Toxin Screening Labeling System Installation and Usage Guide:

Installing Anaconda:

To install, go to **https://www.continuum.io/downloads**. Follow the download and installation guide for Windows.

You may find this anaconda cheat sheet helpful: **https://conda.io/docs/using/cheatsheet.html**

Anaconda First Time Use:

1. Navigate to Documents directory

2. Create a new anaconda environment:
   conda create -n labeltool python=2.7 anaconda

3. Activate the environment
   activate labeltool

4. Install Django
   conda install -c anaconda django=1.10.5

5. Install OpenCV 3
   conda install --channel https://conda.anaconda.org/menpo opencv3

Anaconda General Use:

1. Navigate to Documents folder

2. Activate the environment
   activate labeltool

2. When finished, deactivate the environment

deactivate

Labeling System First Time Use:

1, Navigate to the Documents folder

2. Start up anaconda (refer to instructions above)

3. Download source code:
   git clone **https://github.com/aarong4743/**
        toxinscreeninglabelingsystem.git

Labeling System General Use:

1, Navigate to Documents folder

2. Start up anaconda (refer to instructions above)

3. Navigate to myproject folder
   cd myproject

4. Fire up local server
   python manage.py runserver

5. Go to local host specified in command prompt plus myapp and welcome
   http://127.0.0.1:8000/myapp/welcome

6. Select "Make a Training Set" or "Make a Test Set"

7. Name your set. Be sure that you are not naming it something that already exists

8. If you selected training, select all of the files in your training set to upload

   1. Click "Upload"

   2. Click "Start Labeling"

3. Iterate through each image, and enter the number of eyes that you see for the worm in the image. Please enter 0, 1, 2, or -1 if you cannot tell or the number of eyes is different.

4. When you are done, it will take you to a page that says "Done Labeling". Click "Home" to go back to the original welcome page.

9. If you selected test, select all of the files in your first well to upload

1. Click "Upload"

2. Click "Start Labeling"

3. Look at the list of all of the images in the well, and enter a general consensus on the number of eyes you see for the worm in the well. Please enter 0, 1, 2, or -1 if you cannot tell or the number of eyes is different.

4. Select all of the files in the next well to upload

5. Repeat sub-steps 1-3 of step 9

6. Once you have labeled your last well, click "Finished"

7. Click "Home" to go back to the original welcome page.

10. Press "Ctrl + C" to terminate the local server

11. Deactivate the conda environment (see instructions above)

12. Open up File Explorer

13. Navigate to the project foler.

14. Go into "myproject"

15. Go into "media"

16. Go into "training"

17. Move all of your labeled training sets to a better location outside of the project folder.

18. Go back into media and go into "test"

19. Move all of your labeled test sets to a better location outside of the project folder.

20. You have now completed all of the instructions for using the labeling system. Congratulations!