

Document Overview;

Overview of Design:

The swamp-cooler system is made up of sensors for water levels, temperature, and humidity, interfaced with a microcontroller. It controls a fan based on temperature thresholds and allows users to adjust a vent's angle manually. An on/off button enables system control, and a timestamped log of motor on/off events transmits to a host computer via USB.

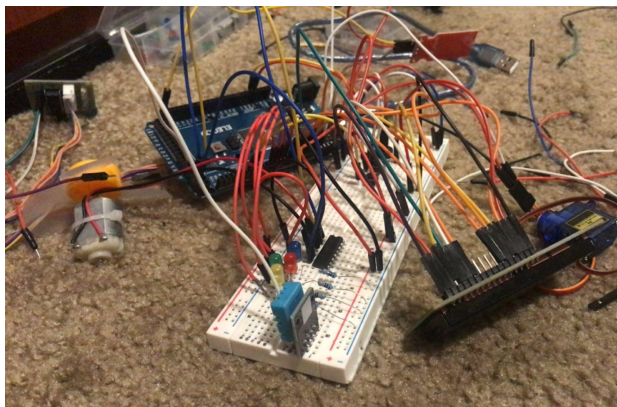
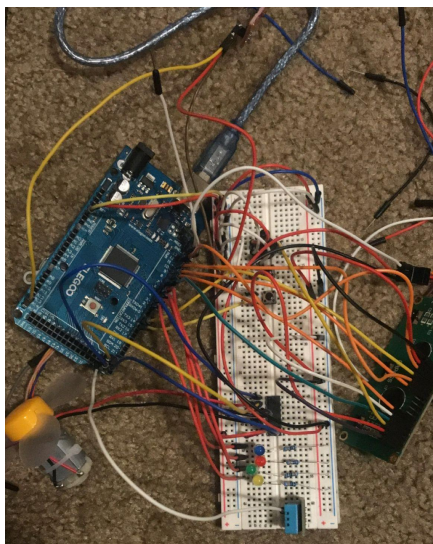
Constraints involve a lack of some required items like a RLC module. One significant constraint is the lack of timely project execution with the given time this project was made to be doable working solo. Collaborating with a group ensures diversified skill sets, shared responsibilities, and faster problem-solving, optimizing the project's efficiency and quality. The absence of a collaborative team might require meticulous planning and efficient time management which was a hard lesson learned for me in this project.

While this project brought me to tears multiple times throughout this week I am proud of some of the things I was able to successfully do.

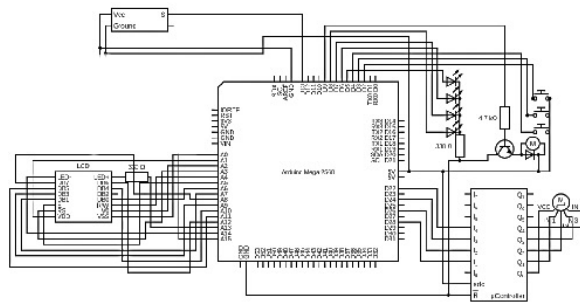
Video Demo;

<https://clipchamp.com/watch/9a1AFHwwrwd>
<https://clipchamp.com/watch/N2HTb6x7KIR>

Pictures;



Schematic:



Github link:

<https://github.com/1102-Guerrerro-Harely/CPE-301-Final-Project/tree/1241d4a61f7db54270d7325cac4d552258d5b67e>