Human Machine Interface

Accessible Apps to hail a car (Section 508 compliant)
Both print/visual (adjustable size/contrast by user) and audio I/O
Voice-controlled systems (e.g., change route, unlock doors, lower/raise windows, etc.)
Where’s my ride, including finding it when it arrives (how will the car know you are blind?
Could it detect a dog, or a cane?)
Micro-navigation needs for Blind riders -- how will you know the car has arrived?
Minimally complex directions and control identifiers
Compatible with portable devices (phones, tablets, ‘smart-glasses’) with customized
assistive technology, such as paperless Braille display for deaf/blind users
Accessible operating surfaces (within reach; tactile cues, etc.)
User enabled remote destination selection and trip monitoring with video and GPS for
users with intellectual disabilities
Alternate (accessible) drop off points for access (eg, near curb ramps)
Provides information (visual and audio) about environment surrounding the vehicle
  - Location, route, certain landmarks (e.g., Bay Bridge Toll Plaza), etc.
  - Weather, road conditions
  - Accidents, incidents (how will car communicate in an emergency?)
  - Deviations from route or why the ride may be stopping
Orients user to drop off point including access features, directions to destination with
orientation landmarks, construction, etc.

Hardware

Compatible with existing hand controls (Levels 2 and 3)
Space to stow wheelchair if transferring
Lower floors to accommodate wheelchairs (don't put tech under the floor)
Lift/ramp and securement system, or support for aftermarket modification
Accessible securement for non-disabled people with limited upper body mobility, e.g.,
seat belts
Accessible door handles, storage spaces (opening and closing the trunk or hood)

Policy & Legislation

Anti-discriminatory licensing, insurance & liability requirements (No licensing for Level 4
and Level 5 passengers)
Anti-discriminatory data & privacy requirements (only sharing disability/health status, or
locations visited with permission)
Ethical considerations (whose life is prioritized in a crash?)
Funding for fully accessible vehicle R&D
Fully accessible infrastructure development (sidewalks, curb ramps, complete streets)

Note: Anything that a car maker includes as a feature or enhancement for people without disabilities
should be designed to be accessed by people who are blind, Deaf, have mobility disabilities, cognitive
disabilities, etc. Please contact Carol Tyson, ctyson@dredf.org, with any questions or comments.