

EE/CprE/SE 492 GROUP PROGRESS REPORT

Group number: Group 25

Project title: SMART Garden System

Client:

Advisor: Diane Rover

Team Members: Sarah Schoenke, Jake Thomaе, Bryanna Adamson, Julia Condon, Nick Vaughan, Jasen Helsel, Devon Sindt

- **Project Summary:** *(Short summary about the project. What are the design goals? Have the direction or scope of the project changed? This should be about a paragraph in length.)*

Our Goal is to build a Smart Garden System. In this system we will have the ability to monitor and adjust the heat levels, water system, and growth. There will be a camera stationed at each plant which will display on a website. The website itself is where the consumer will be able to monitor and adjust everything. There will also be a grade for the growth and levels you set for that plant vs what is actually occurring in the system itself. This allows the consumer to see if the grade is worse that means they know to be able to look at the system and see what might need to be adjusted.

- **Accomplishments:** *(Please describe/summarize as to what was done, by whom, when and, collectively as a group since the last report. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to distinguish how each member contributed to the task. Specific details relating to the assistance provided to other members may be included here.)*

- Connected controls page to backend - Nick
- Created controls page UI - Nick
- Cleaned up home page and controls page - Nick
- Created more backend endpoints for timers - Nick
- Began work on connecting camera to frontend - Nick
- Cleaned up backend code structure - Nick
- Website front end bug fixes and cosmetic updates - Julia & Bryanna
- Created control page for fan - Jake
- Worked with Nick to upload pictures through google photos api - Jake
- Started scheduling program for water/lights - Jake
- Connected the graphics page the the backend - Sarah
- Working with Jake and Nick to connect the Camera and google photos api. - Sarah
- Build our frame for the greenhouse - Devon

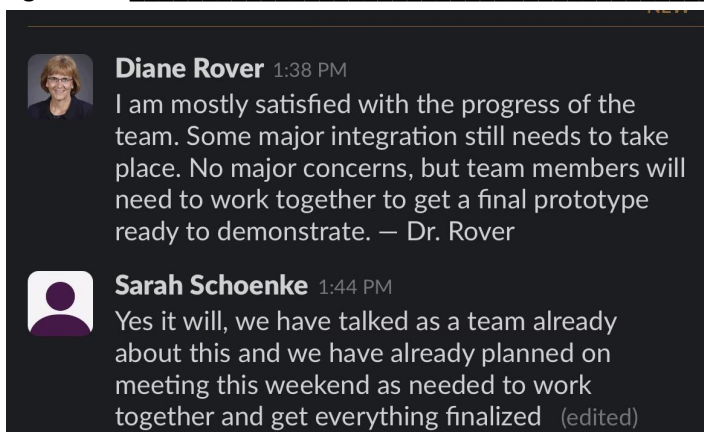
- Built, tested, and fixed interface board, used for controlling 120vac components - Devon
- Planned out the layout of components that will be mounted inside the greenhouse. - Jasen
- Set up the tubing and misters for the watering system - Jasen
- **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*
 - Connecting camera to google photos api
 - Currently still working on methods to upload a picture to google photos
 - The process is more complex than expected so this may take some time to figure out
 - Connecting google photos api to frontend
 - We have to get an OATUH 2.0 token to draw pictures from our google account with pictures in it.
 - To do this, our website must be SSL certified (it's not) to send the request for the token
 - SSL certificates take time and money (may be a stretch at this point)
 - Might have to consider and talk as a group about the future the camera has in our design due to the issues we are having

- **Advisor Input/Signature:**

Please select one of the options below and sign.

- _____ I am pleased with the progress the team is making.
- _____ The teams progress could use some minor improvements which I will discuss with them.
- _____ The team's progress has some major concerns that I will discuss directly with Dr. Bigelow
bigelow@iastate.edu , 515-294-4177

Signature: _____



The picture above was the sign off, on our report. I am unsure how it got cut off from the first one, however, it was not noticed upon submission That being said I added the picture below which also shows the date for the set of text messages which was the friday this report got submitted.

