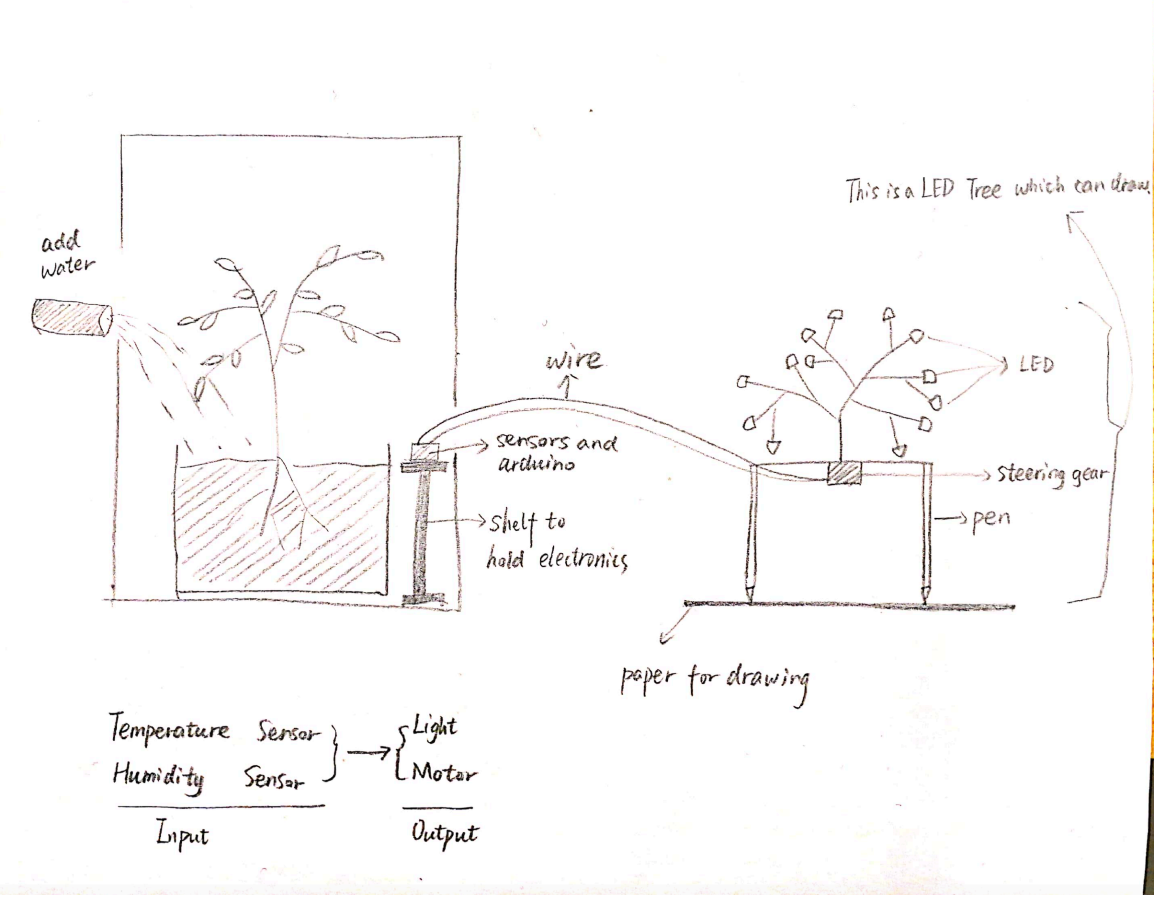
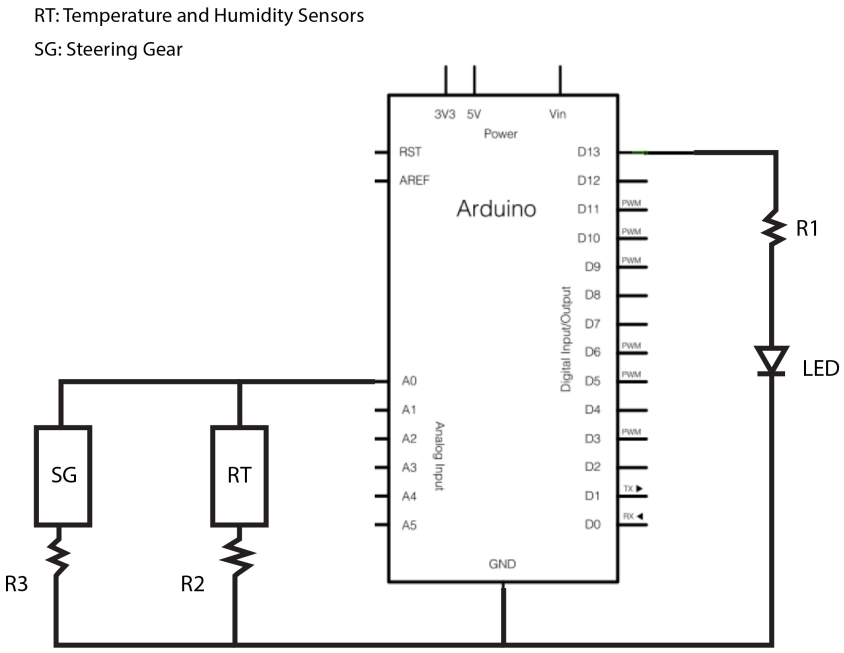
Sketch of Device



Rough Concept

This project can sense the change of temperature and humidity so as to control the light of LED Tree and its movement to draw patterns on the paper. There is a real plant in the box which has two holes. One hole is used to add water for the plant, and the other hole is used to put the Arduino and electronics in the box. When adding hot water to the plant, the humidity and temperature are supposed to increase which can be detected by the Arduino, temperature and humidity sensors. Then, the light of LED Tree is designed to be lighter. Also, the LED Tree can draw faster on the paper because the steering gear installed on the tree has faster speed. Conversely, when adding little volume of cold water to the plant, the humidity and temperature will reduce. Then the light of LED Tree will go darker and this tree will draw at a slower speed.

Schematic



How the code does

The code is used to detect the change of humidity and temperature, then using these data to control the speed of steering gear and the lightness of LEDs on the LED Tree.

List

Wires, led, Arduino, temperature and humidity sensor, resistor, steering gear, pen, paper, box, plant, shelf made of wood, flower pot, soil.