Quinn Cunningham, Nick Smith

Senior Project

Professor Deligiannidis

26 June 2019

Backseat Driving Progress Report Week 4

For this week following mid term presentations we wanted to focus on the mounting of our cameras, and also trying to configure them in a way to get the best data. The three cameras are now completely synced up and fully installed in the prototype 3d printed mount we completed this week.The rear cameras can be spliced together for one very wide angle view with options to change the overlap amount. This is depending on where rear window of the car are placed(We will be testing two cars to show this). Lots of code cleanup has taken place just to get rid of a few bugs and also to make things run smoother and more efficient. As said previously the 3d printed mount prototype was printed and installed in the car, we are currently at work to try and find a way to mount it to the vehicle without duct tape, we are thinking about using to makeshift some suction cup to hold the mount in place. Code for edge detection is mostly done, so that car windows can be identified and focused on. This will be very important for the cameras to detect the cars outside of the vehicle and not the passengers. Image processing jobs are now handled by a different thread than main (aside from combining the 2 rear images) to reduce delay. We plan to just keep working on these things in the next week, we want to fully mount the 3d printed model and also get a new print in as well, we have some ideas that would improve the model. We also used a cheap material for the first print and the good material for 3d prints is pricey so we want to figure out the right model before we use the good material. Testing in the car will also take place in the next week.