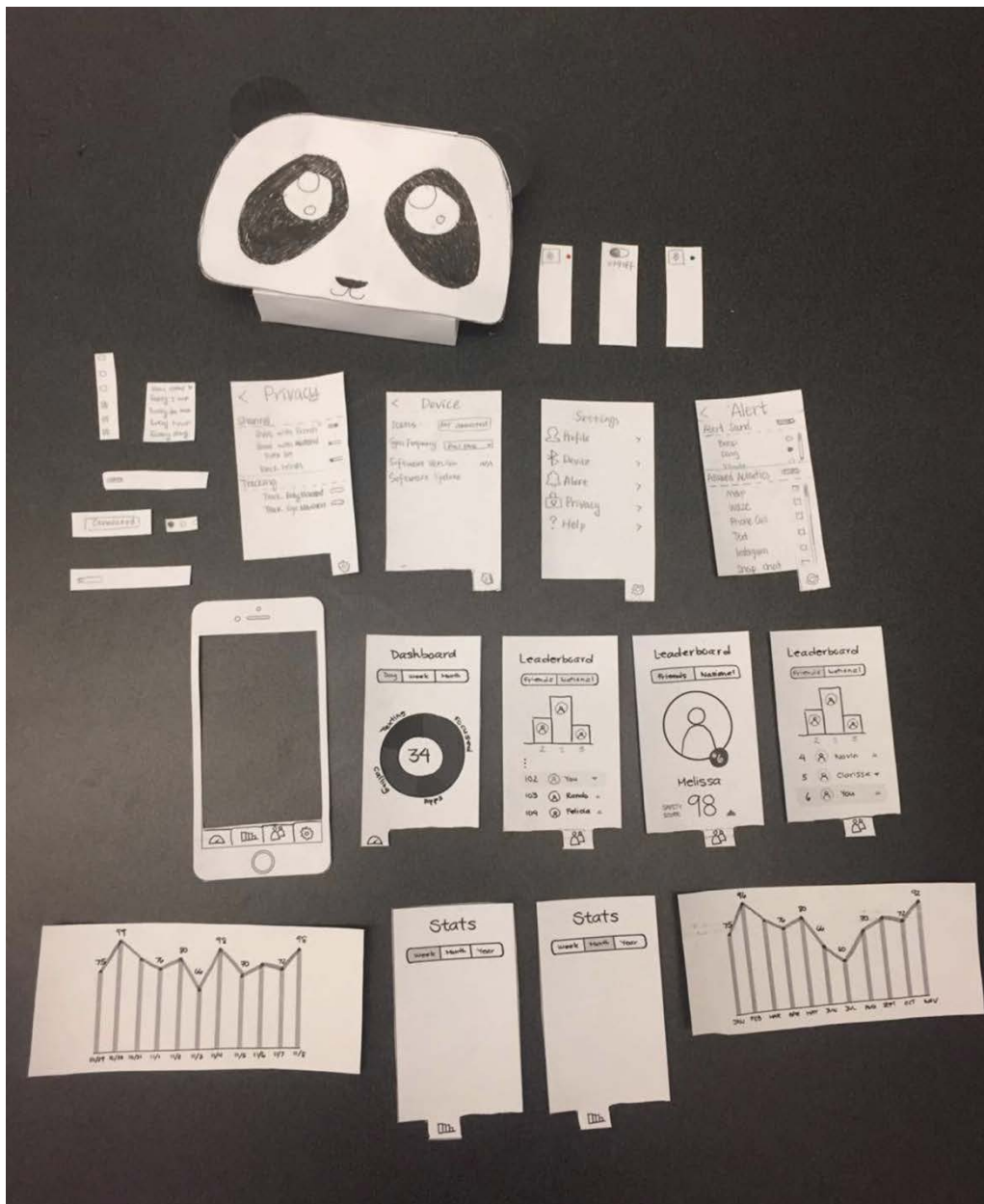


Assignment 3a: Paper Prototype
CSE 440 Section AB | Distracted Driving

Paper Prototype Overview

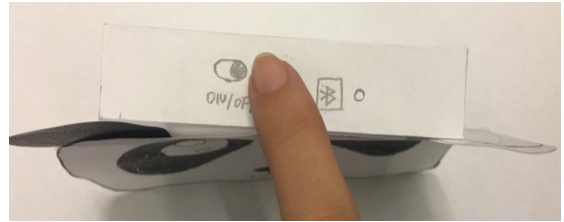
Our paper prototype features two components. The first component is hardware that tracks eye and body movements. The second component is a mobile application that visualizes data and allows users to compare their driving statistics with others.



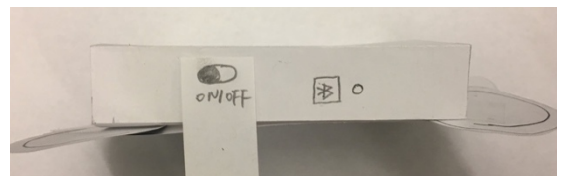
Task 1: Visualizing and Processing Driving Behavior



(Figure 1.1) Hardware overview. Kinect-like trackers are located in the eyes of a user-friendly panda.



(Figure 1.2) User can switch tracker on/off.



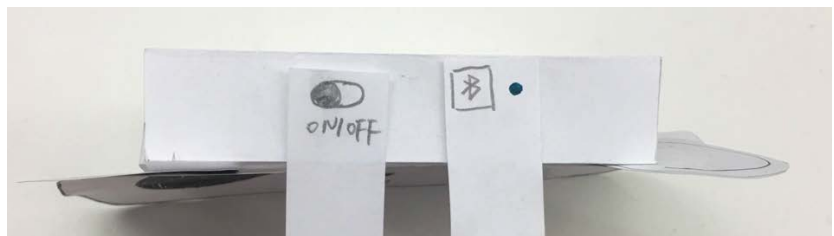
(Figure 1.3) Tracker is now switched off.



(Figure 1.4)
Side view with
volume controls.



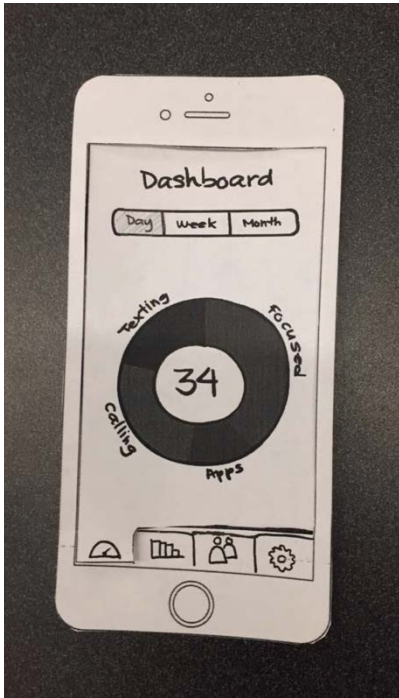
(Figure 1.5) Bluetooth pairing with mobile device is off.



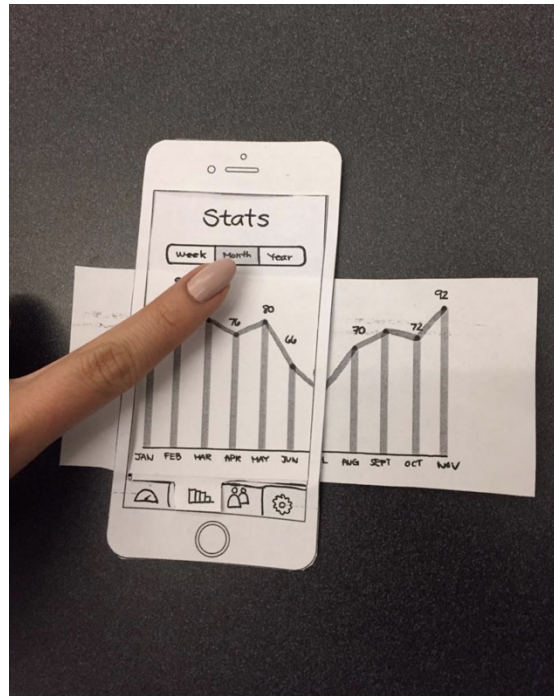
(Figure 1.6) Bluetooth pairing with mobile device is on.

Task 1 (cont.): Visualizing and Processing Driving Behavior

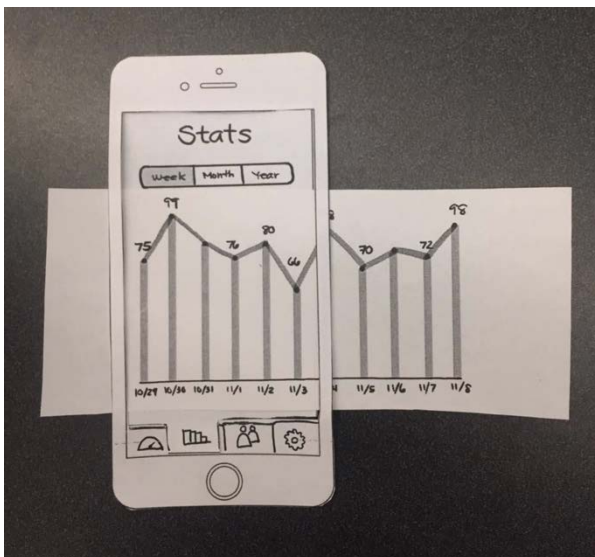
The following mobile app screens demonstrate statistics on overall driving safety.



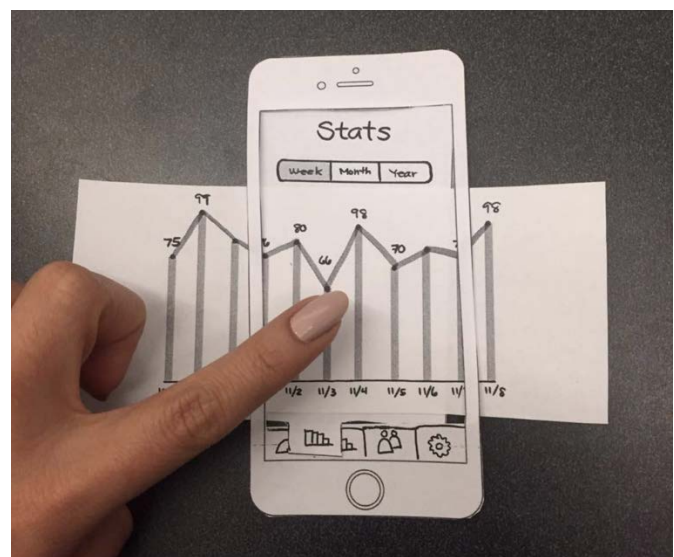
(Figure 1.7) Homepage of recent driving activity, categorized. Center number represents driver's Safety Score (i.e. percentage of time spent focused on road).



(Figure 1.8) Month view of safety scores.



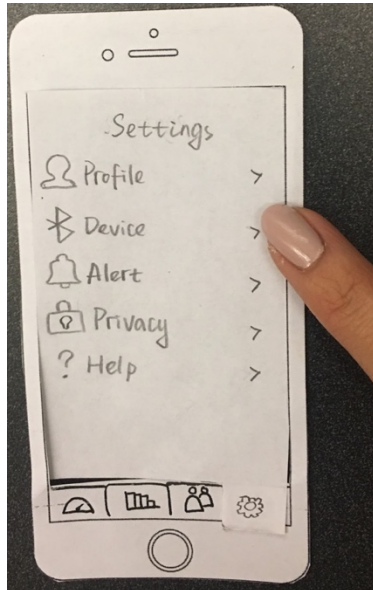
(Figure 1.9) Week view of safety scores.



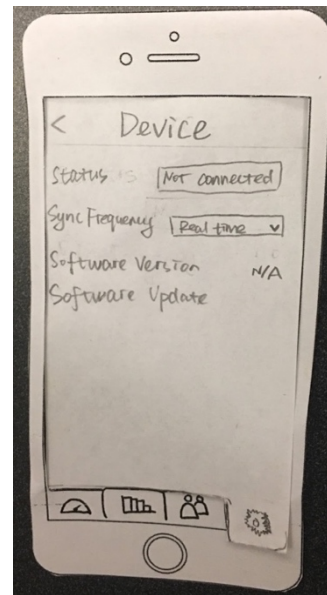
(Figure 1.10) Demonstrating side scroll for viewing average safety scores.

Task 1 (cont.): Visualizing and Processing Driving Behavior

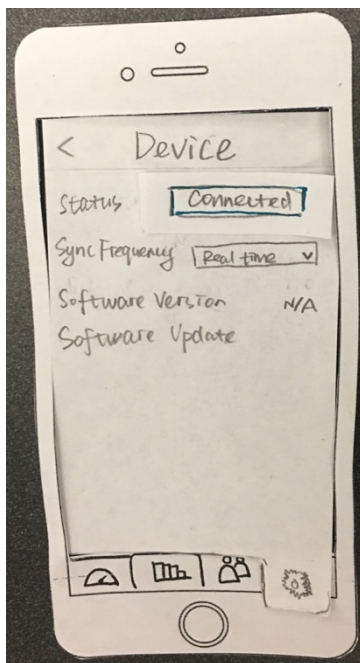
The following mobile app screens demonstrate settings for pairing hardware.



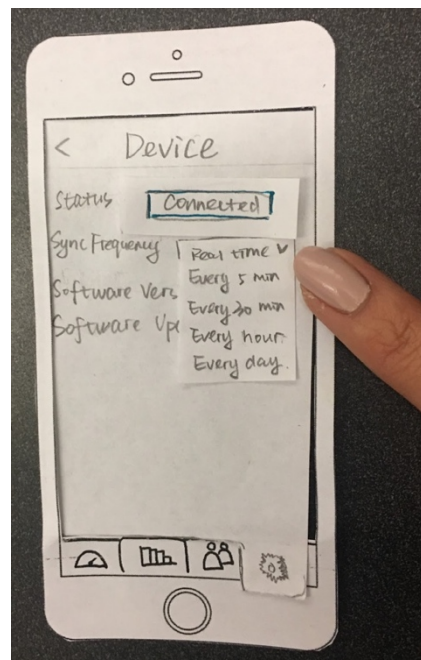
(Figure 1.11) Selecting "Device" takes user to hardware device settings.



(Figure 1.12) Default device settings for hardware.



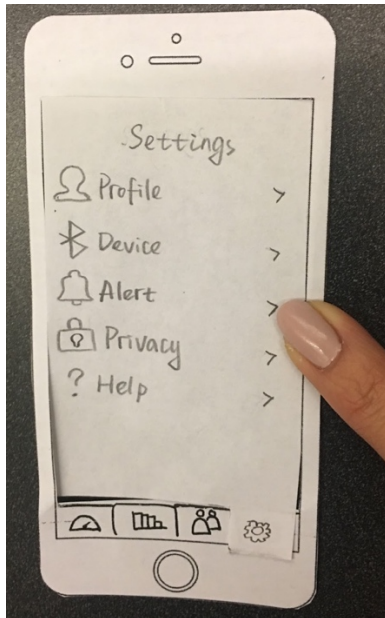
(Figure 1.13) Upon pairing with tracking hardware, the status becomes "Connected"



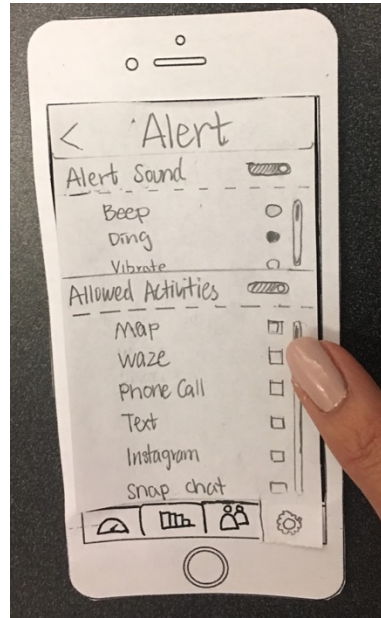
(Figure 1.14) Users can select sync frequency, which determines how quickly data is sent to the mobile app.

Task 1 (cont.): Visualizing and Processing Driving Behavior

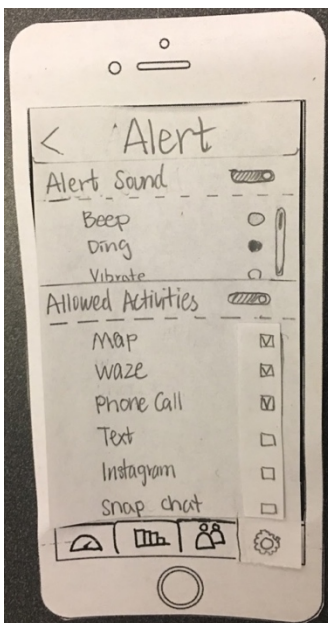
The following mobile app screens demonstrate settings to adjust alerts.



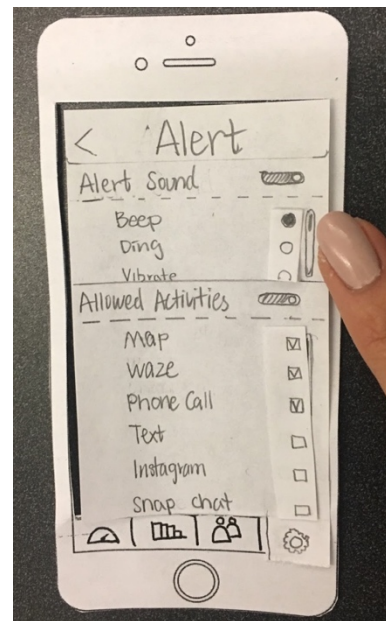
(Figure 1.15) Selecting "Alert" takes user to Alert settings



(Figure 1.16) User can select allowed activities while driving. See Figure 1.17 for result of selection.



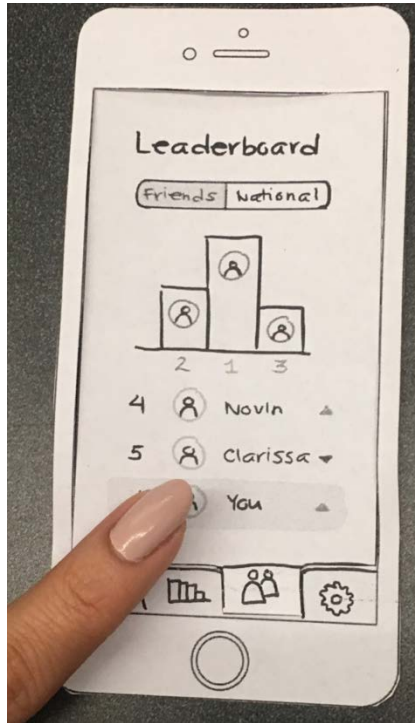
(Figure 1.17) Result of selecting allowed activities after Figure 1.15.



(Figure 1.18) User can select alert sound for distracted driving.

Task 2: Sharing and Comparing Driving Habits

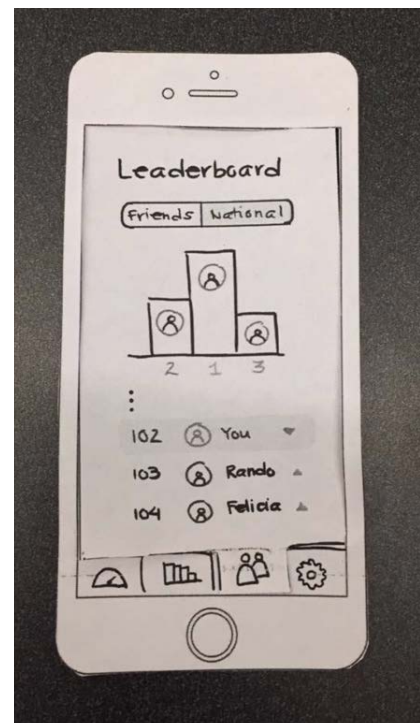
The following mobile app screens display the Driving Safety Score leaderboard.



(Figure 2.1) Friend view of leaderboard. User can select a user to be directed to their profile.



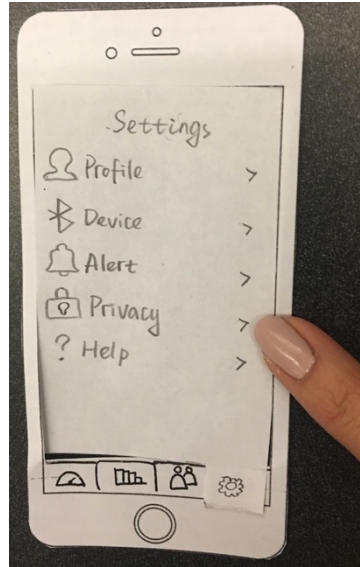
(Figure 2.2) Result of clicking on a user's profile.



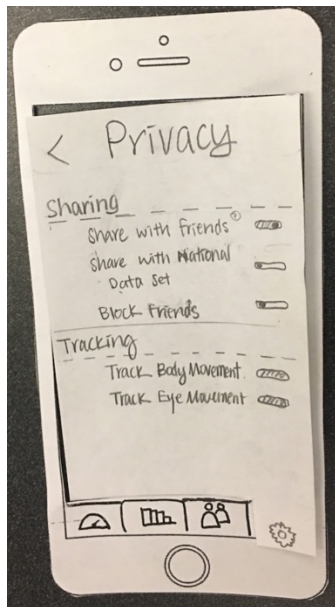
(Figure 2.3) National view of leaderboard.

Task 2: Sharing and Comparing Driving Habits

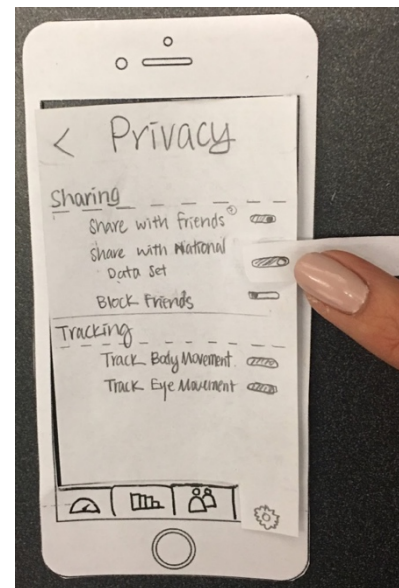
The following mobile app screens display privacy settings for sharing and tracking.



(Figure 2.4) Selecting "Privacy" takes user to privacy settings.



(Figure 2.5) Default privacy settings for sharing and tracking.



(Figure 2.6) Settings can be toggled on or off.