Memo

To:	Kevin Pintong
From:	Zak Rowland
Date:	May 15, 2020
Re:	Response to peer feedback

Hayden Hutsell:

"I like the idea for the project. You'll have to learn new technologies which is a great opportunity (OBD-2, touchscreen, video, Bluetooth). My concern would be about housing, and how your power system would look with all of these components running. Wall power or battery? One is more convenient for you, the other for the user."

Hayden's concern about the housing is a good point, I should have mentioned my initial idea which is to have one 3D printed. I plan to model a simple housing myself to house the screen, battery, FGPA or equivalent, and Bluetooth receiver, then send the files somewhere to have it printed. As for power, the battery will be plug in rechargeable (likely via Micro-USB or USB-C,) that way the user can move around the vehicle inside and out without worrying about cords and wires. I would like the system to last at least two hours on battery at the highest load before needing a recharge.

Nikolai Danko:

"This seems like a good project. The biggest thing is gonna be differentiating your device from existing solutions. Price is a good way to do that but you also need to have a backup plan in case it ends up being impossible to make it cheap."

I have been thinking of ways to differentiate my project a bit more. I think a wireless camera mode would be interesting; a camera in its own small housing (like a GoPro) could also house an LED and stream the camera feed live to the main housing with the screen. The user could use the UI to switch to camera view and there could be a big button to turn the LED on or off (so the camera can see in dark spaces.) The idea here is that it could be used for many things: attached to the end of a magnet to check for problems or leaks, attached to the rear of the vehicle to be used as a backup camera, etc.

Stephen Lankford:

"I like this project and I do think you can pull it off. I think you should just make this a device that sends data to a phone application instead of using a separate

touchscreen. I know you mentioned that there is an existing solution that already uses this method, so I am not sure how this project could be made unique. You also talked about an existing solution that has a touchscreen as well, so that is not necessarily unique either. You could maybe add GPS to your device for extended features? Check out the articles I posted below. Good luck with everything! ..."

Stephen gave some great feedback and even provided useful links for OBD-2 information. There are a few reasons I don't want the system to run from a phone app: the user is likely using their phone for something else when working on a vehicle (flashlight, music, manuals, internet forums, etc.,) installing apps to use a new device is off-putting for some, the unit can be mounted on the dash somewhere or handed to a friend with no worries, and because I want to learn how to drive a small touchscreen with hardware. I am still working on ways to make my solution more unique.