Project Goals: Our initial project goal was an automatic humidifier that wants to fix the issue of manual humidifiers and the problem of the lack of humidity in indoor areas, especially during the winter times when it is very dry and needs that humidity. We will have a humidifier that should automatically control humidity levels based on numerous sensors spread out across a room, taking the average value and sending the data through WiFi signals to our central microcontroller, turning on and off every few minutes based on readings. We will have to use a cost-mist version to evaporate the water using a fan. The sensors will have to be placed in a set location away from the humidifier in order to not count humidifier sensor readings. Each sensor will have a microcontroller to be able to send the data to the main controller, which will issue and read commands. Our goals were fully met. We created a modular design that can be used with any manually controlled humidifier. The project successfully turns on/off the humidifier depending on the sensor readings of 3 remote sensors. The sensor readings are communicated via 2.4GHz Wi-Fi, due to its superior range over Bluetooth. In addition to our original idea, we also added an automatic water valve that refills the water tank automatically. The only goal we did not do was aim the humidifier's direction, as the machine shop could not do a rotating head, which we changed to automatic water refilling.

Expectations: We would say the original expectations in the team contract were mostly met with minor adaptations. For "Uploading/sharing potential parts to buy on the Discord server", we created a separate "parts-to-buy" TEXT CHANNEL in Discord to share the parts we would need to fit our goal. We constantly discussed (in-person and offline) throughout the semester to solve any issues we faced. One of the expectations was "Bi-Weekly meeting with Gregg at the machine shop to go over changes", we can't say there was a meeting with Gregg Bi-Weekly because sometimes next meeting was after more than two weeks, but sometimes the meeting was more often to meet our needs. Lastly, we exerted a great deal of effort into the project that we originally thought of, as we became more passionate as time went on, meeting our expectation of minimum number of hours to put in weekly.

Roles: The roles are largely the same with all our tasks that worked together. We all put effort into the work of the final product, with the roles of Woojin programming and software, Jalen doing the power components of the PCB, and Andrew organizing the PCB and choosing parts. We kept contact with Gregg from the machine shop and aimed to fulfill a set baseline of 12 hours per person a week. We did assign a main leader which was Andrew to designate what parts needed to be done and how to approach the product as a whole. Pieces of the project were tackled individually and then immediately confirmed with the rest of the group, leading to more group work throughout the semester as we combined all the individual parts. We did this to maximize understanding and communication between each portion of the project, otherwise there would have been some repetition or cause of mistakes if accidents happen due to assumptions.

Agenda: Our team set the goals in accordance with the schedule in the design document. Though the goals were ambitious, we were able to meet all the goals ahead of schedule, with the working PCBs all made in the first and second round of PCB orders. Our team made decisions according to everyone's approval. Though there were no disputes, we were able to make compromises for disagreements. Our original plan for issues with the team project was for the person who was not cooperating to carry the burden for extra costs. However, the gentlemen's agreement did not have to be met because everyone cooperated with each other very well.

Team Issues: There were no team related issues during the course. However, in the beginning of the project, there was a gentlemen's agreement that if someone were to do much less work, then they would have to bear the burden for the cost of parts outside of the team's $150.00. This agreement never had to go into effect, because the team worked well with one another. Furthermore, each team member had the freedom to design the component they were working on however they wanted. This allowed minimum disagreements.