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Backseat Driving Progress Report Week 2

For this week Backseat Driving is focused on finishing figuring out our camera situation and starting some processing. We can finally confirm that we have found the right camera for what we need to do. We have a solution to the sync of the cameras using custom camera firmware and a frame buffer. We also started coming up with ideas for mounting the device in a vehicle that would both be practical for a program and practical for a potential user in the future. We are thinking of using a 3d printed mount to hold the cameras in place. It is very important that it can be easy to install and also for the mount to support the weight of the cameras and that the cameras are able to get a good picture while mounted, we have talked with many mechanical engineers about how to make this possible and we have some solid ideas (We have no experience in solidworks so this helps a lot). For next week we want to focus on the best way to process the feed from the cameras as they will be streaming over a hootoo portable access point. We are now using 3 Wyze Cam v2’s as they have wider angle lenses and are able to stream rtsp (real time streaming protocol) video, and will be experimenting to see if it is better to stream from each camera once then process the feed differently per need, or stream from each camera for each need that needs processing. Such as 1 stream/connection doing car detection and pedestrian detection or 1 stream for each from the same camera. This will let us see how much of the work can be offloaded to the cameras vs the main computer.