CS303 - Honey Bee Dance Language Translator App
Status Report

Date: October 4, 2020

1) Project Members:

- *Paul Cochran*
- *Christopher Flippen*
- *Chelsea Greco*
- *Vinit Patel*

2) Accomplishments for the week -- and which team members participated/contributed

- *On September 28, we met as a group to create the "shopping list" described by Jeremy which describes ideas for the data collection setup*
  - *This shopping list describes several components of the data analysis setup, including possible camera placements, lighting requirements, and the idea of using a Raspberry Pi connected to a hard drive for storing and uploading the footage gathered by the camera*
  - *In order to get ideas for how our setup should work, we looked at how several "bee waggle detection" projects have worked. In our research, we were able to see what the bee waggle dance looks like in video and this helped us see specifically what we will need to be detecting with our program*
- *On October 1, we had thought we were going to meet with Elli to discuss our shopping list and recording of the bees, but we ended up meeting with Professor Dahlberg instead. This meeting involved explaining our ideas from the "shopping list" and showing Professor Dahlberg some of the footage we found in our research. Professor Dahlberg helped us think of several more questions to ask Jeremy or Elli during our next meeting, such as if the app should be connected to a full computer rather than a Raspberry Pi.*
- *On September 30, Jeremy sent several pictures of the hive setup which were helpful for our team understanding the specific appearance of the hive that we are working with. However, we will still need to see the hive and room in person in order to fully plan how we will want the data collection setup to be done.*

3) List of Milestones to be completed and anticipated date (indicate which ones are in danger of not being met)

- *On October 5, we will meet as a team to write out a preliminary algorithm for detecting the bees waggling with factors such as: figuring out when a bee starts and ends the dance, figuring out what direction the dance is pointing to, and figuring out how far away the dance is directing. Some parts of this algorithm will require working more with Elli to understand the mechanics of the dance, but we should still able to have some initial ideas*
- *On October 8, we will hopefully meet with Jeremy and/or Elli to present our shopping list and algorithm*

- *We will have to visit SMV in person at some point to gather more details about the room containing the hive. Hopefully, we will get more details about this in the coming week*

4) List of issues, problems, or concern(s)

- *There don't seem to be any issues with the project currently*