**Description:**

Our group is trying to solve the parking problem for urban drivers, we’re developing an onboard system which finds the optimal parking slot for driver, by optimal we mean an available parking slot that is the nearest and easiest to reach. My solution is to develop a device which finds the optimal parking slot in real time and display the route to reach the parking slot holographically and make the payment online. My solution addresses the database connections, online payment system, holographic emitter technology and the Assisted-GPS system. The A-GPS is a faster navigation system than the casual GPS and it’s integrated in the onboard system along with the online payment function and holographic emitter, the built-in wireless modem should talk to remote database to update the information in real time, then all these information will be gathered and integrated then displayed by the holographic emitter. And the driver can easily make the payment for parking through the built-in online payment function.

**One future scenario of use:**

Owen is a driver who lives in populated urban area and he always drives to various places and he needs to park a lot, now he mounted the new optimal parking slot finder, and he needs to park his car so he simply talked to the device:”Hey find me a parking slot”, the device quickly responds and displays a parking slot nearby and the AI asked:”Parking slot found, do you want to pay now?”, “Sure!” Owen answered, then the parking slot is reserved for Owen and he just simply follows the holographic navigation map to the parking location.

**Critical assessment:**

My solution fulfilled the **Low interaction level/Ease-of-use** and **Visible navigation, Only present a few choices a time, Real time information updating, Easy-payment** design principles, and user needs, with partial requirements satisfied, however, the system doesn’t learn the driver’s preferred parking slot, and the system doesn’t handle the unexpected road conditions, it doesn’t allow user to configure a customized route because of the simplicity design of the system, it doesn’t interact with a cellphone neither. The system does support voice control and update the information in real-time, the system is also easy for users to understand due to the simple straightforward design. The voice control, holographic emitter and real-time information updating as well as the online payment can be tested, however, they are limited to signal covered areas because they requires internet connection, for example, if the internet connection is not stable then the real-time information updating function would be severely affected.