Progress Report #1

1/12/2023

PAST

Day 1 Greenhouse:

No keys

Day 2 Greenhouse:

Worked on networking issues with Jeremy to be able to communicate with the ZED box through ethernet

* Switch set up
* Assigning IP to the ZED box

Day 3 Greenhouse:

Spray being administered to room, had to wait 24hrs to enter

Day 4 Greenhouse:

Networking issues reappeared. Tried fixing it on my own but I couldn't without removing the ZED box from its ceiling placement.

[winter storm]

Day 5 Greenhouse:

Networking issues fixed with Jeremy. Figured out cause of issue: ZED box was assigned dynamic IP (needed to use Jeremy’s phone’s hotspot to get ZED box known IP). At first we temporarily fixed it by using Jeremy’s phone’s hotspot. Then we worked on getting the ZED box a static IP assigned. We ended up having to remove the ZED box from its ceiling placement and worked on the ZED box directly to assign its static IP.

Wrote a default svo recording python file

Wrote the data collection bash script that runs the svo recording python file every hour

Worked on ‘camera controls.’ Looked at the impact of changing the exposure, gamma correction, compression, etc on the images taken. Due to lack of expertise on what compression type would be most useful for my work and lack familiarity with the ZED camera’s depth sensing, I decided to take three svo recordings every hour with different compression and detph sensing types (no more than 3 due to lack of storage space on the ZED box and no internet access to the ZED box).

Duplicated svo recording python file and updated its contents to account for camera control decisions

Started taking the planned camera calibration photos (brother was helping me hold the objects at different heights)

Lights turned off in the room, had to leave the greenhouse

Day 6 Greenhouse:

Wanted to verify the data collection script was working and wanted to finish taking the calibration photos but I couldn’t get a pair of keys and had to leave the next day for my family vacation so I drove back to Chicago.

[family vacation]

* 01/03/2021: Jeremy had some time to check on the data collection script while I was on vacation. There was a small error. He fixed it and the data collection started appropriately.

ONGOING

Camera Calibration

* Going to Champaign 1/20 to finish photos and start calibration work

Data Collection

* SVO recordings taken every hour and stored onto the ZED box
* UIUC IT is working on getting the ethernet plug connected to the internet so I can access the ZED box on the internet

Data Processing & Machine Learning

* Xiaodan is currently working on giving me access, said by today :)

All my focus was on ZED stuff, sorry if that’s not ideal. I can try working more on Ethan’s. I’m waiting for his reply with the data and other info. Let me know if there is any specific work that is more urgent, I will communicate with Ethan about it as well.

I’ll send the next update after my trip to champaign to finish the camera calibration photos.