

## The Issue

Car crashes are the number one cause of death among teenagers, and 1 in every 3 are alcohol-related.

Each year 2,000 teenagers are killed due to underage drinking and driving. In addition, The Surgeon General's Call to Action shows these shocking figures:

75% of seniors in high school have consumed alcohol



60% of juniors and seniors say they have ridden with a drunk teen



48% of teens who drank in the past year were said to be 'nondrinkers' by their parents



#### **IPRO** Information

#### **Team Members:**

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#### **Faculty:**

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#### **Special Thanks:**

- -David Malham, M.A.D.D.
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- -Randy Sonnenfeld, State Farm Insurance
- -Danny Gandera, IIT PhD Candidate
- -Curt Kindschuh, Drunk Busters



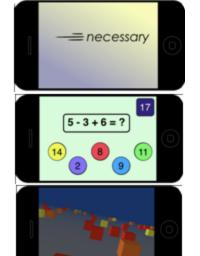


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# IPRO-351



Combating **Underage** Drinking and Driving



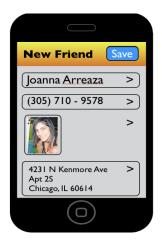


Be at ease when your kids have the keys!



# Know that your child is safe.

#### **Product Features:**



**Clue-Me-In:** A parental informant that will let the parent know: where the child is going, who they will be with and other important information



Memory Game: Participants are shown a group of objects for a certain number of seconds. After being shown these objects, participants are to drag and drop the objects back in the original order. Measures: cognition, memory, reaction time, vision.



Word-Color Game: The names of various colors will repeatedly pop up on the screen in various font colors. Participants are to tap the screen when the name of the color and its font matches. Measures: multitasking, vision, reaction time, cognition.



Obstacle Course Game: Participants will use the phone as a steering wheel. At the top of the screen a math equation will be displayed missing one number to complete the equation. There will be numbers on the side of the road. Participants are to steer the car to hit the correct number. Measures: reaction time, cognition, multitasking, balance, vision.

### Project Background

IPRO 351, an Interprofessional Studies Project at the Illinois Institute of Technology, was established in the Fall of 2009 to culminate the expertise of students from various technical and business disciplines to create a method to reduce the prevalence of underage drinking and driving in the United States. During its first two semesters of operation, the participating students performed extensive research on the available technology designed to detect and measure intoxication and how it could be used to reduce drinking and driving while creating a profit for those invested in the project.

After considering the related technologies and available market research, the Fall 2010 semester decided to create an iPhone application that will use several short, simple tests to detect impairment and combat underage drinking and driving. Teens aged 16 and older will use this application before they can drive the family car. If they are to fail the tests, a message is sent to the parents. From there it is up to the parents to determine the best course of action that will keep their child, as well as other drivers on the road, safe. The application serves as a warning system to parents of young drivers. In research related to the issue of underage drinking and driving, including The Surgeon General's Call to Action, the parentchild relationship is stated to be the number one source of prevention.