



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> <b>Matthew L. Honig</b>	<b>Project Number</b> <b>J1311</b>
<b>Project Title</b> <b>The Law Is Hands Free, Is Your Safety a Guarantee?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of my experiment was to determine if talking on a hands free cell phone effected drivers motor skills. I hypothesized it would negatively effect them because it is a distraction. The problem I#m addressing is the increase of drivers using a cell phone while in the car. I believe the solution lies in informing drivers of dangers associated with cell phone use and passing legislature against it.</p> <p><b>Methods/Materials</b> To test my project idea I bought a realistic steering wheel and driving pedals that I could connect to my Play Station Two, and that were compatible with the driving simulation game, Gran Turismo Three. The first thing I had my test subjects do was sign the consent form, then I would allow them a thirty second warm up to become familiar with the game. The first part of the test, the subject drove around a course for a minute with no distractions, then I would record how well they did in these categories, speed(50-65 mph), if they were able to stay on the road and avoid collisions. I would then have them play at a similair track, but while equipped with a hands free cell phone and talking to one of my assistants who had a scripted conversation. I then recorded the second set of data and compared the results.</p> <p><b>Results</b> When I concluded my research I found that the middle age group 17-29 had done the best. They averaged 16 times off the road, 11 collisions and 14 times outside the speed limit while on the phone. Next was the younger age group, 12-16 year olds. They averaged 20 times off the road, 13 accidents and 15 times outside the speed limit. Last was the eldest age group consisting of people of thirty years of age and above. They averaged 27 times off the road, 18 collisions and 27 times outside the speed limit. I believe my test was an accurate depiction of how driving while talking on a hands free cell phone impairs drivers from performing as well as they can while on the road.</p> <p><b>Conclusions/Discussion</b> These test results prove my hypothesis. The data I gathered supports my hypothesis because I was unable to find any studies done on this subject. But with the aid of these results I have reliable proof.I believe that my data is very reliable because I followed a strict scripted procedure and I had a large test group of 102 subjects. In all of my data I saw similar results in every test save for two. Both of those tests were major outliers in my data.</p>	
<b>Summary Statement</b> My test was focused on finding out if talking on a hands free cell phone impares drivers abilities and if so how much.	
<b>Help Received</b> I was able to comolete this project completely independently.	