



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Nina K. Kagan	Project Number J0917
Project Title Battle for the Blind: Is the Mobility Glove More Effective Than the White Cane?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective is to invent a glove using ultrasonic sensors and vibration modules that is more effective to assist mobility in blind people than the typical white cane</p> <p>Methods/Materials 5 blindfolded volunteers went through an obstacle course 10 times, 5 times using the mobility glove and 5 times using the white cane. They were each timed and were recorded on how many times they bumped into objects.</p> <p>Results On average, participants completed the course from 5-10 seconds faster using the mobility glove, but ran into less objects while using the white cane.</p> <p>Conclusions/Discussion Overall, the mobility glove is a helpful invention for the blind to get a more 3 dimensional idea of their surroundings, and might be the next step forward in blind assistive technology. The next invention I am working in is a pair of kneepads that uses this technology at a lower vantage point so things such as steps can be sensed.</p>	
Summary Statement I invented a mobility glove that uses an ultrasonic sensor and tested it in a controlled environment against a white cane.	
Help Received Neighbor helped write code	