

## WEEKLY REPORT and MEETING AGENDA

Report #:9      Project Name: Traffic Light Detection and Tracking  
Date: 4/11/23      Prepared by: Robert Madriaga

### Agenda for the weekly meeting

1. Clarify metrics for comparing metrics of our project vs the vanilla model.
2. Ask for details on what to prepare for project demonstration
3. Ask for advise and feed back on current model and how to improve

### Accomplishments during this period

1. Merged various development branches into main branch
2. Started work on preparing bootable media testing code on other machines

### Plans for next period

1. Complete implementation of ROS messages into code
2. Test model performance on lab computer from the SSD
3. Prepare material for project demonstration
4. Tune model to improve performance

### Project management status

1. Schedule and milestones
  - Created and integrated ROS interface package for output mesages.
2. Teamwork
  - Smaller groups collaborated on creating test bootable media and debugging and testing of current code
3. Purchases
  - SSD for testing on lab computer

### Minutes from previous meeting

Present Members: Robert, Aaryan, Morgan, Clayton, Max

Location: EABA

Topic: Tuesday weekly meeting

Time: 8:30 AM

Q&A discussion with instructors:

Q: For the final presentation demonstration, should it be live or recorded?

A: Ideally the presentation demonstration should be done live, recorded presentations are mostly for hardware teams which are more likely for random problems.

Q: Details and clarification on bounding box msgs?

A: We should not worry about the z-coordinate found in some of the msgs, since that will be filled in by lidar. For the header field, that inherits the ros bag's header, and we can leave the image headers blank. We should mostly copy last years msgs.

Q: How to we test on the lab computer?

A: The lab computer is located on a desk in the back of the room, and we will need a bootable hard drive to connect and run our code on it.

Q: Clarification on the requirement to compare to a vanilla model?

A: We should compare our model to the most commonly used model. Here that would be the default pre-trained Yolov8 network.

Q: How to address our problems with flashing light detection due to limited performance?

A: Should use the ROS bag time stamps to calculate the time intervals. We should not rely on our computers own clock since that varies from machine to machine. Testing on a decently powerful machine is important for evaluation of our model. We can also slow down the bag file to a lower frame rate to make image processing easier.

Q: Can we consolidate the msg files?

A: We should just copy last years files, and bounding box coordinates should be given in pixels.