



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

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<b>Project Title</b> <b>Cell Phone Distractions</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Cell phones are widely used everywhere. Many people are concerned about people getting into accidents while driving using cell phones. Some web research shows that accidents can increase with cell phones. The goal of my experiment is to see if distractions can occur with cell phone audio interactions and the extent to which people can make mistakes while on cell phones. <b>Methods/Materials</b> I conducted two types of hand-eye coordination tests. One is a simple test, to represent simple driving situations. Another a complex test, to reflect more complex driving conditions where quick thinking, and hand-eye coordination is involved. In the simple test, test subject picked the same colored token as shown by the index card I showed and placed it in the corresponding colored cup. In the complex test, he or she picked the missing colored token (since i showed 3 colors in the index card, he had to find the missing fourth)and placed it in the corresponding colored cup.  I conducted both the tests with and without audio interaction to see the effect of audio interaction on the mistakes made in correctly placing the colored tokens. Each test was timed, with audio interaction in the form of pre-recorded questions to which test subjects had to respond to as they took the visual/hand coordination test. <b>Results</b> 29 people were tested. In all cases people made more mistakes in hand-eye coordination when audio interaction was introduced. Female group made less mistakes in comparison with male group. Young adults made less mistakes compared to adults. Mistakes generally increased by 15% to 30% when audio interaction ocured while doing the hand-eye coordination test. <b>Conclusions/Discussion</b> I conclude that audio input and interactions clearly distract people and can cause mistakes to occur. My hypothesis is thus correct.  Females appear to make less mistakes than males because they may be better at multi-tasking. Young adults appear to make less mistakes because they are used to blasting music while they drive and have faster reaction times because they play lots of video games.	
<b>Summary Statement</b> My project is about how cell phone conversations causes distractions and increases the mistakes people make, especially when driving.	
<b>Help Received</b> My Dad tought me to use Microsoft Excel. My Mom helped me with the applications and buying all materials.	