# Consept Development

After interviewing 5 regular drivers, it became clear that most feel they have little to complain about, when it comes to their cars and driving experience. The largest nuisance seemed to be frosted ice on the windshields. Other than that, the issues brought up were largely related to optimizing safety. The interviewees also mentioned certain entertainment related products they would like to see.

Among the specific car-related issues that could be fixed were these five:

**Frosted ice on windows:**
This is an obvious annoyance during the winter, when you have to hurry to get to work/school etc.

**Falling asleep while driving:**
This could be a major safety concern, and could potentially be solved by tracking eye and head movement. A downside is that a solution to this problem could incentivize drivers to irresponsibly discard drowsiness as a safety hazard.

**Right of way / Give way:**
This shouldn't be much of an issue with a responsible driver (then again most things shouldn't), but there is a potential for disallowing the driver to push the petal to the metal, as headlights are detected from the right.

**Lack of coolness on the dashboard:**
A request was made for a way to replace the boring old dashboard, with a completely digitalized HUD.

**Voice controlled entertainment:**
Someone liked the idea of controlling their entertainment (mainly music) by voice. In particular, a wireless device that could be used with cars with Bluetooth was requested.

## Solutions

The two issues I found most intriguing were the ones related to windshield frost and give way.

**Give way:**

As previously mentioned the give way problem could be solved by utilizing various kinds of sensor technology. A car approaching from the right at an intersection, would cause the system to force break and/or disallow acceleration, making sure you don't make a scene, or at worse, cause an accident.

Humans don't always follow the strict guidelines of traffic, and sometimes you might encounter a friendly driver, letting you in the roundabout during rush hour, even though it's perfectly legal for him to enter before you. In this case and similar ones, it's obviously unfortunate if your car would refuse to accelerate. It is therefore necessary to have an incredibly intelligent control system, a simple manual override, or give the human full control over the vehicle, and instead alarm the driver, with audio and/or visual cues.

**Defrosting the windshields:**

Assuming you don't want to install heat cables in all your windows (as is common in the rear), this problem would most easily be solved by using the cars AC – system. By either scheduling heating from say Monday to Friday at 8:00, you could avoid the pesky frost, and enjoy the benefit of not shivering the whole way to work. Such a solution should also allow heating requests through mobile apps.

**Time spent**

The time spent on the assignment could be about 5 hours, of which roughly half was spent writing this document. The time spent could've been considerably lowered, had I formalized the "interviews" a bit.