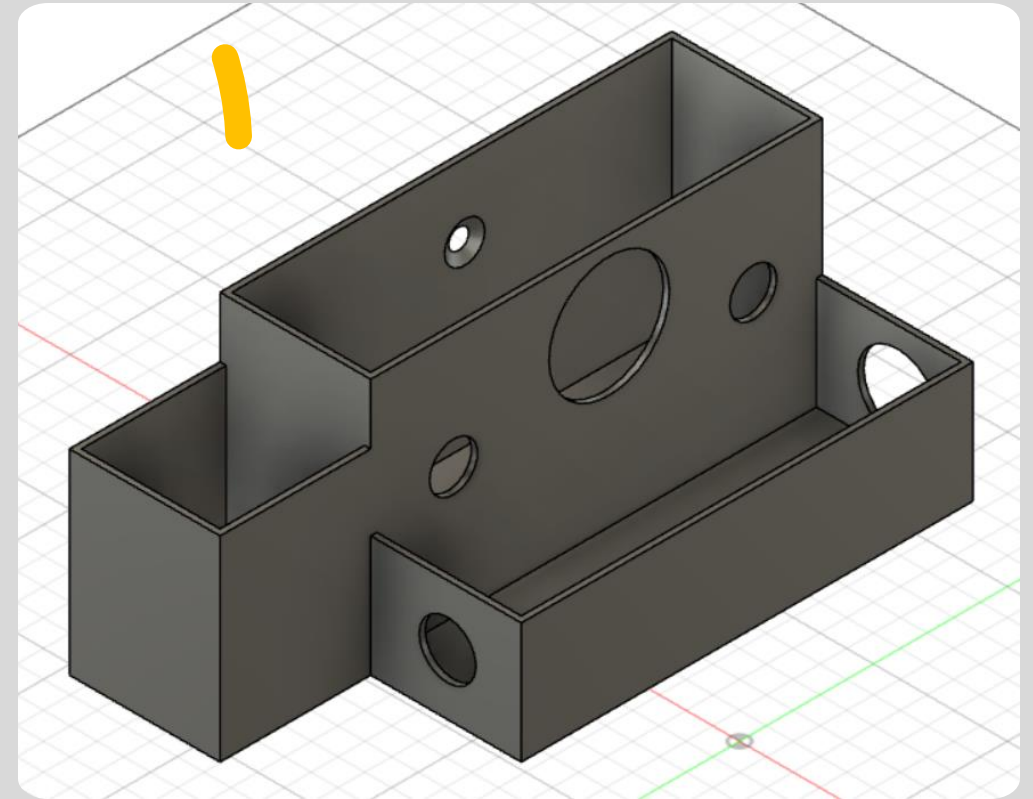- Greatly considered the plant's needs.

Design Process

Design Process

Model

- Incorporated multiple design ideas.

- Electronics completely safe from water.

- Open for the plant to grow.

Code.
and wiring

```cpp
#include "Adafruit_seesaw.h"

Adafruit_seesaw ss;

int pump = 9;
int on = 255;
int off = 0;
int pvalue;
const int pResistor = A0;
const int ledPin=8;


void setup() {
  Serial.begin(115200);

  pinMode(ledPin, OUTPUT);
  pinMode(pResistor, INPUT);

  Serial.println("seesaw Soil Sensor example!");
  if (!ss.begin(0x36)) {
    Serial.println("ERROR! seesaw not found");
    while(1) delay(1);
  } else {
    Serial.print("seesaw started! version: ");
    Serial.println(ss.getVersion(), HEX);
  }
  pinMode(pump, OUTPUT);
}
```

```cpp
  tempC = ss.getTemp();
  int16_t capread = ss.touchRead(0);

  Serial.print("Temperature: "); Serial.print(tempC); Serial.println("*C");
  Serial.print("Capacitive: "); Serial.println(capread);
  delay(400);

  if (capread <= 400){
    analogWrite(pump, on);
  }
  else{
    analogWrite(pump, off);
  }

  pvalue = analogRead(pResistor);
  Serial.print("\n Photoresistor: "); Serial.println(pvalue);

  if (pvalue > 800){
    digitalWrite(ledPin, LOW);
  }
  else{
    digitalWrite(ledPin, HIGH);
  }
  delay(500);
```
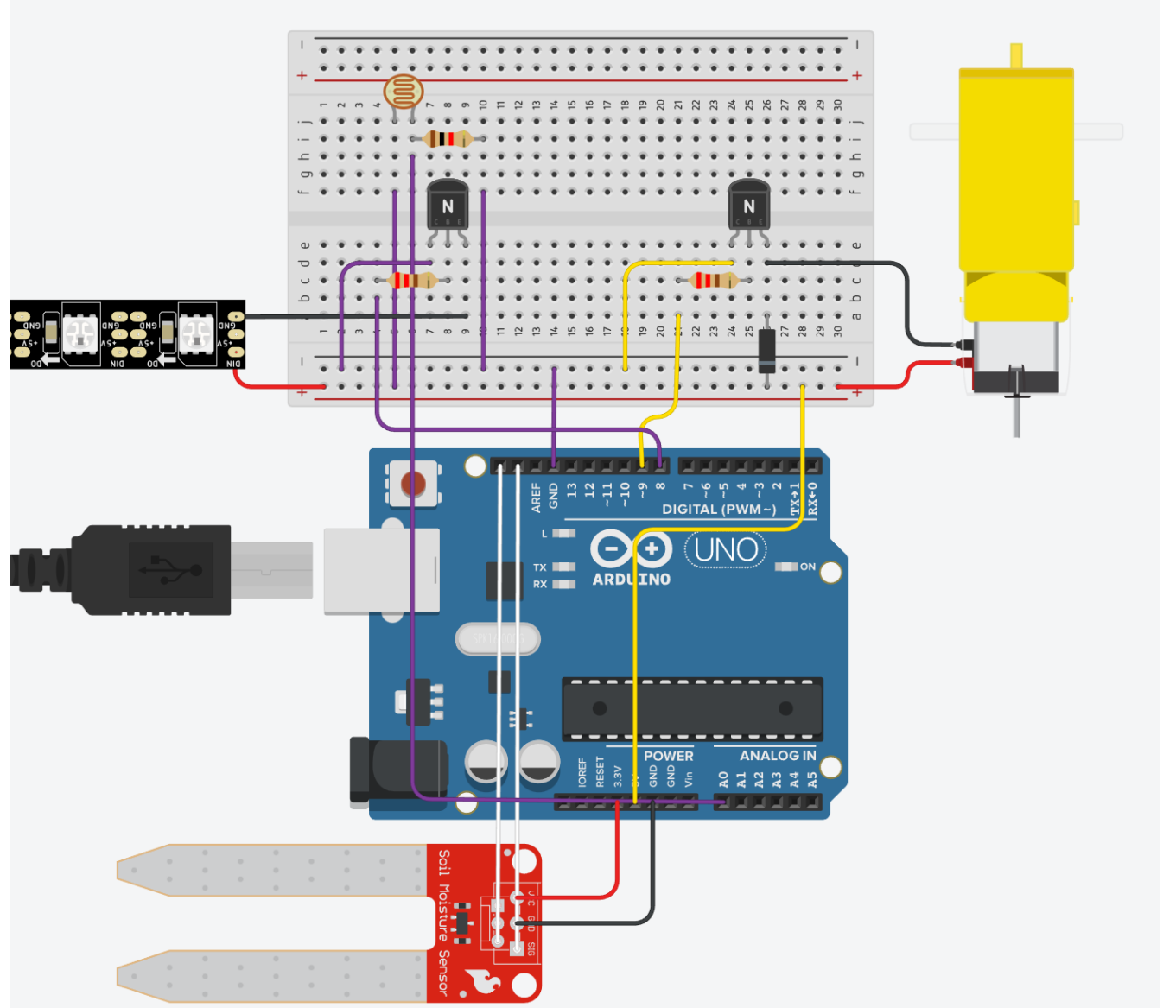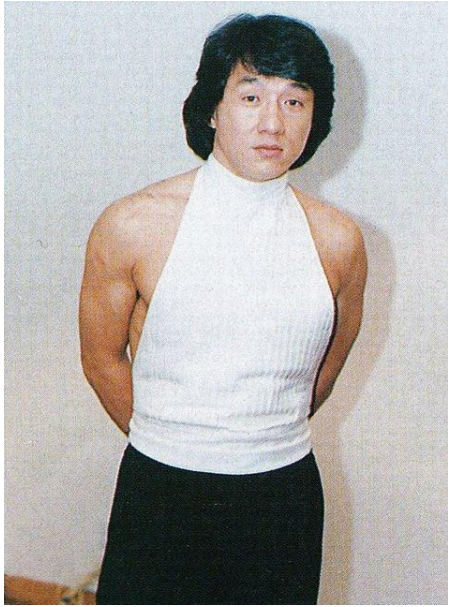
Wiring

Xie xie ni!

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